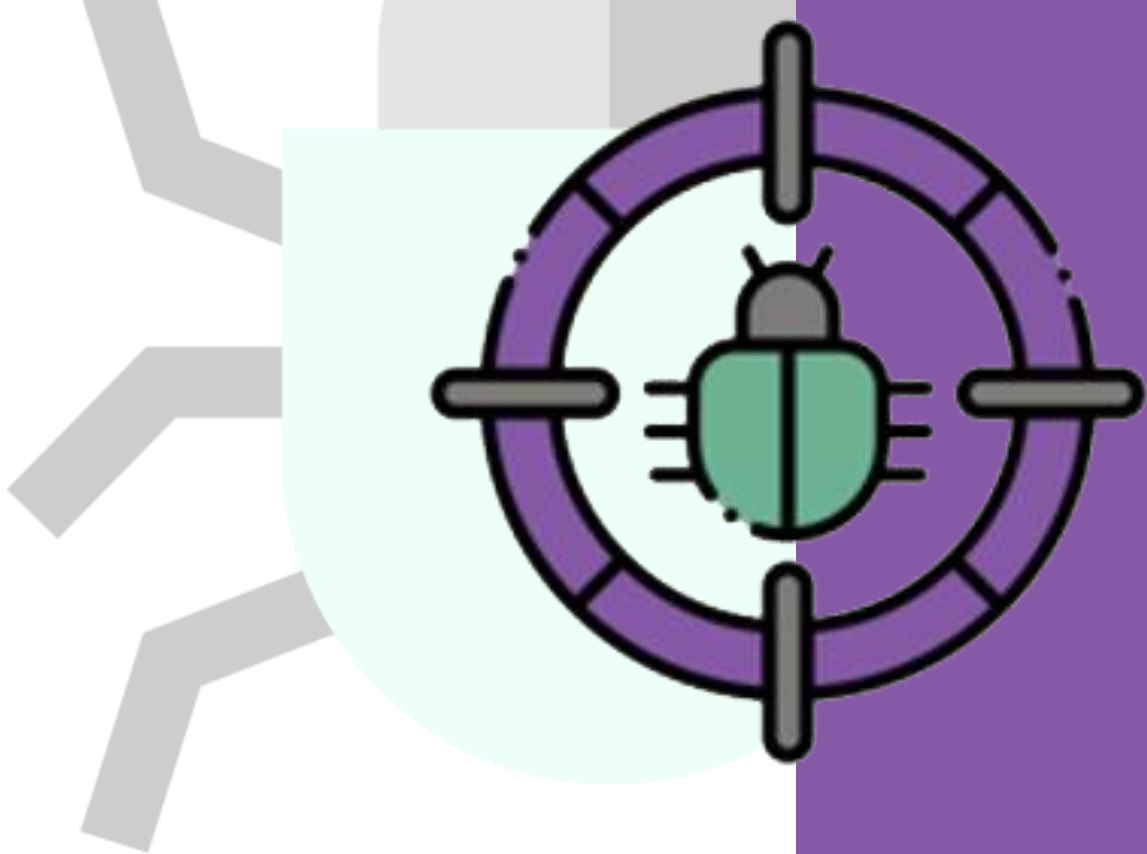


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Requirement document of Bug Tracking System



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1. formal description-Bug Tracking System:

1.1. Proposed system:

- purpose of the software is to track bugs and allow the end user to manage bugs and store them if they ever appear in other projects.

2. Requirements document for Bug Tracking system:

2.1 Stakeholders:

- End users: Administrator, Developer, Tester.
- Procurer: Software company owner.

2.2 Context diagram:

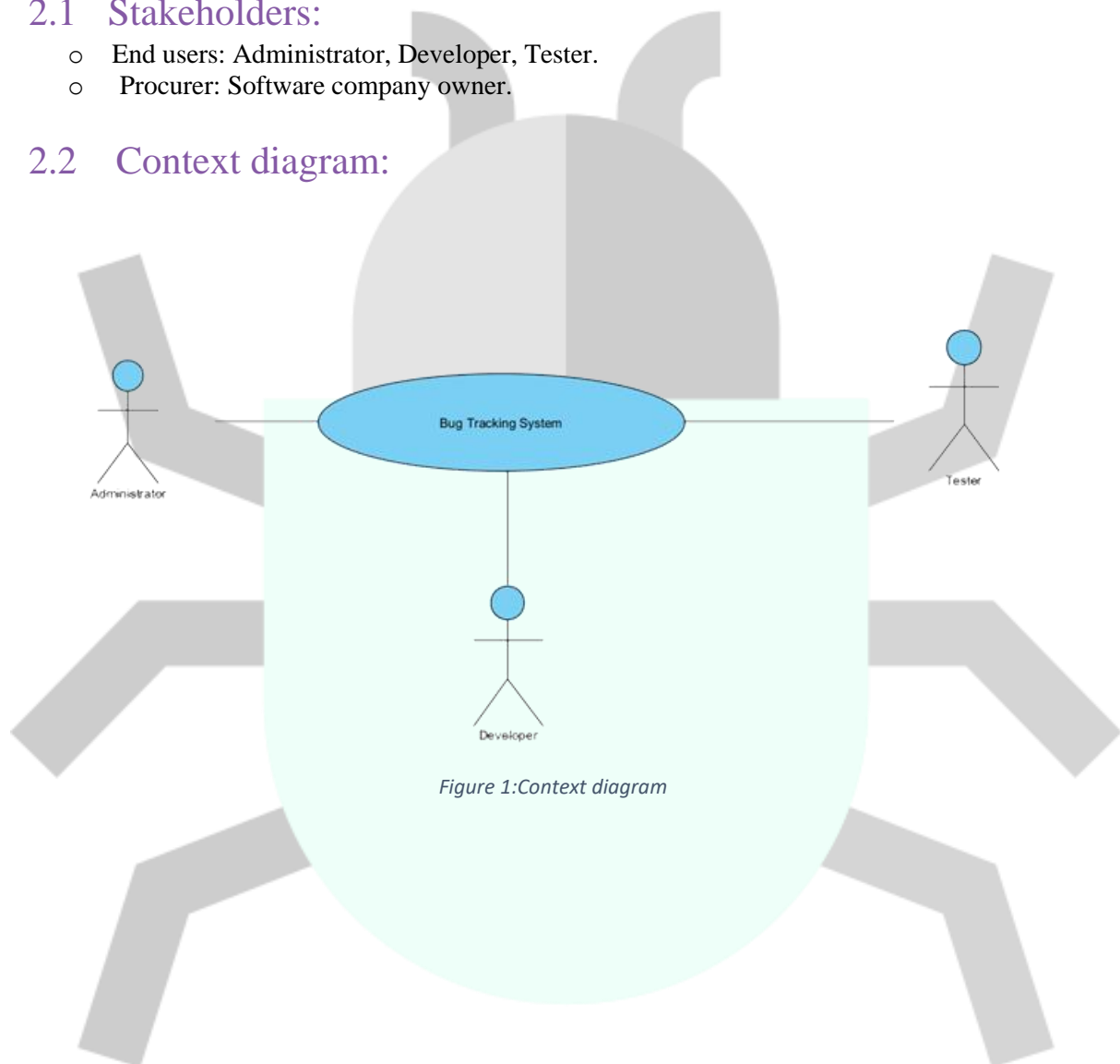


Figure 1:Context diagram

2.3. Interfaces:

Actor	Physical interface	Logical interface
Administrator	PC	<ul style="list-style-type: none"> • GUI: <ul style="list-style-type: none"> ○ Introduction Page. ○ Login Page. ○ Activities Tab (Shows User Activities and Failed Login Attempts tables). ○ Users Tab (Shows Users Table and allows adding, updating, and deleting users). ○ Projects Tab (Shows Projects Table and allows creating, editing, and deleting projects, as well as assigning users to projects). ○ Bugs Tab (Shows Bugs Table, allows adding bug type and severity, and assigning bugs to developers).
Developer	PC	<ul style="list-style-type: none"> • GUI: <ul style="list-style-type: none"> ○ welcome screen. ○ login screen. ○ Projects screen (shows the table of projects assignment to you and the developers also assigned to the same projects). ○ Bugs screen (show table of bugs assigned to you – update bug status). ○ Dashboard screen (current projects that you are assigned on it – current bugs that are assigned to you).
Tester	PC	<ul style="list-style-type: none"> • GUI: <ul style="list-style-type: none"> ○ Welcome screen. ○ Login screen. ○ Projects screen (Show table of current projects – Search on these projects). ○ Project details screen (Show the testers and developers on the same project). ○ Bugs screen (show table of bugs in a specific project – Edit bug information). ○ Dashboard screen (current projects that you are assigned on it – current bugs that are assigned to you).

3. List of requirements:

Symbol	Description
F1	User logs in.
F2	User requests password reset.
F3	User logs out.
F4	User rates the application.
F5	Administrator views user activity.
F6	Administrator searches through user activities.
F7	Administrator views failed login attempts.
F8	Administrator searches through failed login attempts.
F9	Administrator views users in the system.
F10	Administrator searches through users.
F11	Administrator adds new user.
F12	Administrator edits user information.
F13	Administrator deletes selected user.
F14	Administrator deletes all users in the system.
F15	Administrator views projects in the system.
F16	Administrator searches through projects.
F17	Administrator adds a new project.
F18	Administrator assigns users to project.
F19	Administrator edits project information.
F20	Administrator deletes project.
F21	Administrator views bugs in the system.
F22	Administrator searches through bugs.
F23	Administrator adds bug type and severity.
F24	Administrator assigns bug to developer.
F25	Administrator views ratings.
F26	Administrator rates the software.
F27	Developer views the list of assigned Bugs.
F28	Developer views information of specific bug.

F29	Developer searches through bugs.
F30	Developer change status of specific bug (from in progress until to be tested).
F31	Developer Views assigned projects.
F32	Developer searches through the list of assigned projects.
F33	Developer changes his/her password.
F34	Testers views assigned bugs that needed to be tested.
F35	Testers searches through assigned bugs that needed to be tested.
F36	Testers views assigned projects.
F37	Testers searches through assigned projects.
F38	Testers views users of a specific project.
F39	Testers views bugs of a specific project.
F40	Testers views information bugs of a specific project.
F41	Testers searches through bugs of a specific project.
F42	Testers can report bug.
F43	Testers can update bug details.
F44	Testers can update bug status (from to be tested into closed).
F45	Testers can delete bug.
F46	Testers can view a pie chart of bugs status in specific project.
NF1 (Efficiency)	Each function should be completed in 0.5 sec.
NF2 (Reliability)	No more than 10 errors in the year.
NF3 (Security)	The Login Page doesn't have access for more than 5 times.
NF4 (Availability)	The system is available during working times.
NF5 (Usability)	The system is easy to use, and the modules are so simple.

4. Use case diagram:

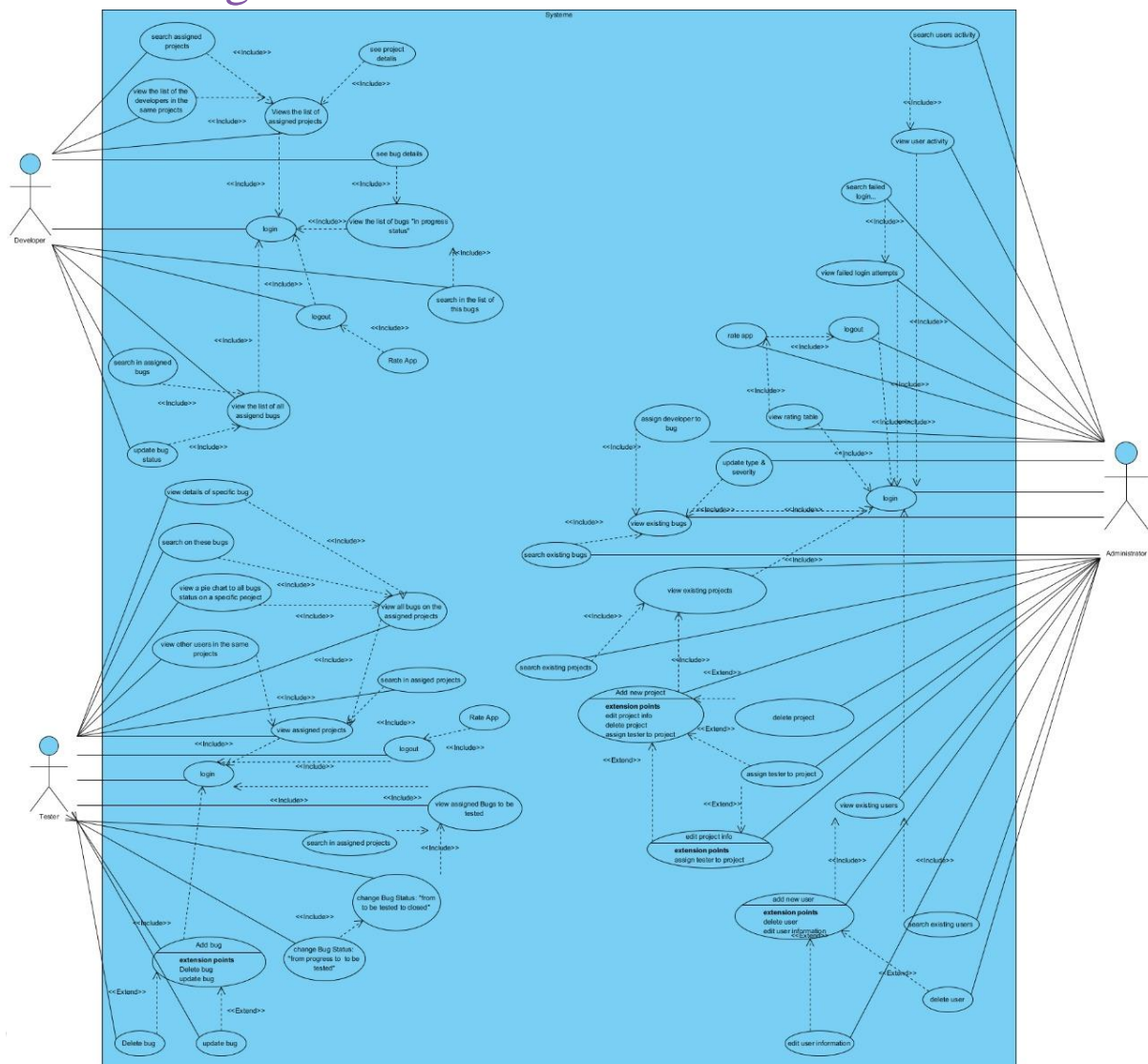


Figure 2 : Use case diagram

5. Scenarios (stories)

Scenario 1: User logs in

Step	Description	Requirement ID
1	User inputs credentials	---
2	User presses Login button	F1

Scenario 1.1: User requests password reset

Step	Description	Requirement ID
1	User clicks Forgot Password button	F2
2	User enters his/her username	---

Scenario 1.2: User rates the software

Step	Description	Requirement ID
1	User clicks Logout Button	F3
2	User chooses rating	F4

Scenario 2: Administrator adds a new user

Step	Description	Requirement ID
1	Administrator logs in	F1
2	Administrator views users table	F9
3	Administrator clicks Add User button	F11

Scenario 2.1: Administrator edits user information

Step	Description	Requirement ID
1	Administrator logs in	F1
2	Administrator views users table	F9
3	Administrator clicks on a user from the user table and edits the displayed fields	F12

Scenario 2.2: Administrator deletes a user

Step	Description	Requirement ID
1	Administrator logs in	F1
2	Administrator views users table	F9
3	Administrator clicks on a user from the user table and clicks Delete button	F13

Scenario 2.3: Administrator deletes all users

Step	Description	Requirement ID
1	Administrator logs in	F1
2	Administrator views users table	F9
3	Administrator clicks Delete All button	F14

Scenario 2.4: Administrator searches through users

Step	Description	Requirement ID
1	Administrator logs in	F1
2	Administrator views users table	F9
3	Administrator types the criteria in the search bar	F10

Scenario 3: Administrator adds a new project and assigns users

Step	Description	Requirement ID
1	Administrator logs in	F1
2	Administrator views projects table	F15
3	Administrator clicks Add Project button and fills the fields	F17
4	Administrator inputs user IDs to assign users to the project	F18

Scenario 3.1: Administrator edits project information

Step	Description	Requirement ID
1	Administrator logs in	F1
2	Administrator views projects table	F15
3	Administrator clicks a project from the table and fills the fields or removes previously assigned users	F19
4	Administrator inputs user IDs to assign users to the project	F18

Scenario 3.2: Administrator deletes a project

Step	Description	Requirement ID
1	Administrator logs in	F1
2	Administrator views projects table	F15
3	Administrator clicks a project from the table and clicks Delete Button	F20

Scenario 3.3: Administrator searches through projects

Step	Description	Requirement ID
1	Administrator logs in	F1

2	Administrator views projects table	F15
3	Administrator types the criteria in the search bar	F16

Scenario 4: Administrator updates bug type and severity, and assigns developer to bug

Step	Description	Requirement ID
1	Administrator logs in	F1
2	Administrator views bugs table	F21
3	Administrator clicks on a bug and adds developer ID and chooses the type and severity	F23

Scenario 4.1: Administrator searches through bugs

Step	Description	Requirement ID
1	Administrator logs in	F1
2	Administrator views bugs table	F21
3	Administrator types the criteria in the search bar	F22

Scenario 5: Administrator views rating table

Step	Description	Requirement ID
1	Administrator logs in	F1
2	Administrator clicks Rating Table Button	F25

Scenario 6: Tester views assigned bugs that needed to be tested

Step	Description	Requirement ID
1	Tester logs in	F1
2	Tester views assigned bugs that needed to be tested	F34

Scenario 6.1: Tester searches through assigned bugs

Step	Description	Requirement ID
1	Tester logs in	F1
2	Tester views assigned bugs table	F34

3	Tester types the criteria in the search bar	F35
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Scenario 6.2: Testers can update a specific bug status

Step	Description	Requirement ID
1	Tester logs in	F1
2	Tester views assigned bugs table	F34
3	Tester types the criteria in the search bar	F35
4	Tester updates a specific bug status (from to be tested into closed).	F44

Scenario 7: Tester views assigned projects

Step	Description	Requirement ID
1	Tester logs in	F1
2	Tester views assigned projects	F36

Scenario 7.1: Tester searches through assigned projects

Step	Description	Requirement ID
1	Tester logs in	F1
2	Tester views assigned projects	F36
3	Tester types the criteria in the search bar	F37

Scenario 7.2: Tester views assigned users in specific projects

Step	Description	Requirement ID
1	Tester logs in	F1
2	Tester views assigned projects	F36
3	Tester searches for a specific project	F37
4	Testers views assigned users	F38

Scenario 8: Tester views bugs in specific projects

Step	Description	Requirement ID
1	Tester logs in	F1
2	Tester views assigned projects	F36
3	Tester searches for a specific project	F37
4	Testers views bugs of specific project	F39

Scenario 8.1: Tester searches through bugs in specific projects

Step	Description	Requirement ID
1	Tester logs in	F1
2	Tester views assigned projects	F36
3	Tester searches for a specific project	F37
4	Testers views bugs of specific project	F39
5	Tester types the criteria in the search bar	F41

Scenario 8.2: Tester views information of specific bug in specific project

Step	Description	Requirement ID
1	Tester logs in	F1
2	Tester views assigned projects	F36
3	Tester searches for a specific project	F37
4	Testers views bugs of specific project	F39
5	Tester searches for a specific bug	F41
6	Tester views information of specific bug	F40

Scenario 8.3: Tester reports new bug

Step	Description	Requirement ID
1	Tester logs in	F1
2	Tester views assigned projects	F36
3	Tester searches for a specific project	F37
4	Testers views bugs of specific project	F39
5	Tester reports new bug	F42

Scenario 8.4: Tester updates bug details

Step	Description	Requirement ID
1	Tester logs in	F1
2	Tester views assigned projects	F36
3	Tester searches for a specific project	F37
4	Testers views bugs of specific project	F39
5	Tester searches for a specific bug	F41
6	Tester views information of specific bug	F40

7	Tester updates bug details (description, Type, severity).	F43
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Scenario 8.5: Tester deletes a specific bug

Step	Description	Requirement ID
1	Tester logs in	F1
2	Tester views assigned projects	F36
3	Tester searches for a specific project	F37
4	Testers views bugs of specific project	F39
5	Tester searches for a specific bug	F41
6	Tester views information of specific bug	F40
7	Tester deletes bug	F45

Scenario 8.6: Tester views pie chart of bugs status in specific project

Step	Description	Requirement ID
1	Tester logs in	F1
2	Tester views assigned projects	F36
3	Tester searches for a specific project	F37
4	Testers views bugs of specific project	F39
5	Tester views pie chart	F46

Scenario 9: Developers view assigned bugs that is in progress

Step	Description	Requirement ID
1	Developer logs in	F1
2	Developer views assigned bugs that needed to be tested	F27

Scenario 9.1: Developers search through bugs

Step	Description	Requirement ID
1	Developer logs in	F1
2	Developer views assigned bugs table	F27
3	Developer types the criteria in the search bar	F29

Scenario 9.2: Developers view information of a specific bug

Step	Description	Requirement ID
1	Developer logs in	F1
2	Developer views assigned bugs table	F27
3	Developer searches for specific bug	F29
4	Developer views information of a specific bug	F28

Scenario 9.3: Developers can update a specific bug status

Step	Description	Requirement ID
1	Developer logs in	F1
2	Developer views assigned bugs table	F27
3	Developer searches for specific bug	F29
4	Developer updates a specific bug status (from in progress into to be tested).	F30

Scenario 10: Developers view assigned projects

Step	Description	Requirement ID
1	Developer logs in	F1
2	Developer views assigned projects	F31

Scenario 10.1: Developers search through assigned projects

Step	Description	Requirement ID
1	Developer logs in	F1
2	Developer views assigned projects	F31
3	Developer types the criteria in the search bar	F32

Scenario 11: Developers reset password & view their information

Step	Description	Requirement ID
1	Developer logs in	F1
2	Developer resets password & views their information	F33

