**Bug Tracking System**

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INTRODUCTION

**Problem Statement:**

To create a bug tracking system for the software production. The application can be made either as Web Application, Mobile Application or Desktop Application

**Description:**

This project is aimed at developing the bug tracking system .Here an employee raises the ticket and then assignes the resposible person for debugging the code snippets assigned to that particular task .Once the bugs are solved then the employee must be able to close the ticket.

**Required Features:**

* Employee should be able to login through the app.
* System should have details about the project and dashboard showing current bugs.
* Employees should be able to raise ticket for the bug.
* Provide critical levels for bugs (low, medium, high, severe).
* Employee should be able to add note to the ticket.
* Employee should be able to paste code snippets.
* Employee should be able to highlight important words in note using # tag.
* Employee should be able to tag responsible person for bug fix using @ tag.
* When @ is typed then list of employees should be displayed and should be able to select the responsible employee.
* When using # and @ the text color should be changed so it can be highlighted.
* When @ is used and ticket is raised then the responsible employee should be notified.
* Once bug is solved employee should be able to close the ticket.
* Create a good UI for good user experience.
* Plan a good architecture pattern for the project.
* Provide security for project.

**Scope :**

**Out of Scope:**

**TechStack Used:**

* Java 8
* Angular 6
* Maven –v3.6.2
* Spring Boot 2.x
* SpringREST
* Spring Data JPA
* Postman
* MySql
* JUnit 5/Mockito
* Sonarqube

**Functional Components Used:**

**Manager :**

Manager can raise the ticket and assign a developer for solving the bug.Manager can paste the code snipets,add note to the ticket Once the bug is solved by the developer then the manager must be able to cancel the ticket.

**Developer** :

Developer gets notified about the ticket raised by the manager.Developer solves the bugs and he must send the code snippet to the manager.

**CLASSES AND METHODS :**

The Bug tracking system consists of following classes and methods

**Ticket Class :**

Attributes :

* ticketId: BigInteger
* ticketNote : String
* assignedTo : Employee //Refer below
* assignedBy : Employee //Refer below
* ticketStatus : String
* codeSnippet : String
* ticketCriticalLevel : CriticalLevel //Refer below
* ticketDeadline : LocalDateTime

**Employee Class** :

Attributes :

* employeeId : BigInteger
* employeeName : String
* employeeRole : String
* loginname : String
* userPassword : String
* emailId : String
* phoneNumber : String

**Manager Class : extends Employee**

Attributes :

* project : Project
* developers : List<Developer>

**Developer Class : extends Employee**

Attributes :

* ticketAssigned : Ticket
* manager: Manager
* assignStatus : Boolean

**Project Class :**

Attributes :

* projectId : int
* projectName : String
* projectCost : Double
* projectEndDate : LocalDate
* manager : Manager
* tickets : List<Ticket>

**CriticalLevel : Enumeration**

Values :

* low
* medium
* high
* severe

**Service Layer Methods :**