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Strategy
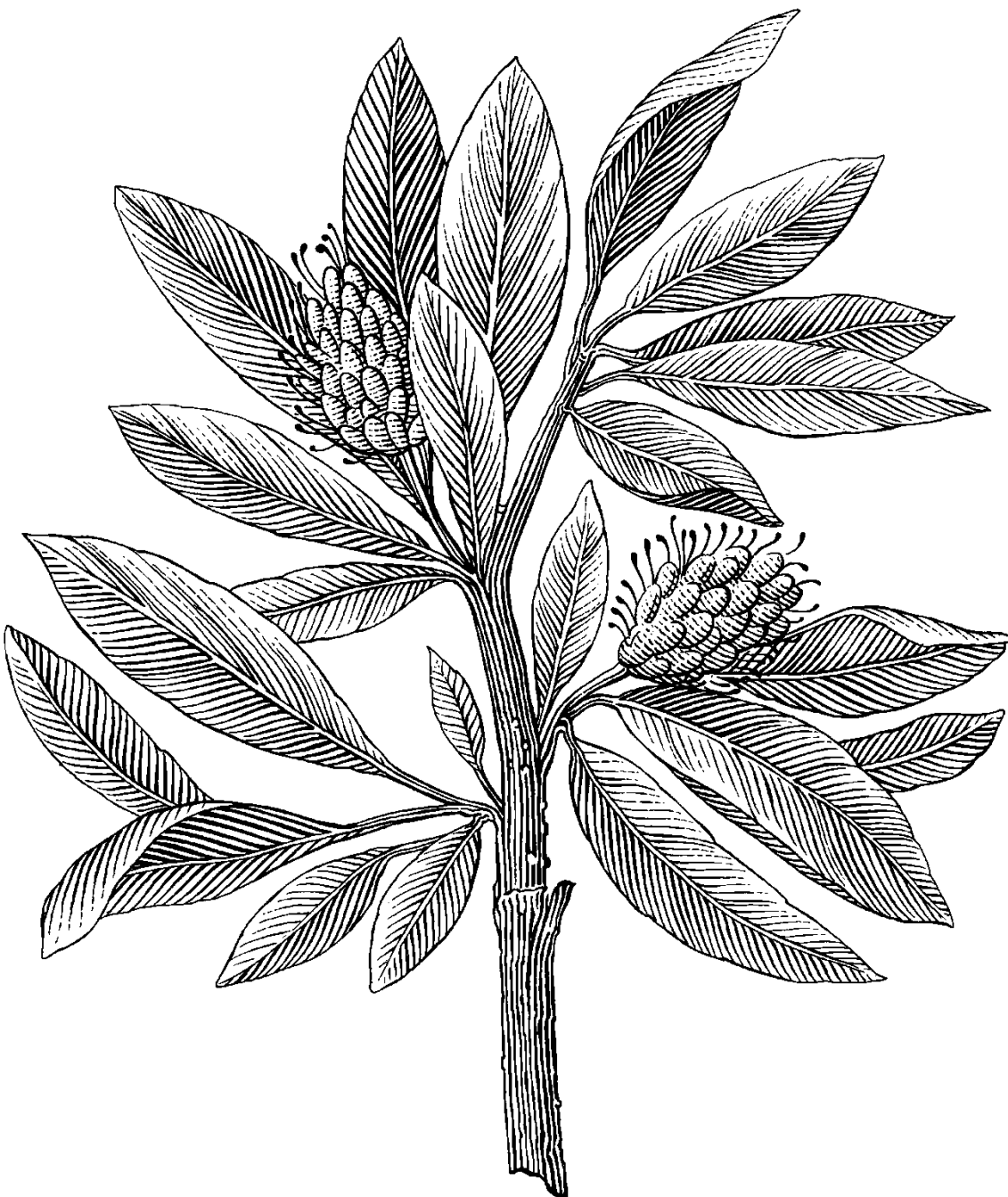
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1.Introduction

A software development company "SDC" found an open-source abandoned software called "My Web Server" which might be a market niche for giving out a simple to deploy web-server. SDC planned to use this web-server on a wide range of Internet Of Things (IoT). Now they need to test "My Web Server" to see if it can fulfil their desired requirement to use it in this massive market of IoT. To realize if MWS is compatible to be used by SDC, it needs to satisfy the different stakeholders' requirements. The stakeholders and their relevant testing goals are explained in the following sections.

2.Stakeholders and their test goals

- **SDC management**

  SDC wants an easy-to-deploy java-web-server that can be deployed on a variety range of devices, and therefore that can attract the attention of a wide range of IoT developers. SDC needs to know if the abandoned software fulfils the requirements as stated in the requirement document.

- **IoT developer**

    .   IoT-developers want minimal configuration as well as easy integration an daptation of the web-server.

- **SDC test lead**

  Test lead's job as SDC employee(s) is to evaluate the current state of "My web server".

- **End-costumer**

      End-customers want easy access and absolute security.

3. Resources

a. Time
 SDC wants testing done a maximum of one week, so the tester plan to do a minimum of 20 hours with the possibility of extending to 40 hours

b. Human Resource
 Due to a lack of budget, only 1 tester works on this project.

c. Equipment
Here is a list of available equipment.

- Laptop hp with windows 10 OS installed on.
- JDK 13
- IntelliJ IDEA
- Postman
- Apache JMeter

d. Other

Access to testing expert and domain knowledge expert.

4.Requirement

This section can divide into 2 parts

- Requirements exist in each stakeholder's goals.
1. Req1. Web application needs to fulfil the requirements stated in the original requirement document.
2. Req2. Web application needs to be an easy-to-deploy java-web-server with the possibility of compatibility on different devices.
3. Req3. Web application needs to have a minimal configuration.
4. Req4. Web application needs to have easy integration and adaption of the web-server.
5. Req5. Web application needs to be easily accessible with end-user
6. Req6. Web application needs to have absolute security.

- To fulfil Req1, requirements and use cases from legacy MWS app must be tested:

    1. Req1.1 use case 1 "Start Server" should be tested.

     2. Req1.2 use case 2 "Stop Server" should be tested.

     3. Req1.3 use case 3 "Request shared resource" should be tested.

     4. Req1.4 The source code should be released under GPL-2.0

     5. Req1.5 The web server must follow minimum requirements for HTTP 1.1

      6. Req1.6 The web server should be responsive under high load.

      7. Req1.7 The web server must work on Linux, Mac, Windows*.

       8. Req1.8 The access log should be viewable from a text editor.

      *XP, Vista, 7, 8, 10, Server 2008

5.Strategy

Now that all stakeholders are known and the test lead is aware of their testing goals and the available resources, it is time to prepare a suitable strategy to define how the stakeholders' testing goals would accomplish. For doing that, the test lead needs to divide the current iteration into four steps as follow:

- First, the tester should do exploratory testing to find out how the system works and plan for manual test cases and make additional automated tests if required.

- After inspecting the source code, the tester found automation tests, so one step is to run automation tests, see the coverage and discuss the results.

- After checking the provided use cases, the test lead makes manual test cases and demonstrates the results in the report document.

- Plan for test Non-Functional requirements such as performance test, stress test, and security test.

- Do acceptance test

The first two steps will cover 20 hours, the 3rd and 4th steps, the test lead goes for 40 hours (it does not mean they are in the right order, it might change in the order of doing them). Explanation of how the tests carry out would be in a separate file called "testPlan.pdf". All steps of doing manual tests in detail covered in the "testCase.pdf" file. Finally, the result of testing is discussed in the "testReport.pdf" file.

6.Final Deliverables

- Strategy.pdf
- testPlan.pdf
- testCases.pdf
- testReport.pdf