

Final Year Project Report
Bug Mesh



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Session

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Dedication

We dedicated this project to Sir Arslan because of his valuable and constructive suggestions during the planning and development of this application and our parents for their support throughout this project. We also dedicated this project to University of Management and Technology and their students.

Final Approval

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Acknowledgment

We wish to express our sincere gratitude to Mr. Arslan Asif (Assistant Professor) for providing us an opportunity to do our final year project under his supervision.

We also sincerely thanks to Miss Ateeqa Naseer (Co-Advisor) for her guidance in carrying out this project work. We also wish to express our gratitude to the officials and other project members of University of Management and Technology who rendered their help during our project work.

We acknowledge with thanks of loving inspiration timely guidance, which we have received from our course advisor Mr. Arslan Asif.

Project Title

Bug Mesh

Objective

The basic purpose of this application is to provide a platform for the students of UMT for particular, and in general purpose anyone can use it. This application will help the students of UMT to understand the procedure of bug tracking. There are three main characters of the system manager, developer and tester. Bug mesh will help increase the efficiency of the testing of the projects. This software will help the students of UMT to understand the procedure of bug tracking and also help in their course study and developments. You can visit <http://bugmeshumt.somee.com/> to use this application.

Undertaken by

Amad Munir

Muhammad Hassan

Munhammad Tahir Saleem

Supervised by

Arslan Asif

Starting Date

24-10-2015

Completion Date

24-08-2016

Tools Used

Microsoft Visual Studio 2012

MS SQL Server 2010

ADO.NET Entity Framework, ASP.NET, ASP.NET MVC 5, Entity Framework 6.0.

Operating System

Windows 10

Documentation

According to new format

Abstract

The name of project is Bug Mesh. The basic purpose of this application is to provide a platform for the students of UMT for particular, and in general purpose anyone can use it.

This software will help the students of UMT to understand the procedure of bug tracking.

There are three main characters of the system manager, developer and tester. Bug mesh will help increase the efficiency of the testing of the projects. Manager should assign the project and also examine the progress of the projects and also told both developer and tester that the bug will be fixed at which time. Developer will be able to develop the system and also edit in the main code of the project. Tester will be able to test the whole project and also fix the bug of the project.

REVISION CHART

Version	Primary Author(s)	Description of Version	Date Completed
<i>Draft</i>	Amad, Hasan and Tahir Saleem	Initial draft created for distribution and review comments	2 weeks
<i>Preliminary</i>	Amad, Hasan	Second draft incorporating initial review comments, distributed for final review	3 weeks
<i>Final</i>	Tahir Saleem, Hasan and Amad	First complete draft, which is placed under change control	4 weeks
<i>Revision 1</i>	Hasan and Amad	Revised draft, revised according to the change control process and maintained under change control	2 weeks
<i>Revision 2</i>	Amad and Tahir	Revised draft, revised according to the change control process and maintained under change control	10 days
<i>Etc.</i>	Hasan, Amad and Tahir Saleem	TBD	12 days

PREFACE

Bug mesh is a web based application. It provides all the information about Bug Tracking. This application is specifically covering bug from all aspects. It describes proper way of tracking bugs to and solve these bugs. It highlights the proper and appropriate method of solving the bugs those defects. This application has the functionality to notify its user about every bug when it finds. It also emphasizes on the significance of bugs in the projects.

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1. INTRODUCTION

1.1 Project Overview

Bug Mash is a web application. It provides all the information about project testing phase. The application is specifically covering testing phase from all aspects. It describes proper way of bug tracking. It highlights the proper method of testing, assign tasks and keep track of whole project. The application has the functionality to notify its user about recent activities and latest information related to the project. It let the users to create project and team members with their roles. The application will include proper database management to keep track of whole project.

1.2 Problem Statement

Already existed applications having problems like:

- Already existed applications have complex design which is not easy to use and understand for users who are known to testing phase.
- No guidelines or tutorials available for the binger's.
- It's free of cost. Where the other software have a trail version only.

The purpose of this project is to fix the above problems and facilitate the users about testing phase of software life cycle from all aspects.

1.3 Customer

A user who is using this application is our respected customer or client. Bug mesh provides basic functionality to its user and it depend on users which type of help they needs.

1.4 Affected Groups

They are the directly targeted user of this application who are going to use this application directly in their daily routine.

- Software Houses
- Students
- All educated people link with software field

1.5 Dependencies/ External Systems

Latest web browsers which supports ASP.Net like Google chrome and Firefox are external systems are required to run this application. Our application is depend on these systems.

1.6 Reference/ Source Documents

We have researched about already existed applications that are related to our project and used them. Besides we have clicked an idea in our mind and we have decided to develop this application with some modification of innovative features. Apps that are related to our application are given below:

- Jira
- Bugzilla
- Bugtrack.net

1.7 Goals

Our main goal is to provide all the basic functionality that is specifically related to bug tracking producer in software testing phase. Student's and software engineers have not enough time to search a good bug tracking software and perform the testing phase. Our goal is to save their time and let them use an efficient bug tracking software free of cost.

1.8 Scope

This project involves the identification of bugs and propose its solution. Bug Mesh system admits single or set of developers to continue tracking of not finished bugs in their products or project successfully. This project allows a single or group of developers or testers to keep path of unfixed bugs in their software successfully. This software will also allow the group members or teammates to share information or have reviews and connect to each other for the bug tracking and their fixing that bugs.

2. FEASIBILITY REPORT

2.1 Project/Product Feasibility Report

The Bug Mesh will be used for purpose of bug-tracking. This will help the user to go through the process of bug-tracking. As we all know that mostly software houses of Pakistan do not use any bug-tracking system or software. And also there is no proper system available in the UMT to avail the students; therefore most of the students of Software Engineering even don't know the bug-tracking system. The main purpose of this software is to facilitate the students of UMT the bug-tracking system. If further versions will be established that may be useful for professional use.

There are many ways to implement this system and many platforms are also available e.g. PHP Ruby on Rails and ASP .NET etc. We have decided to complete this project or system in ASP .net framework 5.0 where html will be at front end and C# will handle the logical part or work at the back end. We are using MS Visual studio 2012 for this purpose. There are many reasons that why we are using ASP .NET than PHP because it is faster, cheap, platform independent and it has more language support than PHP.

2.1.1 Technical Feasibility

The system can be developed. As we know that there are many bug-tracking systems are running in many organizations all over the world but we assure you that this system will fulfill the basic needs of a bug-tracking system. It may not have that much functionality as compare to famous bug-tracking systems. We have the students who will develop this system and we will complete it under the expertise.

2.1.2 Operational Feasibility

The Bug Mesh will be used for the bug-tracking within a project. It will be simple and easy to use and yes it is worth solving the problem of bug-tracking because it will helpful for the students of UMT and in future for professional users may be. This system will be useful for Team leader, Tester, Developer and all other persons involved in tracking and resolving a bug with in a project or software. The users will find a simple solution for their enormous problems. It will hopefully cater all the requirements gathered or required.

2.1.3 Economic Feasibility

This project is economically is feasible too. Bug Mesh is simply a bug-tracking software which helps the users within an organization to track and solve the bugs. This project is a simple project related to asp.net framework where C# will be on back end and HTML will provide the front end or the interface

with which user will interact and use the software. To make sure that the project is economically feasible we have gone through the cost estimation process. We divided the project in two parts one is the front end and other is the back end.

It will be beneficial in both aspects of tangible and intangible. The project is in low cost of tangible or the hardware required. The user do not have to collect to much hardware to use the Bug Mesh it only includes following.

- 1) Computer

2.1.4 In case of intangible devices or technology the user only need the internet connection.

2.1.5 Schedule Feasibility

The project is totally feasible in terms of time while using the resources and the staff available. The project will take only one year to complete.

2.1.6 Specification Feasibility

The project will be able to perform the functionalities defined in the requirements. The system will be able to perform the basic functionality of a bug tracking system as defined the product scope.

2.1.7 Information Feasibility

The Bug Mesh will hold the information in a proper way and save the information in a database using the Microsoft visual studio SQL database. The data will be safe and reliable.

2.1.8 Motivational Feasibility

Staff is required to fulfill the operational and the developmental goals. The necessary steps will correctly and promptly must occur.

2.2 Project/Product Scope

The scope of project is very vast if described in words, the project will cater the facilities for the every person inside a software developing organization. This will be helpful for team leader, tester, and developer and as well as other team members. It will include following functionality.

- 1) Login
- 2) Logs
- 3) History (project details)
- 4) User Profiles

- 5) Assignments
- 6) Notification
- 7) Due date alerts
- 8) Admin rights
- 9) User Privileges
- 10) Bug details
- 11) Reports

Every user of this system will be able to manage their profiles and see the assignments assigned to them and the time alerts notifications. On the other hand the team leader and the admin have the rights to see all the details of projects. The logs will also be maintained. The database is managed in a way that data fetching and storing is very easy.

2.3 Project/Product Costing

Project Costing is simple calculated by FP because we cannot estimate the cost on the basis of previous record or the budget cost and developer's salary. So the process of cost estimation is done below using FP method.

2.4 Introduction to Team member and their skill set

We are three members of this project our team leader of this project is Amad Munir he is good in web programming and he will do work on HTML and CSS and second members is Muhammad Hassan he will do work on back end like Asp.net, C# and MSSQL and third member is Muhammad Tahir Saleem and he is also do work on html CSS and .net and all people are interested in project.

2.4.1 Tools and Technology with reasoning

- Visual studio 2012
- Notepad++
- ADO.NET Entity Framework, ASP.NET, ASP.NET MVC 5, Entity Framework 6.0.

2.4.2 Host (or development) platform(s).

- Asp.net
- MSQL

2.4.3 Target platform(s).

- Asp.net

- MSSQL

2.4.4 Programming language

Html5, Css3, .net, C#

2.4.5 Budget and time constraints

Eight month

3. STAKE HOLDERS

Regular users those are going to download or use online this application in their laptops and desktop systems, **Manager** of the project who assign the work to **developers and tester** in this Bug Mesh application because they earn through this application.

4. DOMAIN ANALYSIS

Domain of project Bug Mesh is a software industrial domain. The application covers one of the most important pillar of software industry “Testing”. We are going to build all the UML diagrams in this domain which will further use in implementation.

5. SYSTEM FUNCTIONS/ FUNCTIONAL REQUIREMENTS

Functional Requirements:

Our objective is to create a bug tracking application.

Functional requirements:-

- a. Administrative functions
- b. Authentication
- c. View all Projects in the application.
- d. Delete all projects in the application.
- e. View all the users.
- f. Delete all the users.

➤ **Importance of Bug Mash:**

The app will emphasize on the importance of Testing in SDLC.

➤ **Proper way of Bug tracking:**

It will show the proper way of bug tracking with the help of pdf document to clarify the user all its functionality.

➤ **Proper track of whole project:**

It will help the user to keep track of whole project and user can retrieve all information about previous projects and their details.

➤ **Manager right and simple user privileges:**

Manager have the rights to create user logins and other admin functionality. While on other hand simple have limited functionality.

➤ **Feedback:**

Users can give us feedback either they like this app or not.

5.1 Non-Functional Requirements

Non-Functional requirements:-

- a. Capacity
- b. Availability
- c. Reliability
- d. Usability
- e. Security
- f. Performance (Better Response Time)
- g. Tools:

Following are the tools used in this project.

1. MS SQL Server 2010
2. C#
3. ADO.NET Entity Framework, ASP.NET, ASP.NET MVC 5, Entity Framework 6.0.
4. Microsoft Visual Studio 2012.

6. EXPLORATORY STUDY

We have researched about already existed applications that are related to our project and used them like Bug tracker, JIRA, Bugzilla, and Bug herd.

6.1 Weaknesses:

- Already existing applications interface is more complex.
- It is difficult to understand for a beginner.
- The existing systems have almost zero learnability.
- Difficult for the user to remember these applications.

6.2 Strengths:

- Facilitate the user about step by step to resolve the bug.
- It tells the users about condition on which the bugs are removed and how it should performed worker after that.
- Provide users daily routine work in the form of graphs.

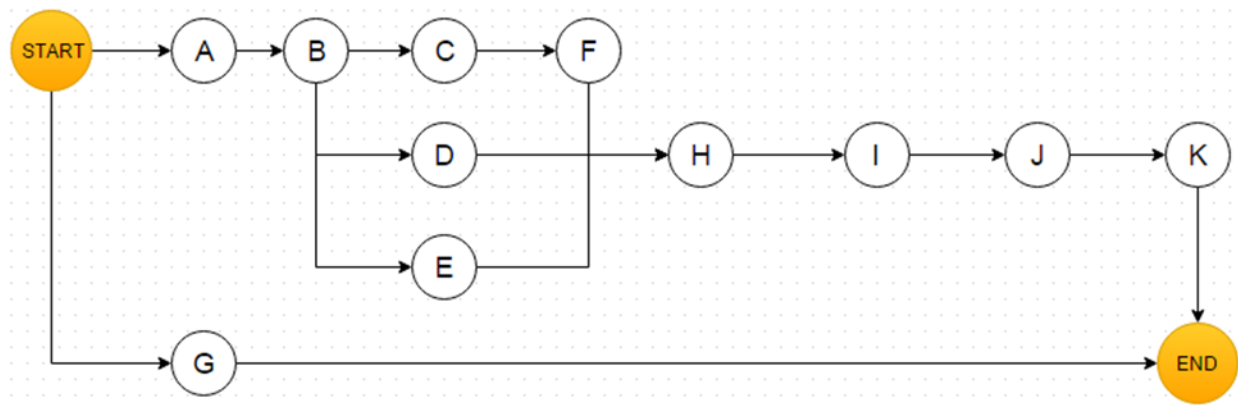
7. CONTEXT OF USE

Users can use this application in their laptops and desktop computer. Users are required to login and sing up to use this application we are providing authentic information to them on e-mail address which the user provides during sing up.

8. NETWORK DIAGRAM AND CRITICAL PATH METHOD (CPM)

Name	Start Date	End Date	Description
A	8-10-15	9-11-15	Proposal
B	10-11-15	10-12-15	Deliverable including abstract, feasibility report and Scope of project.
C	11-12-15	5-1-16	Deliverable including detailed scope, Functional and non-functional requirements, Data flow diagram Use Cases of project.
D	6-1-16	12-1-16	Cost Estimation
E	13-1-16	20-1-16	Gant Chart Designing and Shall Statements
F	21-1-16	31-1-16	E-R Diagram
G	1-2-16	1-2-16	Sample Application
H	2-2-16	1-4-16	App Development
I	2-4-16	3-5-16	App Testing
J	4-5-16	1-6-16	App Debugging
K	3-6-16	5-6-16	App Deployment

Network Diagram:

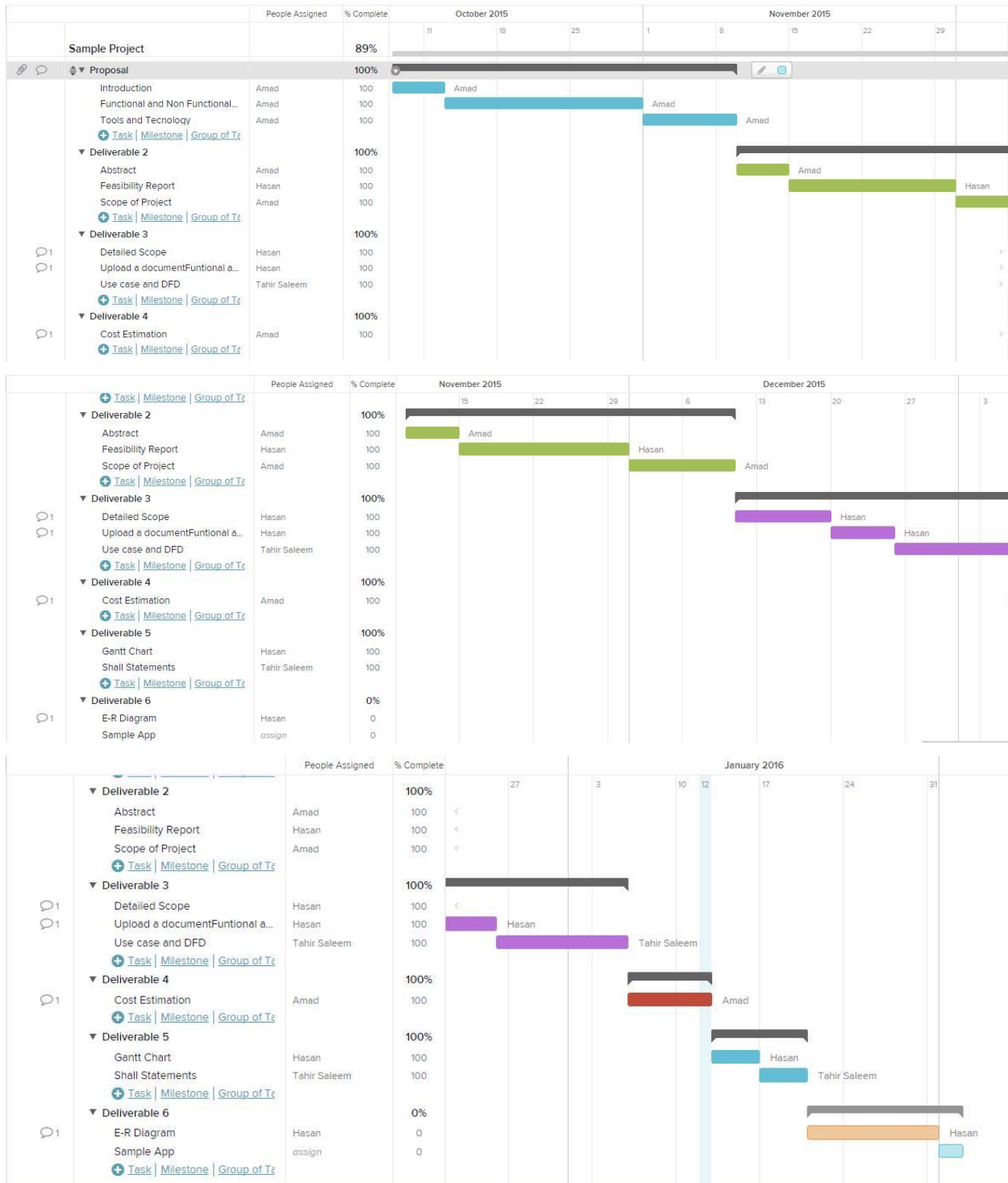


Activities	Duration	ES	EF	LF	LS	TS
A	33	0	33	33	0	0
B	30	33	63	63	33	0
C	26	63	89	89	63	0
D	7	63	70	100	93	30
E	8	63	71	100	92	29
F	11	89	100	100	89	0
G	1	0	1	218	219	219
H	60	100	160	160	100	0
I	31	160	191	191	160	0
J	27	191	218	218	191	0
K	2	218	220	220	218	0

Critical Path:

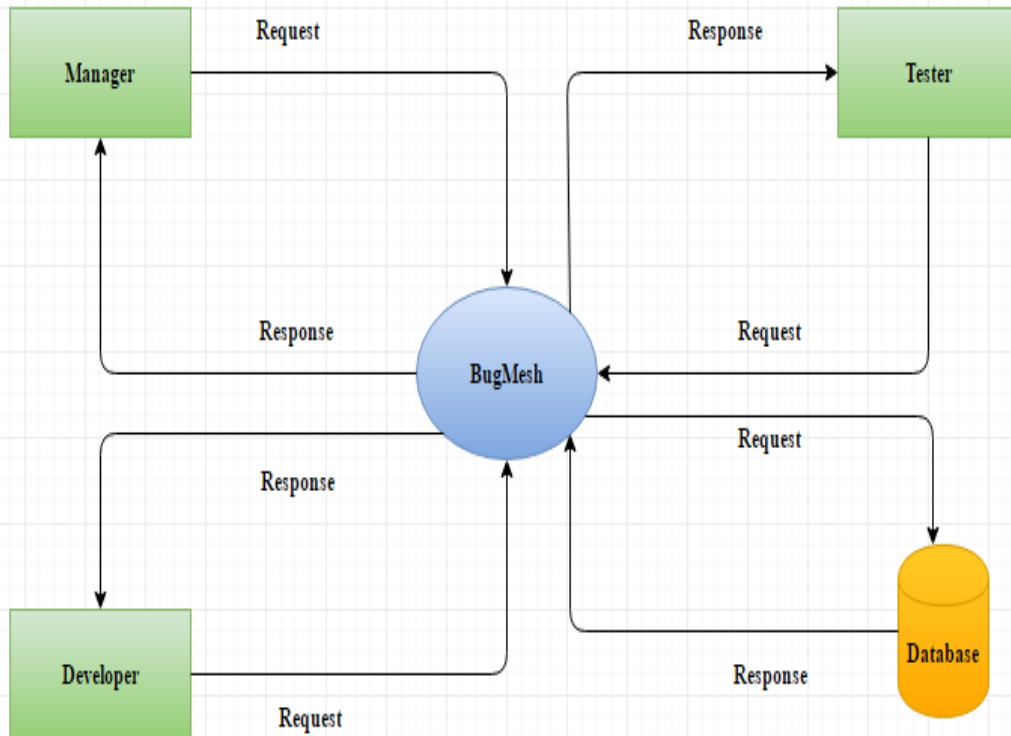
A → B → C → F → H → I → J → K

9. GANTT CHART

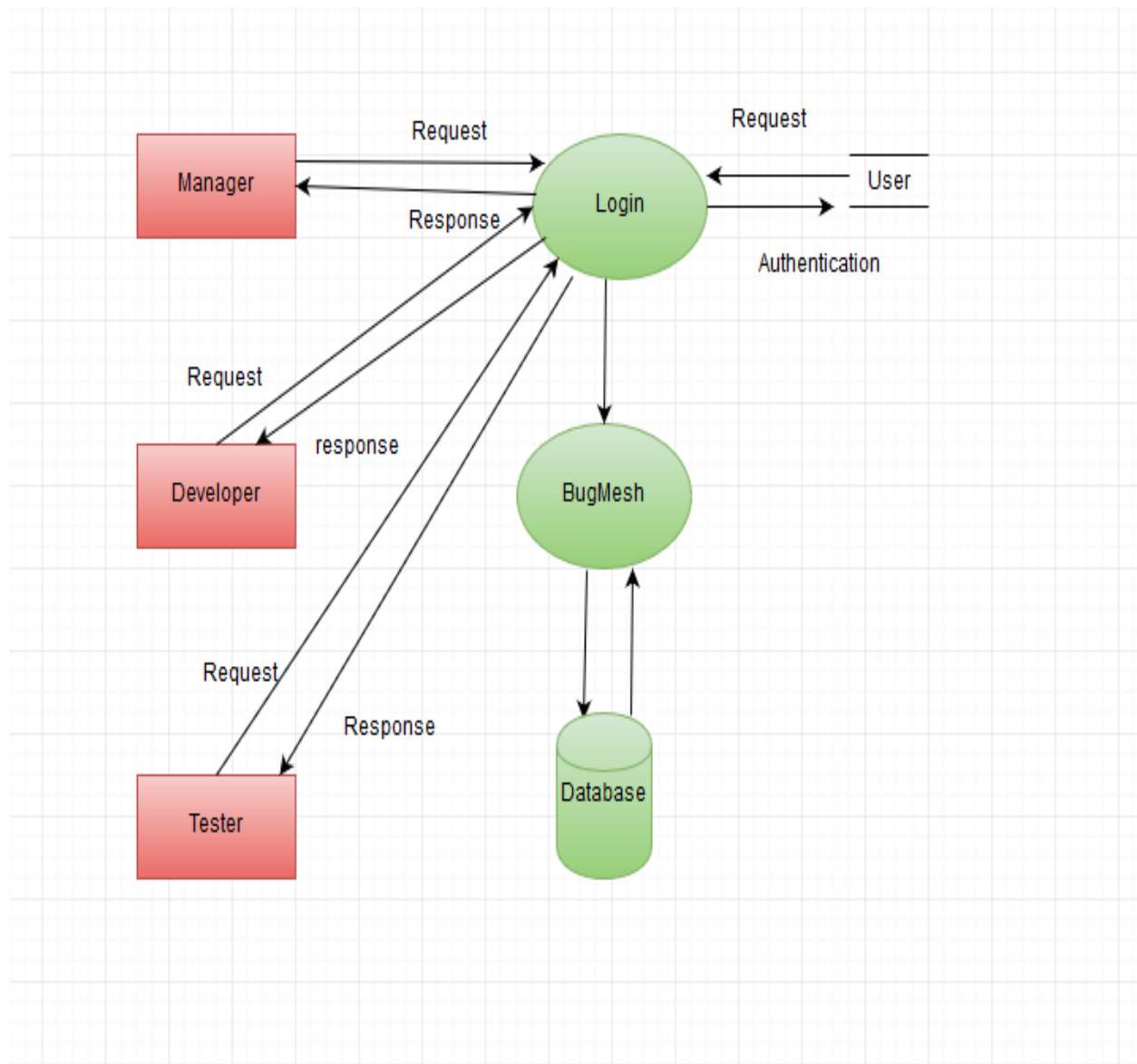


10. DATA FLOW DIAGRAM

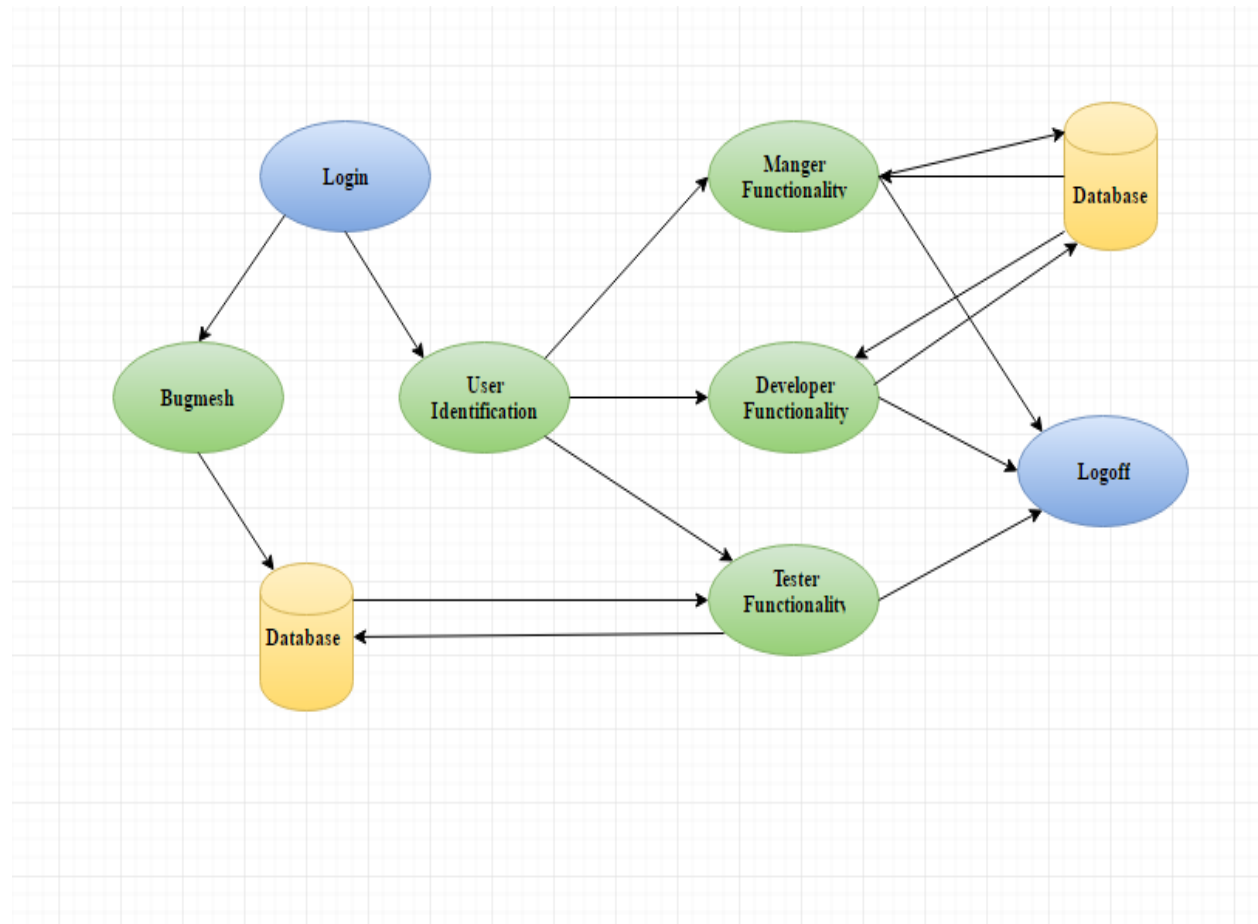
10.1 Data Flow Diagram Level 0



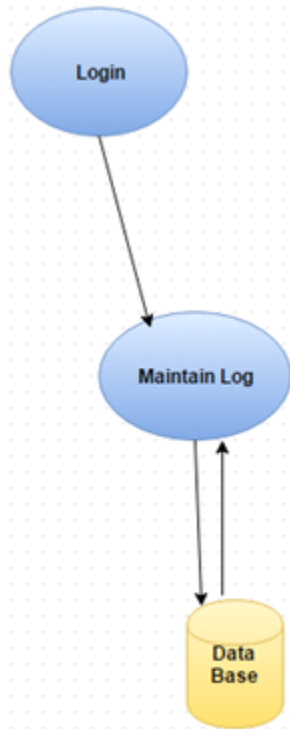
10.2 Data Flow Diagram Level 1



10.3 Data Flow Diagram Level 2

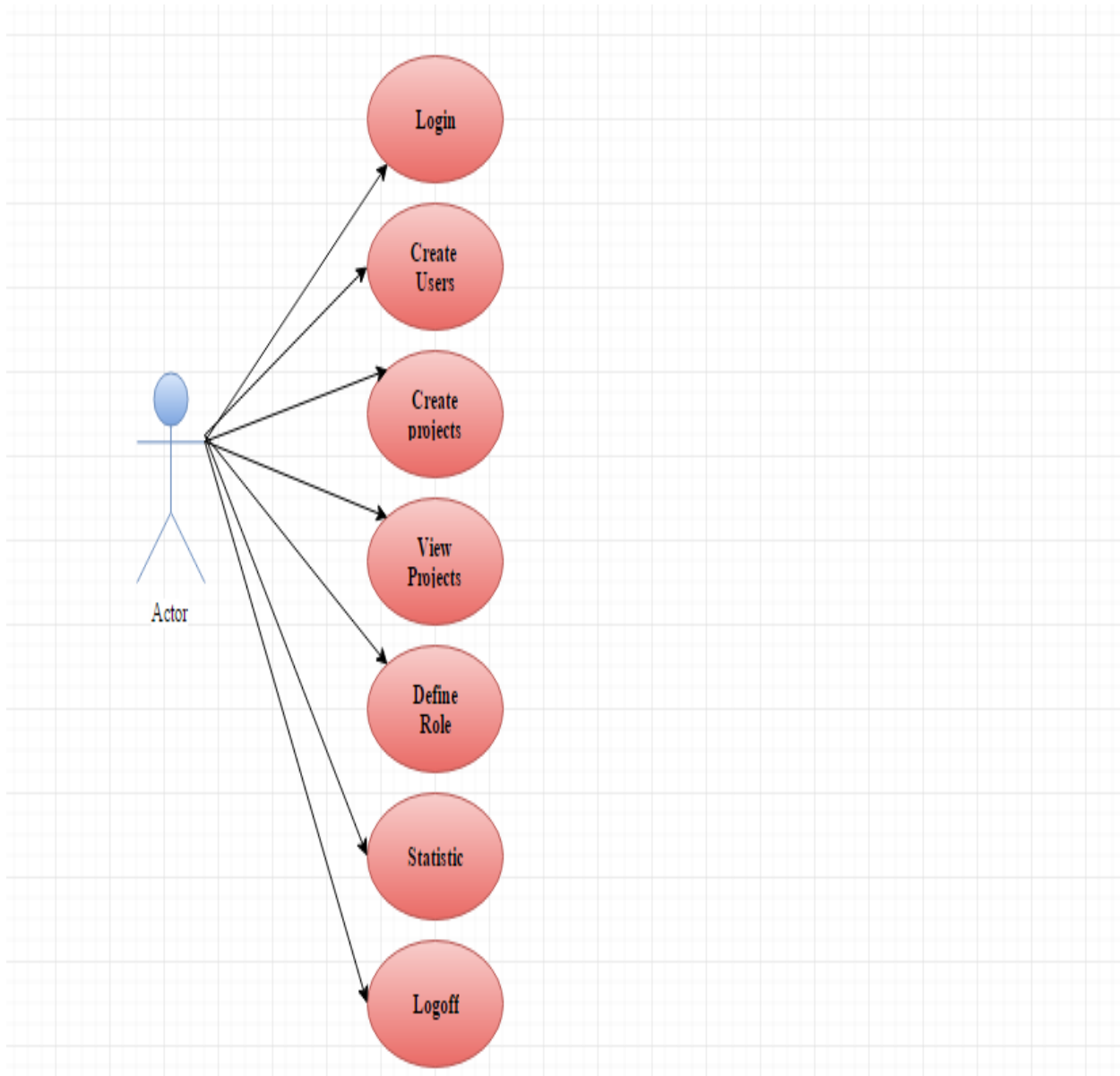


10.4 Data Flow Diagram Level 3

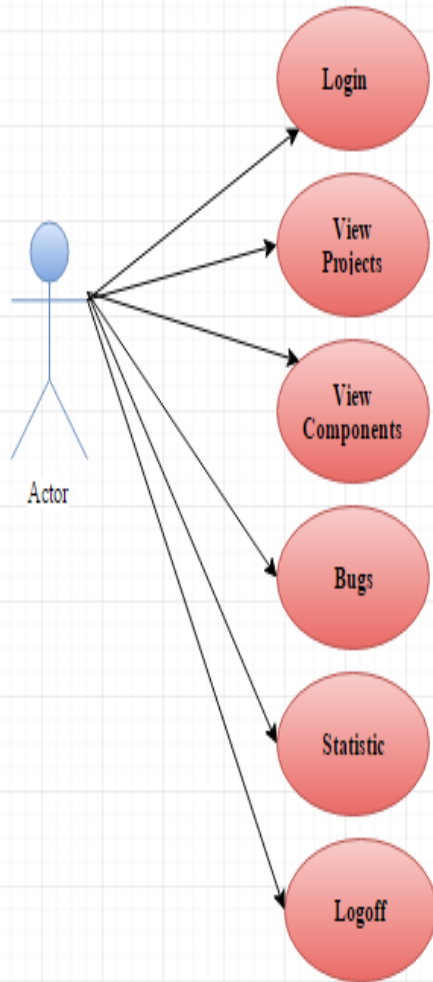


11. USECASES

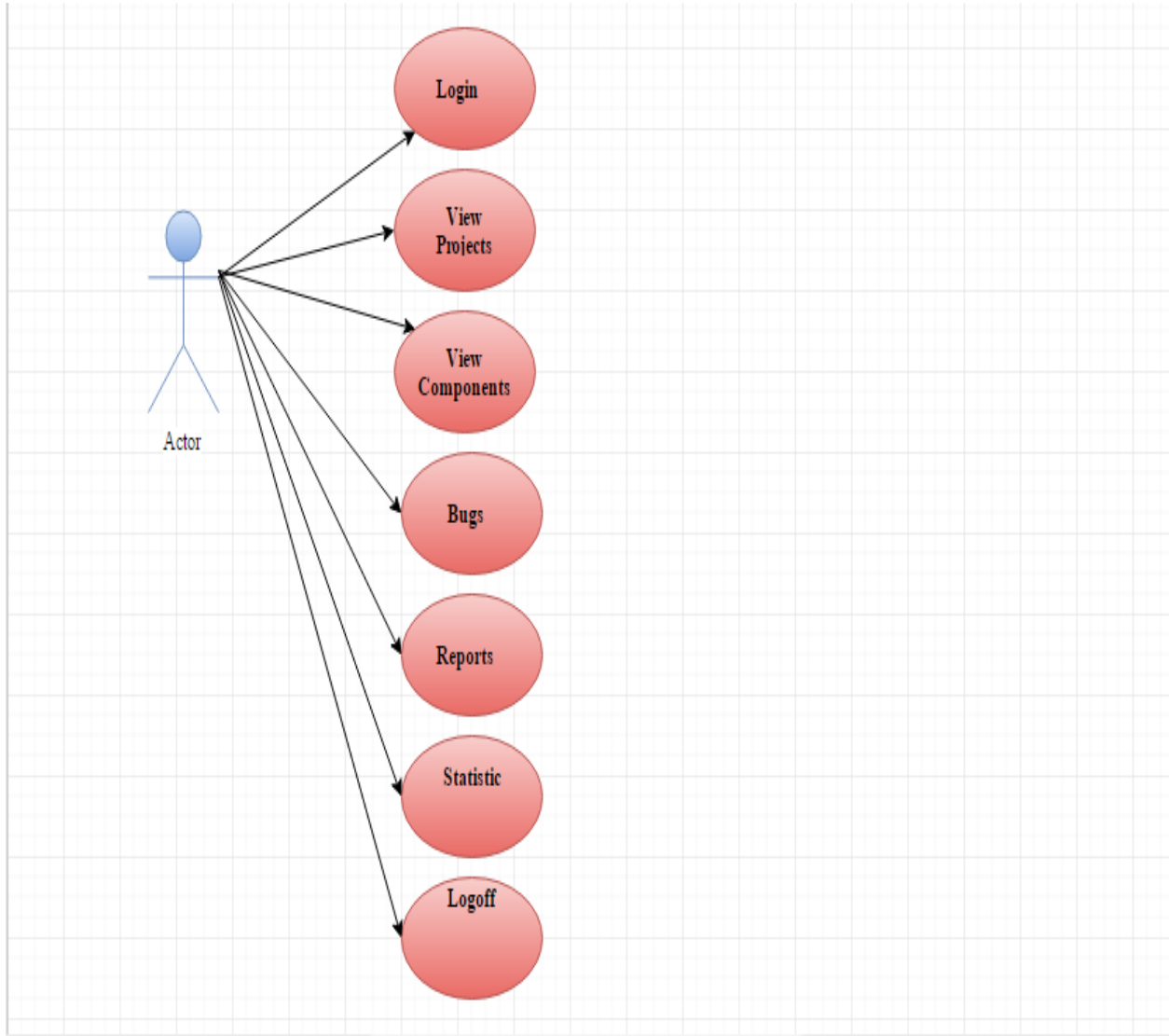
11.1 UseCase (Manager)



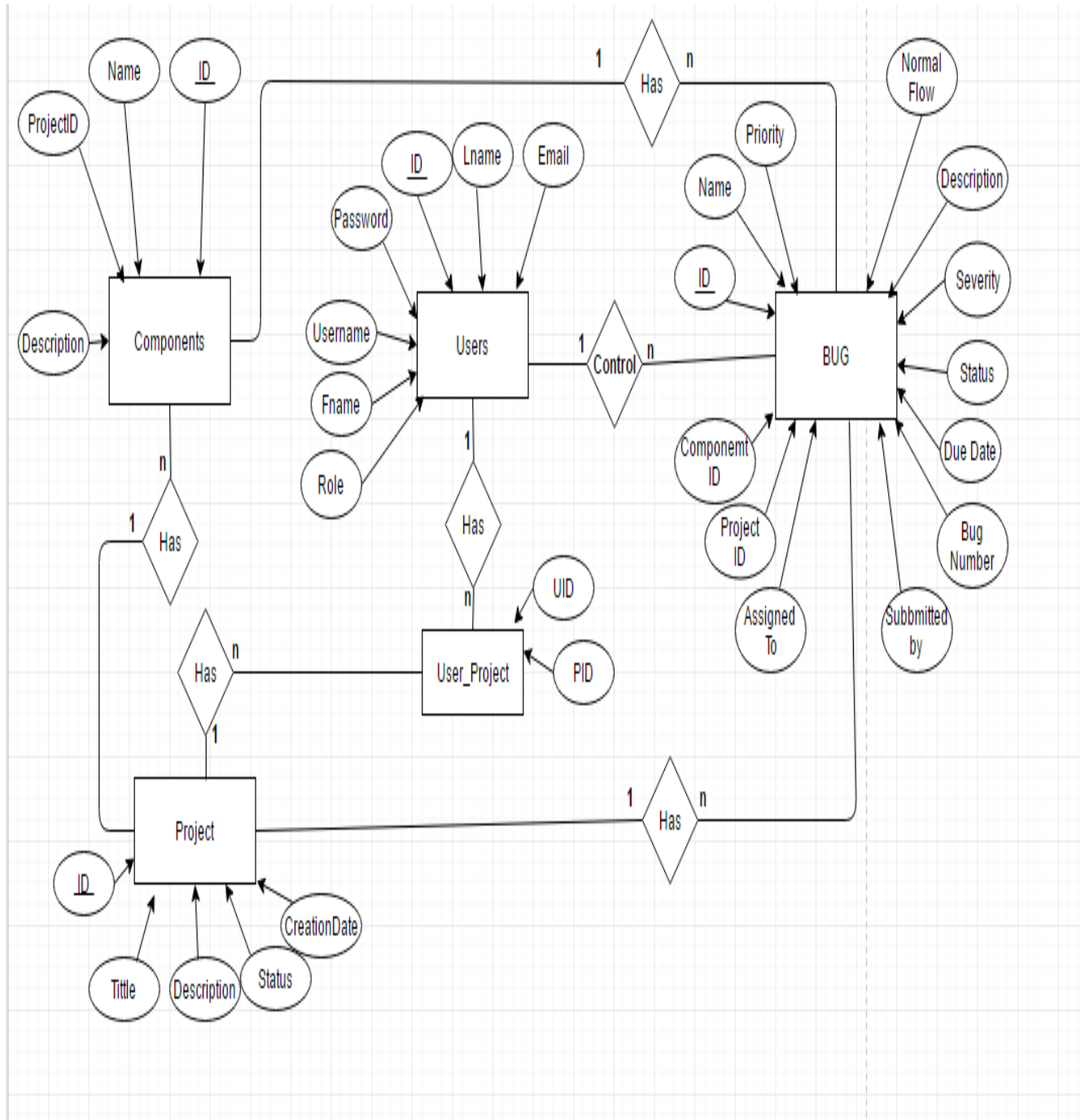
11.2 UseCase(Developer)



11.3 UseCase(Tester)



12. ERD DIAGRAM



13. USER INTERFACE

User Manual:

13.1 Home page:

Client have a web association and a web program like google chrome, Internet Explorer, Mozilafirefox and Opera to utilize this application. Client open the web program and hunt down Bug Mesh testing device and press enter our application landing page show to our clients.

BugMesh Home About Register Log in

BugMesh

This Application is developed in ASP.Net Entity Framework 6.0 and MVC5 to achieve the goal of bug tracking.

Getting started

Bug Mesh Provide a simple and Efficient Solution for bug tracking. Which is easy to understand, free and allways will be.

Get Connected

By using BugMesh you donot have to share documents through email or Usb anymore. You donot have to take care of maintaing backup or ledger.BugMesh do all for you.

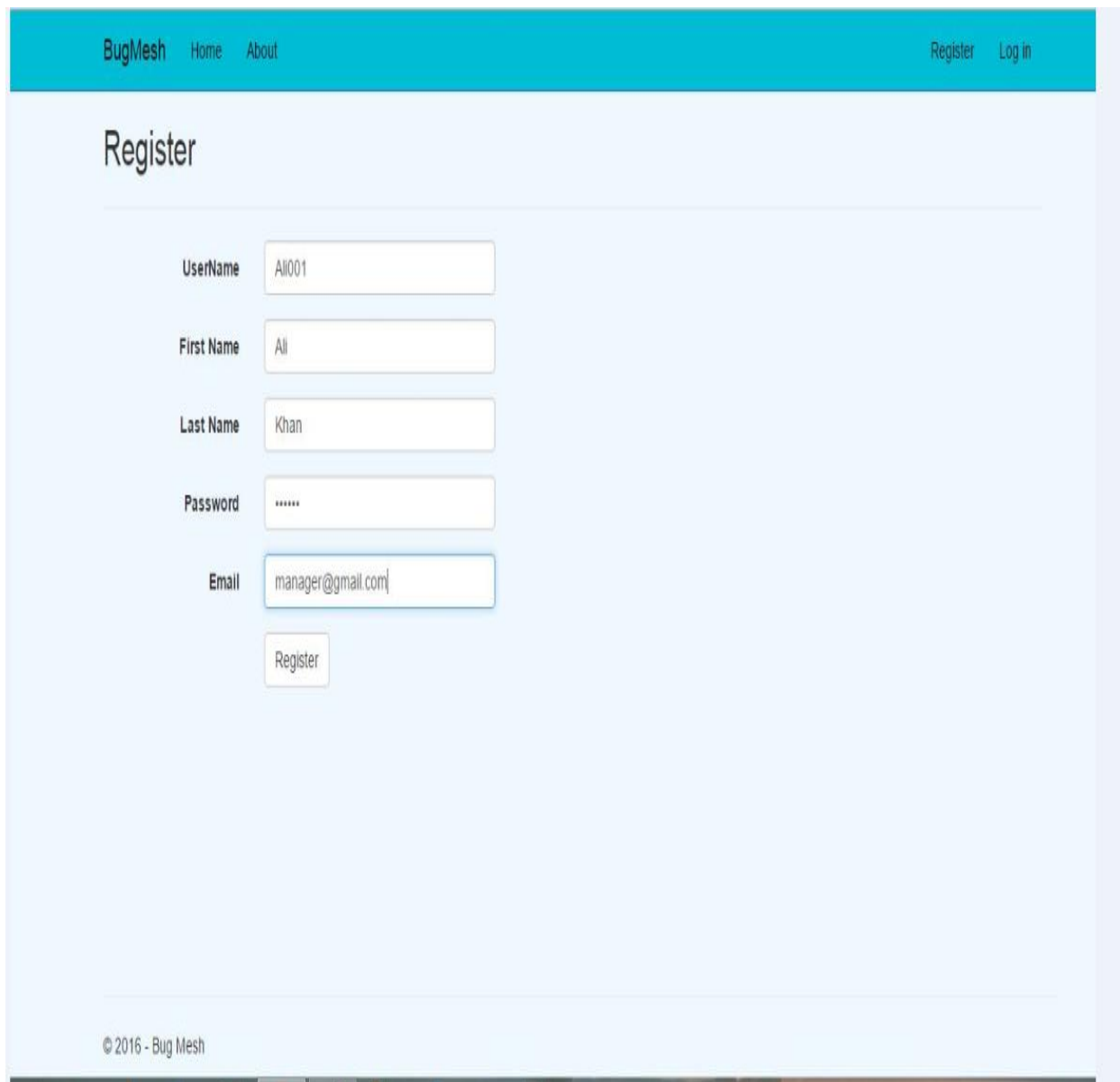
Better Service

Now you donot have to sit inside the office and download the excel file for todays bugs and their reports. BugMesh provides you the Simple and acceable from anywhere anytime in the world (24/7).

Web hosting by Somee.com

13.2 Registration:

Customer can't login particularly first customer got selection in enlistment customer have a couple fields like User name, First name, Last name, Password and Email decision in the wake of filling each one of these fields customer cloud click on Register catch to perform further functionalities .



The screenshot displays the registration page for BugMesh. The page has a teal header with the BugMesh logo and navigation links for Home and About. On the right side of the header, there are links for Register and Log in. The main content area is light blue and features a 'Register' heading. Below the heading, there are five input fields: Username (containing 'Ali001'), First Name (containing 'Ali'), Last Name (containing 'Khan'), Password (containing six dots), and Email (containing 'manager@gmail.com'). A 'Register' button is positioned below the email field. At the bottom left of the page, there is a copyright notice: '© 2016 - Bug Mesh'.

13.3 Login:

After getting register successfully there is a login screen showed to the user after filling the fields of username and password user can successfully login to this application.

The screenshot displays a web application's login interface. At the top, a dark blue navigation bar includes the site name 'BugMesh' and links for 'Home' and 'About' on the left, and 'Register' and 'Log in' on the right. The main content area has a light blue background and is titled 'Login'. It features two text input fields: one for 'UserName' and one for 'Password'. A 'Login' button is positioned below the password field. At the bottom left of the page, a copyright notice reads '© 2016 - Bug Mesh'.

13.4 Super Admin:

Super administrator have some additional functionalities super administrator can see both ventures and clients. At the point when super administrator click on ventures there is a rundown open of the all anticipates to the super administrator and when snap on the clients all the enrolled client are appeared to the super administrator. Super administrator have the rights to erase any task and client from the rundown.

The screenshot displays the BugMesh Super Admin interface. At the top, there is a teal navigation bar with the BugMesh logo and links for Home and About Us on the left, and My Home, Hello Admin, and Log off on the right. Below the navigation bar, the main content area is titled "Admin" and features two large green panels. The left panel is titled "Projects" and contains the text "This Tab is to List all the projects in the application." with a blue button labeled "Projects »". The right panel is titled "Users" and contains the text "This Tab is to List all the Users in the application." with a blue button labeled "Users »". At the bottom left of the page, there is a copyright notice: "© 2016 - Bug Mesh".

13.4.1

BugMesh [Home](#) [About Us](#)
My Home [Hello Admin](#) [Log off](#)

Home → Projects

Delete

Select	Title	Description	Status	CreationDate
<input type="checkbox"/>	BugMesh	Testing Tool ha	Open	1/1/0001 12:00:00 AM
<input type="checkbox"/>	BugMesh	tool	Open	8/9/2016 12:00:00 AM
<input type="checkbox"/>	BugMesh	Testing tooll	Open	1/1/0001 12:00:00 AM
<input type="checkbox"/>	Bug Mesh	Testing tool	Open	8/11/2016 12:00:00 AM
<input type="checkbox"/>	1	1	Open	8/11/2016 12:00:00 AM
<input type="checkbox"/>	2	2	Open	8/11/2016 12:00:00 AM
<input type="checkbox"/>	3	3	Open	8/11/2016 12:00:00 AM
<input type="checkbox"/>	4	4	Open	8/11/2016 12:00:00 AM
<input type="checkbox"/>	5	5	Open	8/11/2016 12:00:00 AM
<input type="checkbox"/>	6	6	Open	8/11/2016 12:00:00 AM
<input type="checkbox"/>	7	7	Open	8/11/2016 12:00:00 AM
<input type="checkbox"/>	8	8	Open	8/11/2016 12:00:00 AM
<input type="checkbox"/>	9	9	Open	8/11/2016 12:00:00 AM

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13.4.2

BugMesh Home About Us
My Home Hello Admin Log off

Users

[Home](#) → [Users](#)

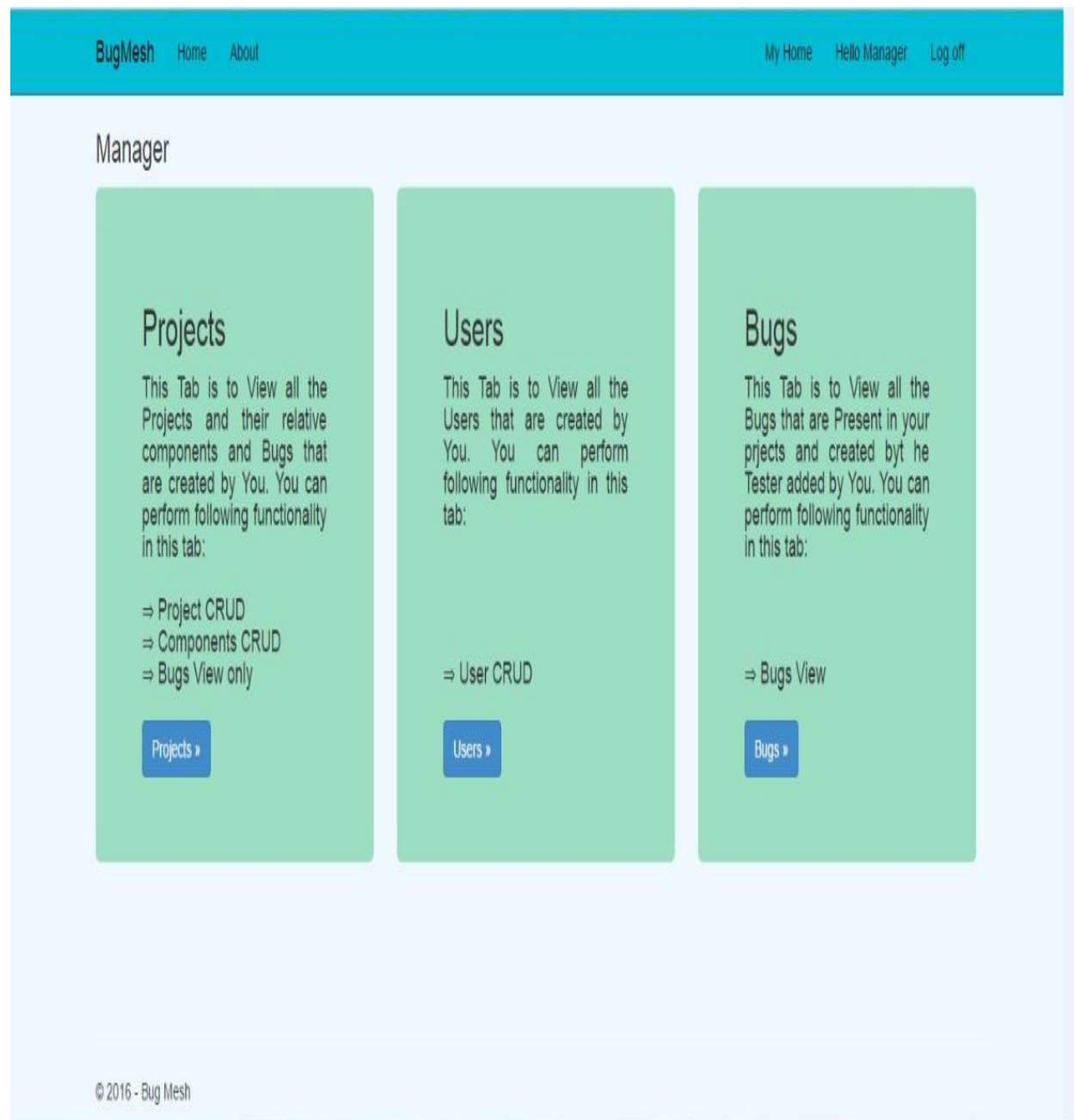
Delete

Select	UserName	Password	First Name	Last Name	Email	Role
<input type="checkbox"/>	Ali	ali12345	Ali	khan	ali@gmail.com	Developer
<input type="checkbox"/>	Bilal	bilal12345	Bilal	khan	bilal@gmail.com	Tester
<input type="checkbox"/>	Manager	123456	Manager	Manager	manager@gmail.com	Manager
<input type="checkbox"/>	Tahir	123456	Tahir	Tahir	tahir886@gmail.com	Manager
<input type="checkbox"/>	Admin	arslan12345	Arslan	Asif	arslan.asif@umt.edu.pk	Admin
<input type="checkbox"/>	Aslam	asdfgh	Aslam	Lawn	a@gmail.com	Tester
<input type="checkbox"/>	Amad1	Anad123	Amad1	munir	amadmunir0@gmail.com	Manager
<input type="checkbox"/>	amad123	amad123	Amad	a	a	Manager
<input type="checkbox"/>	Hasan123	hasan123	hasan	Mir	hasanmir777@gmail.com	Developer
<input type="checkbox"/>	Tahir123	tahir123	Tahir	Saleem	tahir886@gmail.com	Tester
<input type="checkbox"/>	Tahir1234	tahir123	Tahir	Saleem	tahir886@gmail.com	Tester

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13.5 Manager home page:

After login this application client register as an administrator of the task and see three principle catches of activities, clients and bugs. Where he can observe every one of the bugs, clients and also all anticipates. Where every one of the insights about ventures, and bugs are composed plainly. Client can read and see effectively what he can do while he was utilizing our web application.



13.6 Create Project:

Project manager create a new project after filling these fields no-other user can create projects else the manager of the project.

[BugMesh](#) [Home](#) [About](#) [My Home](#) [Hello Manager](#) [Log off](#)

Create Project

Title

Description

[Back to List](#)

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13.7 Manager→Projects:

After login and clicking on projects on manager page user should be available to visit this screen where manager can view all the projects with their description, status, creation date and closed date. Manager has also writes to create a new user with their roles.

BugMesh Home About My Home Hello Manager Log off

Projects

Manager → Projects

[Create New](#)

Title	Description	Status	CreationDate
-------	-------------	--------	--------------

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13.8 Create new:

After clicking on create new in manager → project there are some empty fields show to the managers like User Name, First Name, Last Name, Password, and Email after that there is a drop down menu where manager can define the role of the user like developer or tester and assign work according to their fields

BugMesh [Home](#) [About](#) [My Home](#) [Hello Tahir](#) [Log off](#)

Create

[Manager](#) → [Projects](#) → [Users](#) → Create

User

UserName	<input type="text" value="Amad"/>
First Name	<input type="text" value="Amad"/>
Last Name	<input type="text" value="Munir"/>
Password	<input type="password" value="....."/>
Email	<input type="text" value="amadmuniro@gmail.com"/>
Role	<input type="text" value="Developer"/>

[Back to List](#)

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13.8.1

BugMesh Home About My Home Hello Tahir Log off

Create

[Manager](#) → [Projects](#) → [Users](#) → Create

User

UserName

First Name

Last Name

Password

Email

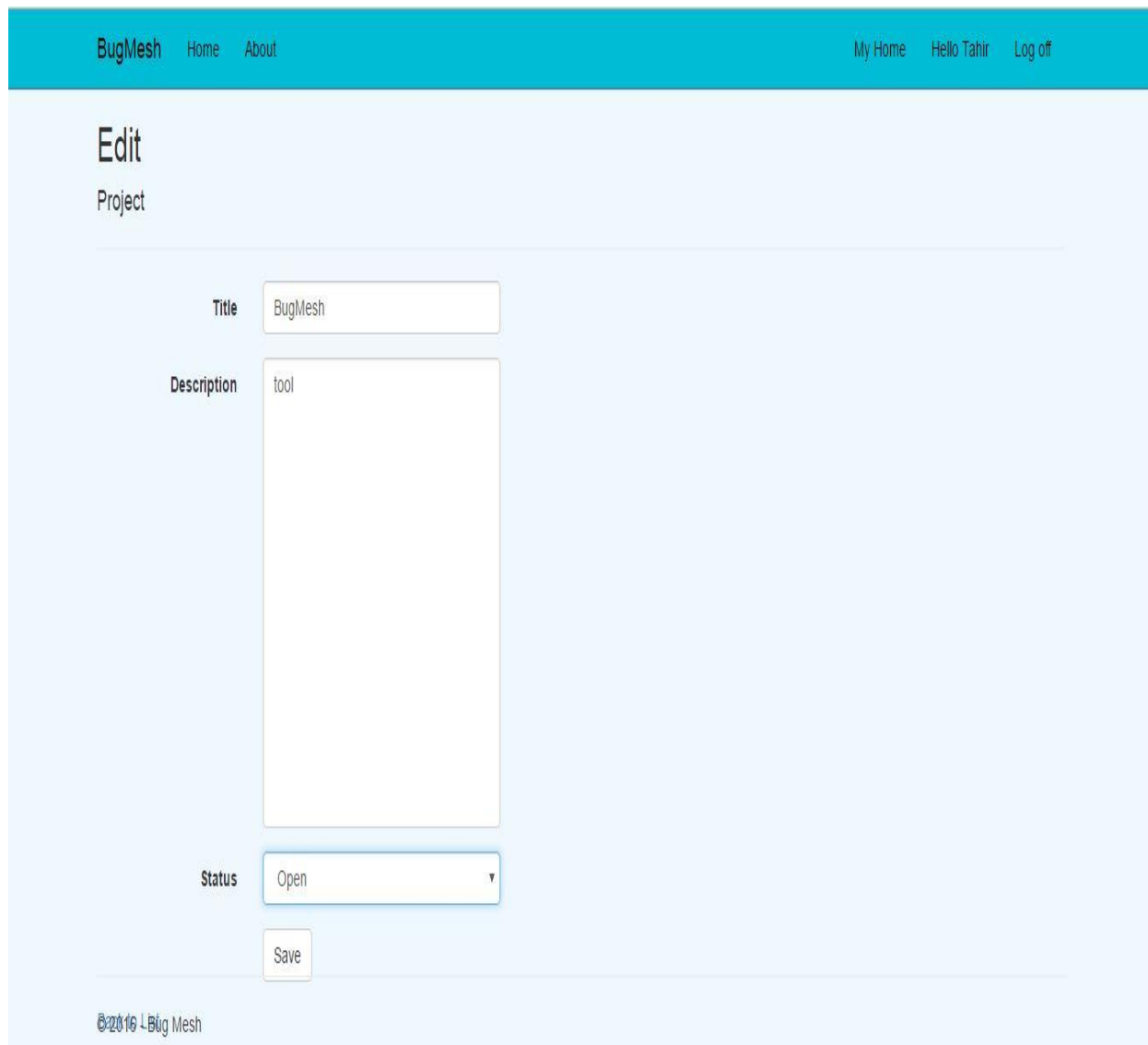
Role

[Back to List](#)

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13.9 Edit:

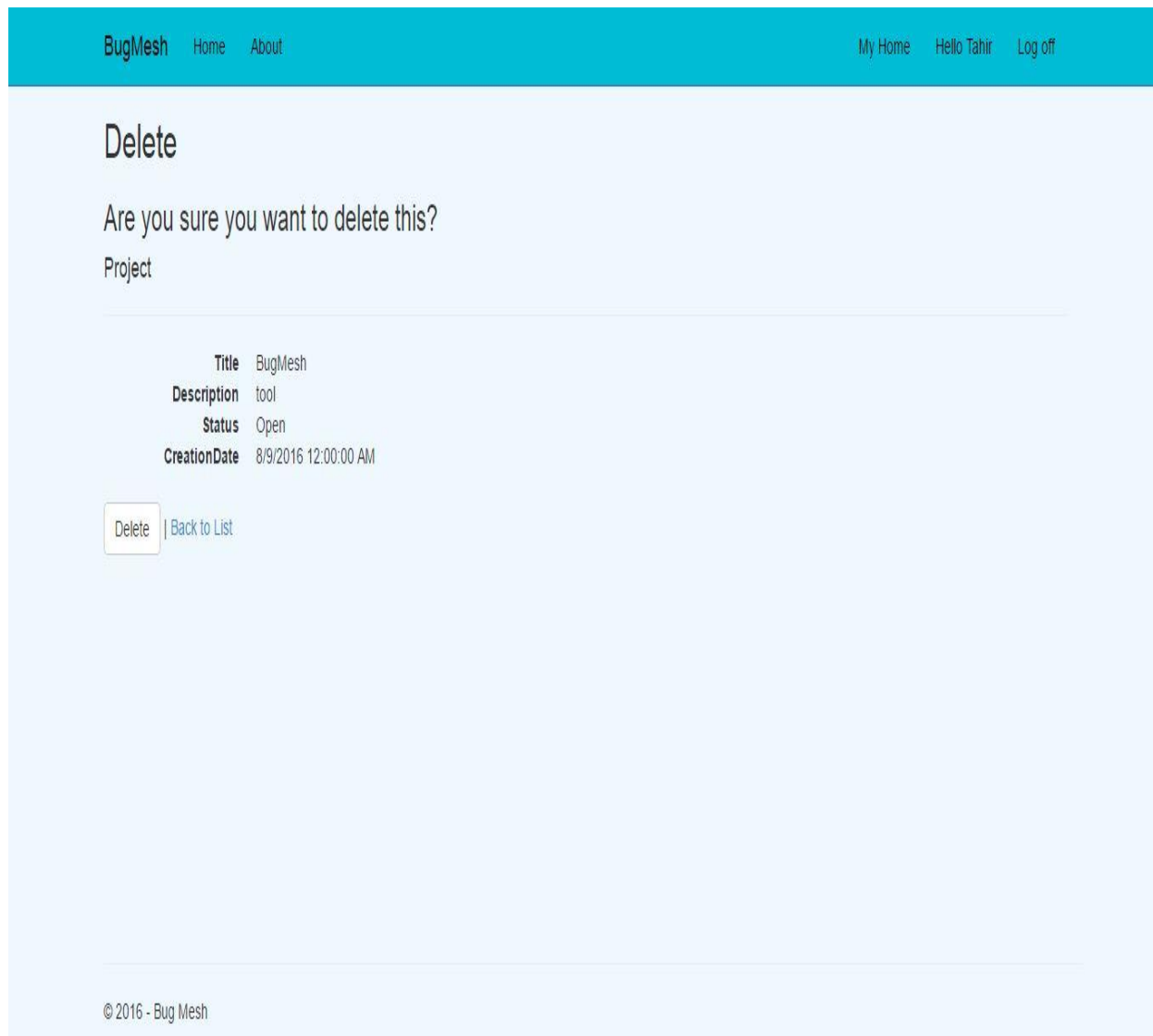
Project manager also edit the projects where there are some fields like Title, Description and save. Manager can describe all the things about project here which he think these are important things. After press saving user can return on manager → project page and perform farther functionalities.



The screenshot displays the 'Edit Project' interface. At the top, a teal navigation bar contains 'BugMesh', 'Home', and 'About' on the left, and 'My Home', 'Hello Tahir', and 'Log off' on the right. The main content area has a light blue background. The title 'Edit Project' is positioned at the top left. Below it, the form includes a 'Title' field with the value 'BugMesh', a 'Description' field with the value 'tool', and a 'Status' dropdown menu currently set to 'Open'. A 'Save' button is located at the bottom of the form. A breadcrumb trail at the bottom left shows 'Home > Bug Mesh'.

13.10 Delete:

Administrator additionally have the rights to erase the whole venture After tapping on the erase catch a page opened with every one of the subtle elements of the task with their title, portrayal, status and creation date there is a catch in the base of the data with back to list if client click this catch venture erased and the client come back to the manager project page.



The screenshot displays a web application interface with a teal header. The header contains the text 'BugMesh Home About' on the left and 'My Home Hello Tahir Log off' on the right. The main content area is light blue and features a large heading 'Delete'. Below the heading is the question 'Are you sure you want to delete this?' followed by the word 'Project'. A horizontal line separates this text from a table of project details. The table lists: Title BugMesh, Description tool, Status Open, and CreationDate 8/9/2016 12:00:00 AM. At the bottom of the table, there are two buttons: 'Delete' and 'Back to List'. At the very bottom of the page, there is a copyright notice: '© 2016 - Bug Mesh'.

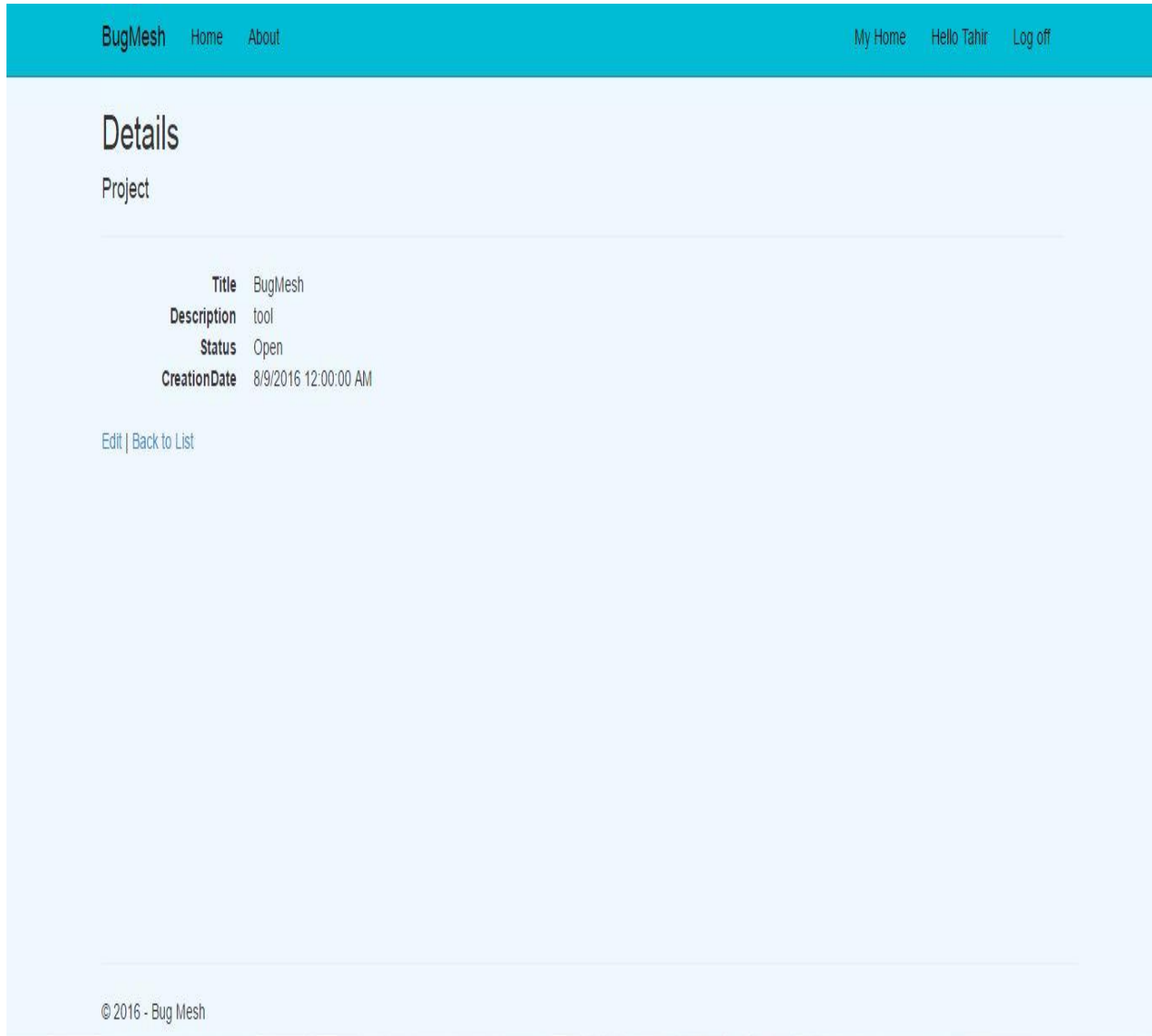
Title	BugMesh
Description	tool
Status	Open
CreationDate	8/9/2016 12:00:00 AM

[Delete](#) | [Back to List](#)

© 2016 - Bug Mesh

13.11 Details:

Administrator likewise have the rights to watch the subtle elements of the whole venture After tapping on the points of interest catch a page opened with every one of the points of interest of the undertaking with their title, depiction, status and creation date there is a catch in the base of the data with back to list if client click this catch client ought to have the capacity to alter the task subtle elements.



The screenshot displays a web application interface. At the top, there is a teal navigation bar with the text 'BugMesh Home About' on the left and 'My Home Hello Tahir Log off' on the right. Below the navigation bar, the page title 'Details' is prominently displayed. Underneath, the word 'Project' is shown. A horizontal line separates the title from a table of project details. The table lists the following information: Title: BugMesh, Description: tool, Status: Open, and CreationDate: 8/9/2016 12:00:00 AM. Below the table, there are two links: 'Edit' and 'Back to List'. At the bottom of the page, a copyright notice reads '© 2016 - Bug Mesh'.

Title	BugMesh
Description	tool
Status	Open
CreationDate	8/9/2016 12:00:00 AM

[Edit](#) | [Back to List](#)

© 2016 - Bug Mesh

13.12 Project Components:

User can also view the components of the project after following a proper way and also watch the other fields related to that projects like name, title etc.

BugMesh Home About My Home Hello Tahir Log off

Components

[Manager](#) → [Projects](#) → Components

[Create New](#)

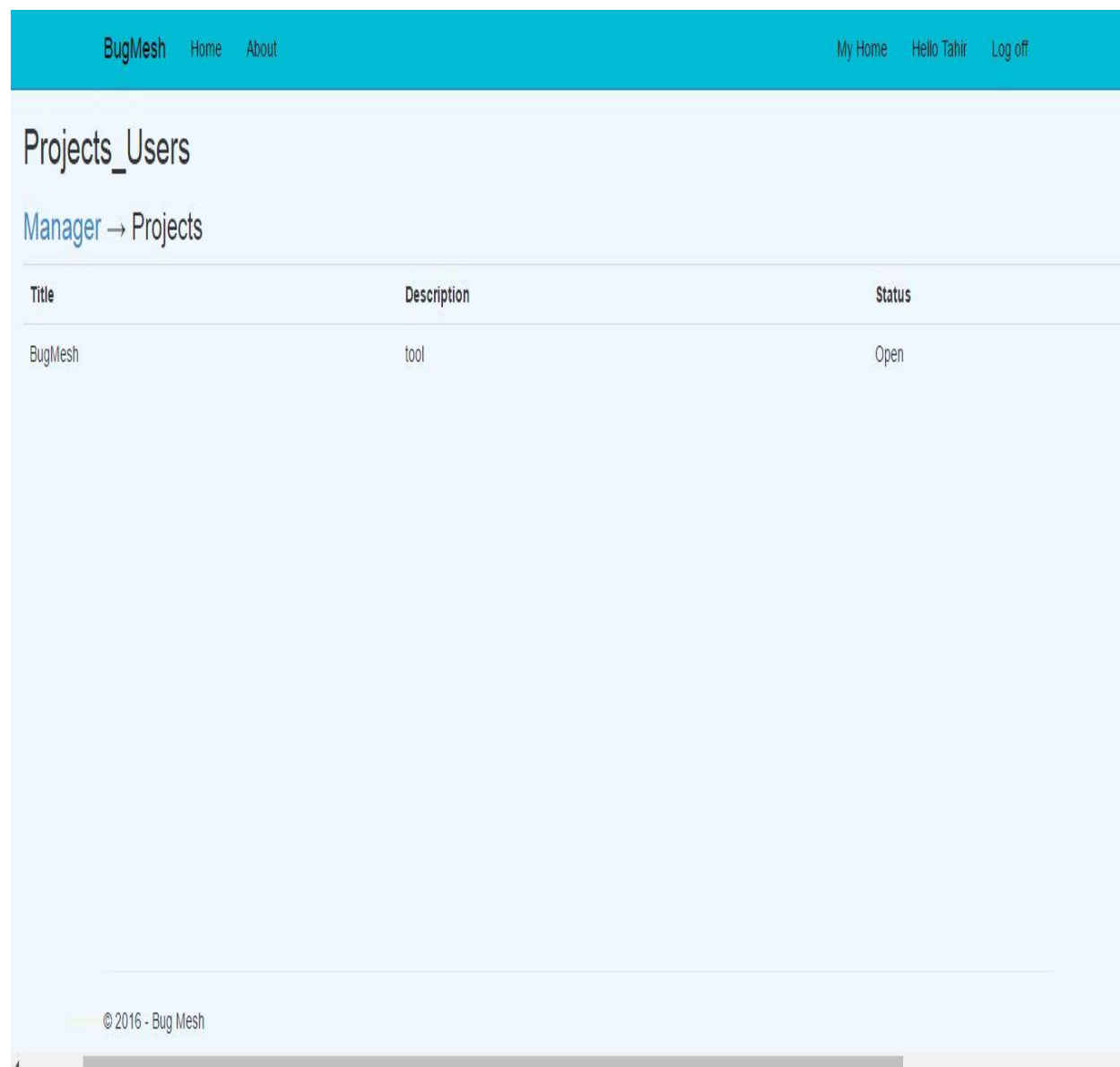
Name	Description	Title
------	-------------	-------

[Back to Projects](#)

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13.13 Users:

Through this page you can demonstrate a tab or catch of client. In this tab all the client are noticeable that are made by you can see the status and alternate traits of the activities and you have a client catch on this page where you can alter, erase and see the points of interest of the considerable number of clients tasks which you are made just the chief have the rights no other client have any rights about alter, subtle elements and erase.



The screenshot displays a web application interface. At the top, there is a teal navigation bar with the text "BugMesh" on the left and "Home About" in the center. On the right side of the bar, there are links for "My Home", "Hello Tahir", and "Log off". Below the navigation bar, the main content area has a light blue background. It features the heading "Projects_Users" and a breadcrumb trail "Manager → Projects". A table with three columns is shown: "Title", "Description", and "Status". The table contains one row with the values "BugMesh", "tool", and "Open". At the bottom left of the content area, there is a copyright notice: "© 2016 - Bug Mesh".

Title	Description	Status
BugMesh	tool	Open

13.13.1

BugMesh Home About My Home Hello Tahir Log off

Users

[Manager](#) → [Projects](#) → Users

[Create New](#)

UserName	FName	LName	Password	Email	Role	
Tahir	Tahir	Tahir	123456	tahir886@gmail.com	Manager	Edit Details Delete

[Back to Projects](#)

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13.14 Bugs:

After clicking on bugs the user able to show all the bugs those he had fixed in past and notification of new bug which he should be fixed in future user can also view the details like title, description, status and creation date. User should be able to see the severity, priority, assign to and fixed bugs and etc.

[BugMesh](#) [Home](#) [About](#) [My Home](#) [Hello Tahir](#) [Log off](#)

Project_Bug

[Manager](#) → [Projects](#)

Title	Description	Status	CreationDate
BugMesh	tool	Open	8/9/2016 12:00:00 AM

© 2016 - Bug Mesh

13.14.1

[BugMesh](#) [Home](#) [About](#) [My Home](#) [Hello Tahir](#) [Log off](#)

Bugs

[Manager](#) → [Projects](#) → [Bugs](#)

Name	Description	Priority	Severity	Status	DueDate	BugNumber	NormalFlow	CreationDate	Title	Assigned To
Back to List										

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13.15 About:

If you want to know who build this application and you need any help to build any other application or want to upgrade this application you can click on **about us** where you have found all the info about our adviser, team leader, developer and tester you can feel free to contact any of them.

BugMesh Home About Register Log in

About BugMesh

Our Team

Arslan Asif (Advisor)
This Project is Completed or designed under the Advisory of the Assistance Professor Arslan Asif.
Email: arslan.asif@umt.edu.pk

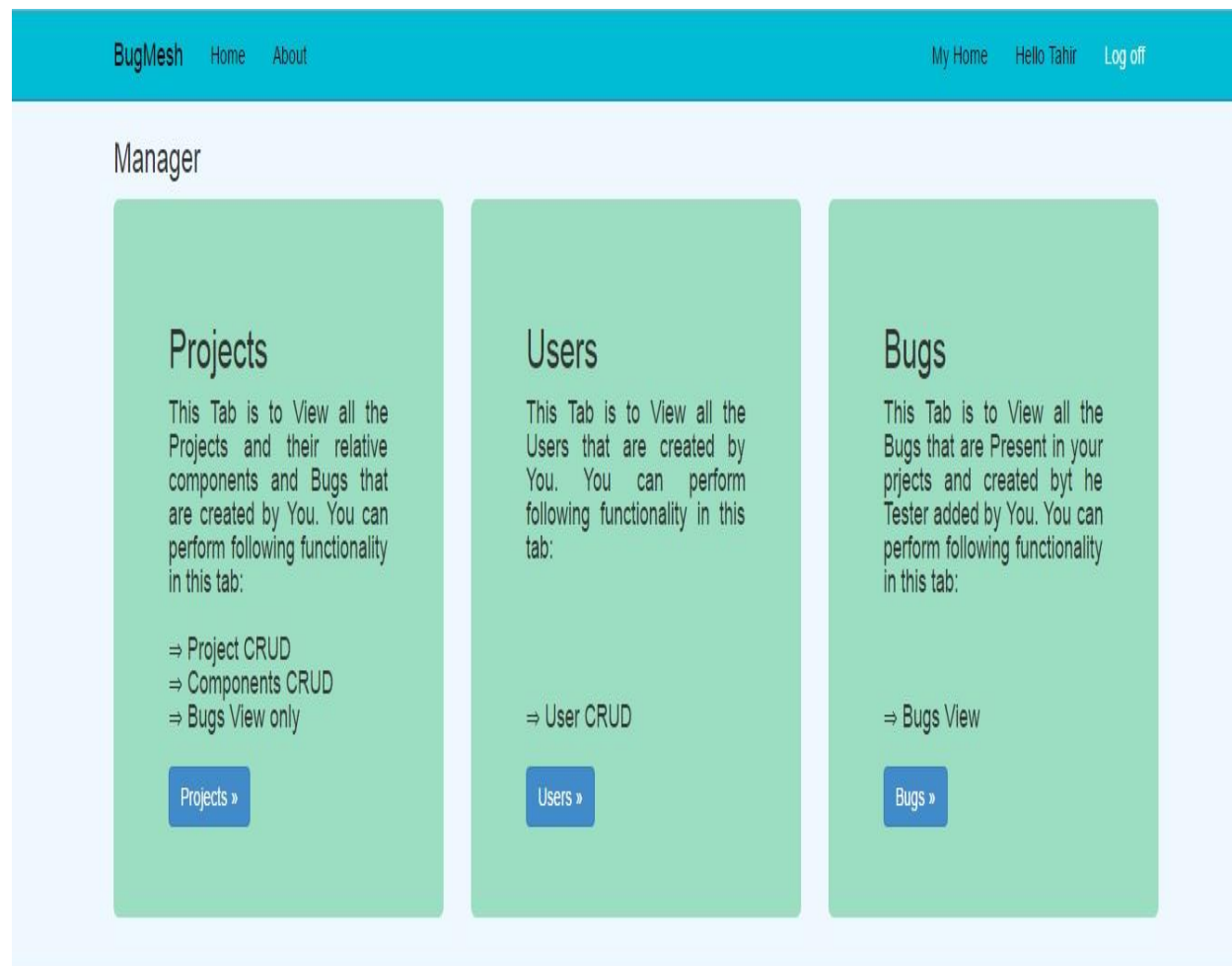
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Tahir Saleem
Cell: 0343 - 47499 85
Email: tahirr886@gmail.com

M.Hassan
Cell: 0315 - 04433 96.
Email: hasanmir777@gmail.com

13.16 Logoff:

Firstly you have to login to our application then you can see on the top of right side off your screen a button of logoff when you press this button you have to logoff form our application.



14. TEST CASE

14.1

Project Name: Bug Mesh
Test Case ID: TC_1
Test Case Name: Login

Test Steps	Test Data	Steps to be executed	Expected Result	Actual Result	Status	Notes
1. Test if user is able to login successfully.	correct username correct password	Enter input(Right) username and password on the respective fields click submit/login	User must successfully login to the home page	Successfully Login	Pass	
2. Test if unregistered users is not able to login to the site	incorrect username incorrect password	Enter input(wrong) username and password on the respective fields click submit/login	Error must be displayed and prompt to enter login again	Not login successfully	Pass	
3. Test with valid username and empty password login must get failed	valid username and empty password	Enter the valid username in the user id and enter no password in the password field	Error must be displayed and prompt to enter login again	Not login successfully	Pass	
4. Test with empty username and valid password login must get failed	Empty username field and valid password	Leave the username empty in the user id and enter a valid user password in the password field	Error must be displayed and prompt to enter login again	Not login successfully	Pass	
5. Test with empty username and empty password and check if login fails		Enter nothing in the mail id and password field click submit button	Error must be displayed and prompt to enter login again	Not login successfully	Pass	

Pre-Condition: Login screen must exist, registered user name and password

14.2

Project Name: Bug Mesh
Test Case ID: TC_2
Test Case Name: Register

Test Steps	Test Data	Expected Result	Actual Result	Status	Notes
1. Enter empty value for First Name		Show error message "Name is required"	Show error message "Firstname is required"	Pass	
2. Enter empty value for Last Name		Show error message "Please enter your Last Name"	Show error message "Last-named is required"	Pass	
3. Empty value for Password and Confirm Password		Show error message "Password is required."	Show error message "Password required."	Pass	
4. Empty value for either Password or Confirm Password		Show error message "Password doesn't match."	Show error message "Password doesn't match."	Pass	
5. Empty value for Email Address		Show error message "Enter your email"	Show error message "Enter your email"	Pass	
6. Enter password less than 8 numbers long	1234567	Show error message "Password length must be eight characters"	Show error message "Password length must be Eight characters"	pass	
7. Fill all fields	Enter all attributes	All fields should be filled	All Fields successfully field	pass	
8. Click on Register button		Show Login page	Login Page Successfully show	pass	

Pre-Condition: registering screen must exist, registered users have a network connection

14.3

Project Name: Bug Mesh
Test Case ID: TC_3
Test Case Name: Logout

Test Steps	Test Data	Expected Result	Actual Result	Status	Notes
1. Click on "Logout Tab"		Make sure login into Home page should display	Home page successfully display with successfully login	Pass	

Pre-Condition: registering screen must exist, registered user have a network connection

14.4

Project Name: Bug Mesh
Test Case ID: TC_4
Test Case Name: About Us

Test Steps	Test Data	Expected Result	Actual Result	Status	Notes
1. Click on About Us	Developers name: Amad, Hasan And Tahir Saleem Supervisor: Arslan Asif	User should be able to know about the developers of this project.	User successfully access about us page and know about the developers of this project	Pass	
2. Back Screen		User should be able to go to the main screen	User is able to go to main screen successfully	Pass	
3. Direct Home Screen		User should be able to go the main home screen directly	User is to able to go to home screen directly	pass	
4. Exit Applicati		User should be able to exit	User is able to exit	pass	

on Directly		the app at any page	application directly		
----------------	--	------------------------	-------------------------	--	--

Pre-Conditions: User must have a network connection. Start the application. Click on about us.

14.5

Project Name: Bug Mesh
Test Case ID: TC_5
Test Case Name: Change Password

Test Steps	Test Data	Expected Result	Actual Result	Status	Notes
1. Enter valid old, new and confirm password	Old password New password Confirm password	Password Successfully changed	Password Successfully changed	Pass	
2. Enter Valid old password and invalid new and confirm password	Old password	Please enter same valid and invalid password	Please enter same valid and invalid password	pass	
3. Invalid old password		Please enter valid password	Please enter valid password	pass	

Pre-Conditions: User must have a network connection. Start the application. Change password should be shown.

14.6

Project Name: Bug Mesh
Test Case ID: TC_6
Test Case Name: Manager Delete User

Test Steps	Test Data	Expected Result	Actual Result	Status	Notes
------------	-----------	-----------------	---------------	--------	-------

1. Manager Login	User name and password	Show Manager page	Successfully proceed to Manager page	Pass	
2. Click on User button		Project button should be worked	Successfully proceed to User page	pass	
3. Click on Users		Delete button should be worked	User Successfully deleted	pass	

Pre-Conditions: User must have a network connection. Start the application. Should have a rights to delete user.

14.7

Project Name: Bug Mesh

Test Case ID: TC_7

Test Case Name: Manager Edit User

Test Steps	Test Data	Expected Result	Actual Result	Status	Notes
1. Manager Login	Manager User name and password	Show Manager page	Successfully proceed Manager page	Pass	
2. Click on User button which want to be edit	Show All users button	All button should be worked	Successfully proceed to home page	pass	
3. Click on Edit button	Show Edit button	Edit button should be worked	Successfully proceed to home page	pass	

Pre-Conditions: User must have a network connection. Start the application. Should have rights of edit user.

14.8

Project Name: Bug Mesh

Test Case ID: TC_8

Test Case Name: Create Project

Test Steps	Test Data	Expected Result	Actual Result	Status	Notes
Manager Login	Manager User name and password	Show Manager home	Successfully proceed to Manager home	Pass	
Click on project button		Show Project page	Successfully proceed to projects page	pass	
Click on create new button		Show Project create page	Successfully Proceed to create project page	pass	
Fill all required fields	Attributes of Projects			pass	
Click on create button		Project created	Project Successfully created	pass	

Pre-Conditions: User must have a network connection. Start the application. You have rights to create projects.

14.9

Project Name: Bug Mesh

Test Case ID: TC_9

Test Case Name: Manager Edit Project

Test Steps	Test Data	Expected Result	Actual Result	Status	Notes
Manager Login	Manager User name and password	Show Manager home	Successfully proceed to Manager home	Pass	
Click on project button		Show Project page	Successfully proceed to projects page	pass	
		Show	Successfully	pass	

Click on Edit button		Project Edit page	Proceed to Edit project page		
Refill required fields				pass	
Click on Save button		Project Edited	Project Successfully Edited	pass	

Pre-Conditions: User must have a network connection. Start the application. Should have a rights to Edit Project.

14.10

Project Name: Bug Mesh

Test Case ID: TC_10

Test Case Name: Manager Delete Project

Test Steps	Test Data	Expected Result	Actual Result	Status	Notes
Manager Login	Manager User name and password	Show Manager home	Successfully proceed to Manager home	Pass	
Click on project button		Show Project page	Successfully proceed to projects page	pass	
Click on Delete button		Show Project Delete page	Successfully Proceed to delete project page	pass	
Again Click on delete button		Project Deleted	Project Successfully deleted	pass	

Pre-Conditions: User must have a network connection. Start the application. You should have a rights to delete projects.

14.11

Project Name: Bug Mesh
Test Case ID: TC_11
Test Case Name: Manager Check Project

Test Steps	Test Data	Expected Result	Actual Result	Status	Notes
Manager Login	Manager User name and password	Show Manager home	Successfully proceed to Manager home	Pass	
Click on project button		Show Project page	Successfully proceed to projects page	pass	
Click on Details button		Show Project detail page	Successfully Proceed to detail project page	pass	

Pre-Conditions: User must have a network connection. Start the application. You should have the rights to check projects.

14.12

Project Name: Bug Mesh
Test Case ID: TC_12
Test Case Name: Manager Create Components

Test Steps	Test Data	Expected Result	Actual Result	Status	Notes
1. Manager Login page	Manager User name and password	Show Manager home	Successfully proceed Manager home	Pass	
Click on Projects button		Users button should be Worked	Successfully proceed to Projects page	pass	
Select project		Project should be selected	Project Successfully selected	pass	
Click on components		Components button	Components button	pass	

button		should be worked	successfully worked		
Click on Create new button		Create new Button should be worked	Create new Button successfully worked	pass	
Fill all required fields	Enter all attributes			pass	
Click on create button		Component should be created	Component successfully created	pass	

Pre-Conditions: User must have a network connection. Start the application. You should have a rights to create projects.

14.13

Project Name: Bug Mesh

Test Case ID: TC_13

Test Case Name: Manager Edit Components

Test Steps	Test Data	Expected Result	Actual Result	Status	Notes
1. Manager Login page	Manager User name and password	Show Manager home	Successfully proceed Manager home	Pass	
Click on Projects button		Users button should be Worked	Successfully proceed to Projects page	pass	
Click on Components button		Show all Components	Components Successfully show	pass	
Click on Edit button		Components Edit page successfully show	Components Edit page successfully Show	pass	
Refill		Text area	Text area	pass	

required fields		should be edit able	successfully Edit able		
Click on Save button		Component should be Edited	Component successfully Edited	pass	

Pre-Conditions: User must have a network connection. Start the application. You should have rights to edit components.

14.14

Project Name: Bug Mesh
Test Case ID: TC_14
Test Case Name: Manager Delete Components

Test Steps	Test Data	Expected Result	Actual Result	Status	Notes
1. Manager Login page	Manager User name and password	Show Manager home	Successfully proceed Manager home	Pass	
Click on Projects button		Users button should be Worked	Successfully proceed to Projects page	pass	
Click on Components button		Show all Components	Components Successfully show	pass	
Click on Delete button		Components delete page show	Components delete page successfully Show	pass	
Click on Delete button		Component should be Deleted	Component successfully Deleted	pass	

Pre-Conditions: User must have a network connection. Start the application. You should have a rights to delete components.

14.15

Project Name: Bug Mesh
Test Case ID: TC_15
Test Case Name: Manager see Components Details

Test Steps	Test Data	Expected Result	Actual Result	Status	Notes
1. Manager Login page	Manager User name and password	Show Manager home	Successfully proceed Manager home	Pass	
Click on Projects button		Users button should be Worked	Successfully proceed to Projects page	pass	
Click on Components button		Show all Components	Components Successfully show	pass	
Click on Details button		Components details page show	Components details page successfully Show	pass	

Pre-Conditions: User must have a network connection. Start the application. You should have rights to delete components .

14.16

Project Name: Bug Mesh
Test Case ID: TC_16
Test Case Name: Manager Create User

Test Steps	Test Data	Expected Result	Actual Result	Status	Notes
1. Manager Login page	Manager User name and password	Show Manager home	Successfully proceed Manager home	Pass	
Click on users button	Show users button	Users button should be	Successfully proceed to	pass	

		Worked	Projects page		
Select project		Project should be selected	Project Successfully selected	pass	
Click on users button					
Click on create new button	Fill all Attributes of user				
Click on Create Button		User Should be created	User Successfully Created	pass	

Pre-Conditions: User must have a network connection. Start the application. You should have rights to create users .

14.17

Project Name: Bug Mesh

Test Case ID: TC_17

Test Case Name: Manager Delete User

Test Steps	Test Data	Expected Result	Actual Result	Status	Notes
1. Manager Login page	Manager User name and password	Show Manager home	Successfully proceed Manager home	Pass	
Click on users button		Users button should be Worked	Successfully proceed to Projects page	pass	
Select project		Project should be selected	Project Successfully selected	pass	
Click on users button		Show all users page	Users page Successfully Show		
Click on Delete button		Show Delete user page	Users delete page Successfully	pass	

			Show		
Click on Delete Button		User Should be Deleted	User Successfully deleted	pass	

Pre-Conditions: User must have a network connection. Start the application. You should have rights to delete the users.

14.18

Project Name: Bug Mesh
Test Case ID: TC_18
Test Case Name: Manager Edit User

Test Steps	Test Data	Expected Result	Actual Result	Status	Notes
1. Manager Login page	Manager User name and password	Show Manager home	Successfully proceed Manager home	Pass	
Click on users button	Show users button	Users button should be Worked	Successfully proceed to Projects page	pass	
Select project		Project should be selected	Project Successfully selected	pass	
Click on users button		Show all users page	Users page Successfully Show		
Click on Delete button		Show Delete user page	Users delete page Successfully Show	pass	
Click on Delete Button		User Should be Deleted	User Successfully deleted	pass	

Pre-Conditions: User must have a network connection. Start the application. You should have rights to edit users.

14.19

Project Name: Bug Mesh
Test Case ID: TC_19
Test Case Name: Manager See User Details

Test Steps	Test Data	Expected Result	Actual Result	Status	Notes
1. Manager Login	Manager User name and password	Show Manager home	Successfully proceed Manager home	Pass	
Click on users button	Show users button	Users button should be Worked	Successfully proceed to Projects page	pass	
Select project		Project should be selected	Project Successfully selected	pass	
Click on users button		Show all users page	Users page Successfully Show	pass	
Click on Details button		Show Details user page	Users details page Successfully Show	pass	

Pre-Conditions: User must have a network connection. Start the application. You should login as a manager.

14.20

Project Name: Bug Mesh
Test Case ID: TC_20
Test Case Name: Manager See Bugs

Test Steps	Test Data	Expected Result	Actual Result	Status	Notes
1. Manager Login page	Manager User name and password	Show Manager home	Successfully proceed Manager home	Pass	
Click on Bugs button		Users button should be	Successfully proceed to	pass	

		Worked	Projects page		
Select project		Project should be selected	Project Successfully selected	pass	
Click on bugs button		Bugs page should be open	Bugs page open	Pass	

Pre-Conditions: User must have a network connection. Start the application. You should have login as a manager.

14.21

Project Name: Bug Mesh
Test Case ID: TC_21
Test Case Name: Developer View bugs

Test Steps	Test Data	Expected Result	Actual Result	Status	Notes
1. Developer Login page	Developer User name and password	Show Developer page	Successfully proceed Developer page	Pass	
2. Open projects	Open project button should be worked	Projects should be open	Successfully project open	pass	
3. Open Bugs	Delete button should be worked	Delete User	User Successfully Deleted	pass	

Pre-Conditions: User must have a network connection. Start the application. You should have rights to view bugs.

14.22

Project Name: Bug Mesh
Test Case ID: TC_22
Test Case Name: Manager View Bugs

Test Steps	Test Data	Expected	Actual Result	Status	Notes
------------	-----------	----------	---------------	--------	-------

		Result			
1. Manager Login page	Manager User name and password	Show Manager home	Successfully proceed Manager home	Pass	
Click on Bugs button		Show bugs page	Successfully proceed to Bugs page	pass	
Again Click on bugs button		Show Bugs	Bugs Successfully Show	pass	

Pre-Conditions: User must have a network connection. Start the application. You Should have login as a manager to see bugs.

14.23

Project Name: Bug Mesh

Test Case ID: TC_23

Test Case Name: Tester View Bugs

Test Steps	Test Data	Expected Result	Actual Result	Status	Notes
1. Tester Login page	Tester User name and password	Show Tester page	Successfully proceed Tester page	Pass	
2. Click on projects Button		Show all projects	Successfully projects show	pass	
3. Click on Components		Show components page	Components page Successfully show	pass	
4. Click on bugs		Show bugs page	Bugs page successfully show	pass	

Pre-Conditions: User must have a network connection. Start the application. You should have rights to view bugs.

14.24

Project Name: Bug Mesh
Test Case ID: TC_24
Test Case Name: Tester Create new Bugs

Test Steps	Test Data	Expected Result	Actual Result	Status	Notes
1. Tester Login	Tester User name and password	Show Tester page	Successfully proceed Tester page	Pass	
2. Click on projects Button		Show all projects	Successfully projects show	pass	
3. Click on Components		Show components page	Components page Successfully show	pass	
4. Click on bugs		Show bugs page	Bugs page successfully show	pass	
5. Click on Create new		Create bug page show	successfully Create bug page show	pass	
6. Fill all required fields		Show all fields and text fields should be worked	Successfully worked	pass	
7. Click on create button		Show created bug	Successfully show created bug	pass	

Pre-Conditions: User must have a network connection. Start the application. You should have rights to view new bugs.

14.25

Project Name: Bug Mesh
Test Case ID: TC_25
Test Case Name: Tester Edit Bugs

Test Steps	Test Data	Expected Result	Actual Result	Status	Notes
------------	-----------	-----------------	---------------	--------	-------

1. Tester Login	Tester User name and password	Show Tester page	Successfully proceed Tester page	Pass	
2. Click on projects Button		Show all projects	Successfully projects show	pass	
3. Click on Components		Show components page	Components page Successfully show	pass	
4. Click on bugs		Show bugs page	Bugs page successfully show	pass	
5. Click on Edit button		Show Edit Page and all text fields	Successfully Show Edit Page and all text fields	pass	
6. Refill text fields		Text fields should be Editable	Successfully Text fields Edited	pass	
7. Click on save button		Show update bug page	Successfully updated bug page	pass	

Pre-Conditions: User must have a network connection. Start the application. You should have rights to edit bugs.

14.26

Project Name: Bug Mesh

Test Case ID: TC_26

Test Case Name: Tester See Details Bugs

Test Steps	Test Data	Expected Result	Actual Result	Status	Notes
1. Tester Login	Tester User name and password	Show Tester page	Successfully proceed Tester page	Pass	
2. Click on projects Button		Show all projects	Successfully projects show	pass	
3. Click on Components		Show components	Components page	pass	

		page	Successfully show		
4. Click on bugs		Show bugs page	Bugs page successfully show	pass	
5. Click on Details button		Show Details page	Successfully Show details page	pass	

Pre-Conditions: User must have a network connection. Start the application. You should have rights to see detail of bugs.

14.27

Project Name: Bug Mesh

Test Case ID: TC_27

Test Case Name: Tester Delete Bugs

Test Steps	Test Data	Expected Result	Actual Result	Status	Notes
1. Tester Login	Tester User name and password	Show Tester page	Successfully proceed Tester page	Pass	
2. Click on projects Button		Show all projects	Successfully projects show	pass	
3. Click on Components		Show components page	Components page Successfully show	pass	
4. Click on bugs		Show bugs page	Bugs page successfully show	pass	
5. Click on Delete button		Show Delete page	Successfully Show delete page	pass	
6. Again Click on Delete button		Bug should be deleted	Bug Successfully deleted	pass	

Pre-Conditions: User must have a network connection. Start the application. You should have rights to delete bugs.

14.28

Project Name: Bug Mesh
Test Case ID: TC_28
Test Case Name: Tester View Components

Test Steps	Test Data	Expected Result	Actual Result	Status	Notes
1. Tester Login	Tester User name and password	Show Tester page	Successfully proceed Tester page	Pass	
2. Click on projects Button		Show all projects	Successfully projects show	pass	
3. Click on Components		Show components page	Components page Successfully show	pass	

Pre-Conditions: User must have a network connection. Start the application. You should have rights to view components.

14.29

Project Name: Bug Mesh
Test Case ID: TC_29
Test Case Name: Admin View all projects

Test Steps	Test Data	Expected Result	Actual Result	Status	Notes
1. Admin Login	Admin User name and password	Show Tester page	Successfully proceed Tester page	Pass	
2. Click on projects Button		Show all projects	Successfully projects show	pass	

Pre-Conditions: User must have a network connection. Start the application. You should have login as admin.

14.30

Project Name: Bug Mesh
Test Case ID: TC_30
Test Case Name: Admin View all users

Test Steps	Test Data	Expected Result	Actual Result	Status	Notes
1. Admin Login	Admin User name and password	Show Tester page	Successfully proceed Tester page	Pass	
2. Click on users Button		Show all projects	Successfully projects show	pass	

Pre-Conditions: User must have a network connection. Start the application. You should have login as an admin.

14.31

Project Name: Bug Mesh
Test Case ID: TC_31
Test Case Name: Admin Delete all projects

Test Steps	Test Data	Expected Result	Actual Result	Status	Notes
1. Admin Login	Admin User name and password	Show Tester page	Successfully proceed Tester page	Pass	
2. Click on projects Button		Show all projects	Successfully projects show	pass	
3. Select check box		Check box selected	Check box successfully checked	Pass	
4. Click on Delete button		Select project deleted	Project successfully deleted	pass	

Pre-Conditions: User must have a network connection. Start the application. You should have login as an admin.

14.32

Project Name: Bug Mesh
Test Case ID: TC_32
Test Case Name: Admin Delete all Users

Test Steps	Test Data	Expected Result	Actual Result	Status	Notes
1. Admin Login	Admin User name and password	Show Tester page	Successfully proceed Tester page	Pass	
2. Click on Users button		Show all Users	Successfully Users show	pass	
3. Select check box		Check box selected	Check box successfully checked	Pass	
4. Click on Delete button		Select User deleted	Users successfully deleted	pass	

Pre-Conditions: User must have a network connection. Start the application. You should have login as an admin.

15. BUG REPORTS

Bugs	Status
1. When user enter more than 450 words in description application crushed. Because we provide maximum length size is 450.	Fixed
2. Assigned to and submitted by names in mangers page are not assigned correctly.	Fixed
3. Assign date problem user can assigned pervious date add a calendar where the user can assign current or future date but if user try to assign past date it should automatically assigned it current date	Fixed
4. When user logoff this application then it couldn't return to the home page.	Fixed
5. It could not show error when user left any field blank during registering	Fixed
6. User name not display when login	Fixed

16. RESULTS

16.1 Completeness:

We have completed our project **100%**. We meet all our functional requirements.

16.2 Accuracy:

Our Project is working **100%** accurate. It fulfills all our functional requirements.

16.3 Correctness:

As it completes all our functional requirements. So its correctness lie between **100%**.

17. FUTURE WORK

Our future plan of work is to add interactive features for adding bugs. Like we will give tester the ability of taking picture of a bug and send it to developer for comprehension. We will also add a feature of sharing small video of flow which is generating bugs.

Another aspect will be communication of all stakeholders through email. A notification of assigning bug, resolving bug will be notified through email to concerned users.

A statistical feature will be added which will categorize bugs produced by different developers and generate a report for whole project.

18. APPENDIX

18.1 Glossary of Terms:

BugMesh

18.2 Assumptions:

- The application will communicate with the users. Users have the option of choose an interface within another interface.
- User will be facilitated by all the information about bugs.

18.3 Pre-Requisite:

You should have knowledge about bugs and testing methods before developing this application.

18.4 Test Data:

- Home page
- Login
- Logoff
- Registration
- About us
- Save
- Create new
- Delete
- Update
- Details
- Components
- Bugs
- Users

19. REFERENCES

- <http://stackoverflow.com/>
- <http://bug-tracker.com/>
- <https://www.atlassian.com/software/jira>
- <https://www.bugzilla.org/>