Software Testing Techniques Employed for Milestones

Journal Assignment 5-1

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In the software development process, testing plays a crucial role in ensuring the quality and reliability of the software. This report aims to discuss the software testing techniques employed for each milestone in your project. Specifically, we will explore the characteristics of the testing techniques used, as well as the practical uses and implications of these techniques in different software development projects and situations.

Milestone 3: Testing services that add, update, and delete contact objects within the application.

For this milestone, two software testing techniques were employed:

* Static testing involves reviewing and analyzing the code, requirements, and design documents without executing the program. This technique helps identify defects early in the development process. In the context of adding, updating, and deleting contact objects, static testing could involve code reviews, requirement analysis, and design document inspections to ensure the correctness and completeness of the implementation.
* Dynamic testing, on the other hand, involves executing the code and testing the functionality of the application. It includes techniques like unit testing, integration testing, and system testing. In this milestone, dynamic testing would be used to verify that the services for adding, updating, and deleting contact objects are functioning as expected.

Milestone 4: Testing services in Java that add, update, and delete task objects within the application.

* Like Milestone 3, dynamic testing is employed to validate the functionality of the services in Java. This ensures that the services for adding, updating, and deleting task objects are working correctly.

Milestone 5: Testing services in Java that test using code to uncover errors in a mobile application, specifically adding, updating, and deleting appointment objects within the application.

* Again, dynamic testing is utilized to validate the functionality of the services in Java. This ensures that the services for adding, updating, and deleting appointment objects within the mobile application are functioning as intended.

Other Software Testing Techniques:

While the mentioned milestones primarily focused on static and dynamic testing techniques, there are other techniques that could be employed in software testing. These include:

* Black box testing focuses on testing the functionality of the software without considering its internal structure or implementation details. Testers only have access to the inputs and outputs of the system. This technique is useful when the emphasis is on the external behavior of the software, such as user interactions and system responses.
* White box testing involves testing the internal structure, code, and implementation details of the software. Testers have access to the source code and can design tests based on the internal logic of the system. This technique is beneficial for verifying the internal logic and structure of the software, ensuring that all code paths are tested.
* Regression testing is used to ensure that changes or modifications in the software do not introduce new defects or break existing functionality. It involves retesting previously tested features to ensure they still work as expected. This technique is important when changes are made to the software to ensure that existing functionality is not affected.

In conclusion, the software testing techniques employed for each milestone in your project included static testing and dynamic testing. These techniques were used to ensure the correctness and functionality of the services for adding, updating, and deleting various objects within the application. Additionally, other techniques such as black box testing, white box testing, and regression testing could also be considered for future testing efforts, depending on the specific requirements and objectives of the software development project.

**References**

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