TESTING A WIS REPORT

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1. Executive summary

This document is intended to show all our knowledge of testing a WIS before this subject.

2. Revision table

No	Date	Description
1.0	12/02/2023	Initial draft of the document

3. Introduction

In this report we will be discussing the importance of software testing in a WIS and the different kinds of tests commonly used in web development.

4. Contents

As software developers we want to know that the code we are writing works the way it is expected to. The developers often make mistakes during development and insert unexpected behavior inside the code. Leaving all these bugs and errors affecting the work of other people is totally unacceptable, so we have a responsibility, trying to launch tested working software and deliver good software quality to our clients.

To reduce this impact to the minimum, we usually write tests to inspect the code. There are a great deal of tests depending on what you are going to expect from the software.

4.1. Unit testing

Is a software development process that aims to debug the smallest logic unit of our application. It enables developers to debug their code easily rather than debugging the whole application. In addition, we can verify that all the smallest components are working well in each run of the SUT class.

4.2. Integration tests

Other types of testing that aim for the correct interoperability between software components. For instance, the database and the application.

4.3. End to End Tests

End to end test (E2E) is a specific type of testing that ensures that the system is working as expected with all its components. The goal is to test the application from the end user perspective. Given a user scenario, we will validate all of its actions and expect a certain behavior. This is commonly used in web-based systems as you can see the interaction of the application as a whole.

4.4. Acceptance tests

It is a test to determine if the delivered software meets the requirement specifications of the end user. It is a high-level test that has different acceptance criteria, and if all of them are not fulfilled, enables the end user whether to accept the system.

5. Conclusions

We have discussed the importance of software testing and the drawbacks of not writing them. We have briefly introduced the different kinds of tests regarding a WIS.

6. Bibliography

Previous information was extracted by coursing these subjects.

- Introduction to software testing DP1 and IISSI 2 and AISS subjects.

Technologies used:

- Unit Testing with JUNIT.
- Mocking with mockito and test reporting with JACOCO.
- End to end testing of an API performed with Postman and Thunderclient.