

Team 6 - CSCI 362

Alan Arsiniega, Cameron Reuschel, Jacob Ballou

Project 1 Documentation

Chapter 1

Introduction

In this stage of the project, our team has compiled the OpenMRS software and has run the included snapshot tests. The goal of this stage is to test the functionality of our software, confirm that it passes its built-in tests, and that it will be stable for future testing. Below are the steps we went through to prepare, compile, and test the program.

Preparation for the Deployment of OpenMRS

For the compilation and deployment of OpenMRS on Ubuntu, a few programs were required. A version of Java 8 or lower was required for the program to function. For this task, we installed OpenJDK8, as it provided us with the level of functionality we needed for the project.

Git is also required for pulling the repository on github. There are multiple versions and extensions for OpenMRS. We pulled the core version, as this was the only part of OpenMRS 2.3.0 pertinent to our use of the webapp.

For the compilation of OpenMRS, the program required Apache Maven, a software management tool. For this project, the latest version of Maven, 3.6.0, was utilized. This allowed us to successfully build the program and launch the webapp.

Compiling of OpenMRS

The repository was pulled from Github and compiled using Maven. Depending on the machine, the compilation took between 2 to 20 minutes. Upon the first compilation, Maven initiated tests immediately afterwards, giving off errors within the openmrs-api component of the software. After not finding an immediate solution, it was decided to recompile the software, and retest it after its completion.

Testing of OpenMRS

Several tests were run using the provided test cases within OpenMRS. Through the use of Maven, the tests were iterated for OpenMRS, and each of its components. The tests were broken into 6 categories:

- OpenMRS
- openmrs-tools
- openmrs-test
- openmrs-api

- openmrs-web
- openmrs-webapp

Upon the testing of the most recent release of OpenMRS core, there were some test failures experienced during the run. Maven encountered two failures while testing the openmrs-api, and refused to test further.

```

Tests run: 4123, Failures: 1, Errors: 0, Skipped: 36

[INFO] -----
[INFO] Reactor Summary for OpenMRS 2.3.0-SNAPSHOT:
[INFO]
[INFO] OpenMRS ..... SUCCESS [ 0.863 s]
[INFO] openmrs-tools ..... SUCCESS [ 0.527 s]
[INFO] openmrs-test ..... SUCCESS [ 0.023 s]
[INFO] openmrs-api ..... FAILURE [03:34 min]
[INFO] openmrs-web ..... SKIPPED
[INFO] openmrs-webapp ..... SKIPPED
[INFO] -----
[INFO] BUILD FAILURE
[INFO] -----
[INFO] Total time: 03:36 min
[INFO] Finished at: 2019-09-11T11:08:35-07:00
[INFO] -----
[ERROR] Failed to execute goal org.apache.maven.plugins:maven-surefire-plugin:2.18.1:test (default-test) on project openmrs-api: There are test failures.
[ERROR] Please refer to /home/mitsu/repositories/OpenMRS/openmrs-core/api/target/surefire-reports for the individual test results.
[ERROR] -> [Help 1]
[ERROR]
[ERROR] To see the full stack trace of the errors, re-run Maven with the -e switch.
[ERROR] Re-run Maven using the -X switch to enable full debug logging.
[ERROR]
[ERROR] For more information about the errors and possible solutions, please read the following articles:
[ERROR] [Help 1] http://cwiki.apache.org/confluence/display/MAVEN/MojoFailureException
[ERROR]
[ERROR] After correcting the problems, you can resume the build with the command
[ERROR] mvn <goals> -rf :openmrs-api

```

Figure 1: Test Run of OpenMRS core 2.3.0 with Maven. The test was unsuccessful

These issues occurred on version 2.3.0-alpha. Two failures occurred after 4123 successful test runs. From the error log, this appears to be a conflict with one of the plugins and OpenMRS.

The previous version, OpenMRS 2.2.0, was tested a couple weeks prior and compiled with no errors. It may be pertinent for the project to downgrade to this version if the errors cannot be solved.

Running of the Software

Despite the errors, we were able to create and run the webapp of OpenMRS. The only issue that occurred with version 2.3.0 was when there was an attempt to create a database. When this

would occur, the server would refuse to, and would respond with errors referencing SQL. This seems to be an issue with an OpenMRS plugin.

Conclusion

The installation of OpenMRS and testing it seems more-or-less a straightforward process. A few errors were encountered during the process, and some issues with the use of the software were detected. This appears to be an issue with the version of OpenMRS, and we are contemplating the possibility of using an earlier version of the software.