American International University- Bangladesh

PROGRAMMING IN PYTHON

Project Report
FALL 23-24

Project Title: Bug Tracker
Group Number: 09
Section: A

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Bug Tracker

The project is a Bug Tracking system that lets users maintain bug report files, change pre-existing bug reports, and submit new problems in order to make managing software defects easier. The system, which is easy to use and is implemented in Python, has an interactive menu-driven interface. Important aspects of the project consist of:

Filing a New Bug: Users can report a new bug by entering information about the bug, including its title, type, priority, description, and status, along with their name. Every report is stored in a file with a unique name.

Updating the Status of a Bug: This feature lets users make changes to an existing bug report by selecting from pre-established status alternatives.

Viewing Bug Reports: Users can examine bug information at any moment by providing the filename of the report they want to view in order to view its details.

Delete Bug Reports: The system enables users to remove files containing bug reports, so that reports that have been resolved or are no longer relevant can be eliminated from the system.

Update Bug Description, Title, and Priority: These features allow you to make modifications to a bug report after it has been filed, taking into account changes in the severity or evaluation of the bug.

System Exit: Users have the option to end the program at any time by leaving the bug tracking system.

Overall, this Bug Tracking System project ensures an organized approach to bug management by providing a straightforward yet efficient method for managing software issues, from reporting and tracking to updating and removing bug reports.

1. Filing a New Bug:

The feature allows users to file a new bug report. The implementation prompts the user to input their name, bug title, type, priority, description, and status. It then creates a new file with a name composed of the user's name and an incremental ID. The relevant code segments include generating the filename, writing user input to the file, and utilizing functions like `choose_priority()` and `choose_status()` for selecting bug priority and status.

2. Updating the Status of the Bug:

This feature enables users to update the status of a bug report. Users input the filename of the bug they wish to update and choose a new status from predefined options. The code segment for this feature calls the `change_status()` function, which prompts the user for the filename and utilizes `choose_status()` to select the new status. The `update_file()` function is then called to modify the bug file with the new status.

3. Getting Bug Report:

The bug report feature allows users to view the content of a bug report file. Users input the filename of the bug report they want to view, and the system displays its content. The code for this feature is encapsulated within the `report()` function, which opens the specified file and prints its contents using the `read()` method.

4. Deleting a Bug:

This feature allows users to delete a bug report file from the system. Users input the filename of the bug report they want to delete, and if the file exists, it is removed from the system. The implementation checks the existence of the file using `os.path.exists()` and removes it using `os.remove()` if found.

5. Updating Bug Description, Title, and Priority:

These features enable users to update the description, title, and priority of a bug report, respectively. Users input the filename of the bug report they want to update, and then provide the new description, title, or select a new priority. The code segments for each feature utilize functions like `update_bug_description()`, `update_bug_title()`, and `update_bug_priority()`, which prompt the user for input and call `update_file()` to modify the relevant field in the bug report file.

6. Exiting the Bug Tracking System:

This feature allows users to exit the bug tracking system. Upon selecting this option, the program terminates, ending the user's session. The implementation is straightforward, with the program breaking out of the main loop and displaying a goodbye message.