Bug Tracker

Introduction

Purpose

The purpose of this document is to build an online system to manage and monitor issues or bugs in a company environment.

Intended audience

This project is a prototype for the bug tracker. Project can be useful in a development team environment in which users can track issues that rise up during the development process.

Project scope

Companies need an easy way for their employees to submit their issues. Bug Tracker will solve this problem with the use of a relational database with issue submission and tracking functions in a user friendly and easy to use environment.

Overall description

Functionality

- All users should be able to sign in to the system with account created for them be a moderator
- Every user account should contain his unique id number, his first and last name and contact information be which he can be reached
- Users should be able to create ticket with description of their issue and set its level of urgency
- Users should be able to sort tickets by its creator, time of creation, level of urgency or status
- Ticket should contain it's own id, id of a user that submitted it, its time of creation, list of developers working on the issue, a quick one line summary of a issue, a more detailed description of a issue, issues level of urgency and its status i.e. if ticket is open and is waiting to be worked on, if its worked on or if its closed. It should also contain a comment section where developers can track their progress on the issue and have the ability to upload images.

User Classes and Characteristics

There will be two tiers of classes: Developer and Moderator.

Developer will have all the functionality of a Basic user plus in addition:
- Create a ticket with a issue
- Can sort tickets by their status, urgency, time of creation, type of issue, or only tickets he is working on
- Change status of a ticket from open to worked on or closed
- Can assign and unassign himself as a developer working on a ticket
- Once he assign himself to a ticket, he gains access to a contact information about user who submitted the ticket

Moderator will have all the functionality of a developer plus in addition:
- Can create new project in Projects section in which developers can create tickets with issues
- Can assign multiple developers to a ticket
- Can change the urgency and status of a ticket
- Has ability to delete not relevant tickets
- Has access to contact information of all users
- Has ability to create and delete accounts and change their classes

External Interface Requirements

User Interfaces

The project will be developed as a web application.
- Front-end of an application should be created using HTML/CSS and JavaScript.
- Back-end should be built using Expressjs
- Data should be stored and retrieved using the MongoDB database.

Hardware Interfaces

Application should be able to run on any operating system with a web browser.

Nonfunctional Requirements

Performance Requirements

- The application should load and be usable within 5 seconds
- Database should be normalized to prevent redundant data and improve performance

Safety Requirements

Database should be backed up regularly to prevent loss of data

Software Quality and Attributes

- Availability: This application is critical to managing employee issues in a company environment
- Maintainability: The moderators should maintain correct usage of an urgency level and ensure that users do not overflow the application with trivial issues.
- Usability: The interface should be easy to learn without a tutorial and allow users to accomplish their goals without errors.