Bug Tracking System Documentation

Introduction

The Bug Tracking System is a comprehensive application designed to manage and track bugs within software projects. This document outlines the application's architecture, functionality, and key components

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Team Composition

* (Akram Ali - Documentation Specialist
* Sabbir Ahmed - Coding Compliance Officer
* Rohith Suresh - Application Developer
* Pearl John - Front End Designer
* Hanan Hussain - PowerPoint Specialist

Technical Overview

The application is developed using Python with tkinter for the graphical user interface (GUI). It features a modular design with classes dedicated to handling different aspects of the bug tracking process.

Key Components HelpFrame

* Purpose: Provides help information and instructions to the users.
* Methods:
  + init : Initializes the help frame and its components. ViewBugFrame
* Purpose: Displays existing bugs and allows for updates.
* Methods:
  + read\_bug\_data: Reads bug data from a CSV file.
  + create\_update\_button: Generates a button for updating specific bugs.
  + find\_bug\_by\_id: Retrieves bug details by ID.
  + show\_update\_window: Opens a window for updating bug details.
  + update\_bug\_in\_csv: Updates the bug information in the CSV file.
  + create\_bug\_table: Displays a table of all bugs.

BugTracker

* Purpose: Main application class that manages the GUI and frames.
* Methods:
  + toggle\_help\_frame: Shows or hides the help frame.
  + toggle\_view\_bug\_frame: Shows or hides the bug viewing frame.
  + create\_beautiful\_button: Creates styled buttons for the GUI.
  + toggle\_submit\_form: Toggles the visibility of the bug submission form.
  + submit\_bug: Submits a new bug to the system.
  + clear\_fields: Clears input fields in the form.

Challenges

* We faced a challenge where a Teammates had a Health Treatment and he was held back because of the treatment , we solved this obstacle by staying in contact with him and jump starting his part of the project so It is easier to resume it when he is feeling better

Effective Collaboration

* Our success stems from a well-structured collaboration and communication strategy. Regular meetings, clear task delegation, and mutual support allowed us to tackle the project efficiently. For instance, when faced with the challenge of managing the increased workload from exams and assignments, team members stepped in to assist each other, ensuring that no aspect of the project suffered.

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Unique Selling Points

* The Bug Tracking System stands out for its comprehensive and real-time bug management capabilities, housed within a user-friendly tkinter interface. Its modular design supports easy customization and scalability, ensuring robust data integrity and error handling. Ideal for any software development team, this system enhances efficiency and accuracy in tracking and resolving software bugs, making it a vital tool for maintaining software quality.

Conclusion

I'm proud to say that our project has successfully delivered a robust and user-friendly platform for managing software bugs. Our system combines comprehensive tracking features with

real-time updates and a scalable design, making it an essential tool for developers aiming to improve software quality and team efficiency