ACME-SF

G1.007

Previous knowledge about testing

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Cover

Repository: https://github.com/Pablo-Caballero-Maria/Acme-One-24.1.0-C1.07

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Executive summary

The purpose of this report is to explain, before the project itself starts, what knowledge each member of the group has about the testing process of web information systems, acquired through a variety of subjects prior to Design and Testing 2, including IISSI (Introduction to Software Engineering and Information Systems) and AISS (Architecture and Integration of Software Systems).

Revision table

Number	Date(dd/mm/yyyy)	Description
1.0	14/02/2024	Document done in its entirety, reviewed by peers. No major errors were found.

Introduction

The purpose of this document is to explain the previous knowledge of the group members about the testing of a web information system. This knowledge has been learned through previous subjects such as AISS, ISSI I and ISSI II, DP1, and involves a wide range of both theoretical and practical knowledge about web information systems testing, differnet techniques and technologies. This document has an executive summary, a revision table where there are versioned records, this introduction, the main content, and the conclusions of the report.

Contents

The knowledge acquired in software testing for a Web Information System (WIS) draws from diverse learning experiences. Unitary testing, performed using JUnit 5 and Postman, involved testing controllers and scrutinizing API functionality, with assertions serving to validate expected outcomes. We used this in order to do “integration testing”.

A foundational testing approach emerged through the implementation of standard SQL triggers. This phase introduced a method of testing, applying basic business rules that pertained to entities within the domain model.

We also know basic validation techniques using Express validators, providing a fundamental understanding of sintactic validation.

In the subject Design and Testing 1 (DP1), a comprehensive exploration of testing techniques unfolded. This encompassed unitary testing using JUnit Jupiter, "isolated testing" employing mocks for repositories, services, and controllers, and "social testing" that involved real components of the system. The execution of tests was facilitated through Maven lifecycle features. Moreover, advanced testing concepts, such as metamorphic testing and parameterized testing, were introduced in the theoretical classes.

The practical application of knowledge extended to the implementation of continuous integration using GitHub features in the A+ task of a member of the group. This involved executing Postman

tests with each push and merge, thereby integrating testing seamlessly into the development lifecycle.

Conclusions

The 5 members of the group have undergone the same study plan. Therefore, all of them possess the aforementioned knowledge in Web Information Systems and architectural patterns.

Bibliography

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