1. Testing Process

Introduce the testing chapter.

* 1. Unit Tests – generate the unit test cases for the classes. You **must** use a unit testing tool e.g., Junit and a code coverage tool EclEmma.
  2. Subsystem Tests – test at least one subsystem using test cases derived from the systems test cases. This will involve the creation of a test driver i.e. a main in the package containing the subsystem and one or more stubs. Use a similar format to that in section 7.1 to document the tests performed. Include the code for the test driver in appendix E. You **must** use a unit testing tool and a code coverage tool.
  3. System Tests – use format described in class. Note the systems test cases should be derived from the use cases (i.e. scenarios). For each use case implemented you should write at least 3 test cases (2 sunny day and one rainy day). **Must** use an automated system testing tool, e.g. Rational Functional Tester or Selenium.

Selenium IDE Chrome Extension has been used for the total of 40 system Tests.

* 1. Evaluation of Tests –
     1. Use a table to show all the test results and comment on how to possibly fix the bugs. Columns of table (*Test Case ID, Pass/Fail, Fix*)

|  |  |  |
| --- | --- | --- |
| Test Case ID | Pass/Fail | Fix |
| SOS-UnitTest-001 | Pass | N/A |
| SOS-UnitTest-002 | Pass | N/A |
| SOS-UnitTest-003 | Pass | N/A |
| SOS-UnitTest-004 | Pass | N/A |
| SOS-UnitTest-005 | Fail | N/A |
| SOS-UnitTest-006 | Pass | N/A |
| SOS-UnitTest-007 | Fail | N/A |
| SOS-UnitTest-008 | Pass | N/A |
| SOS-UnitTest-009 | Pass | N/A |
| SOS-UnitTest-010 | Pass | N/A |
| SOS-UnitTest-011 | Pass | N/A |
| SOS-UnitTest-012 | Pass | N/A |
| SOS-UnitTest-013 | Pass | N/A |
| SOS-UnitTest-014 | Pass | N/A |
| SOS-UnitTest-015 | Pass | N/A |
| SOS-UnitTest-016 | Pass | N/A |
| SOS32-System-001-Sunny-01 | Pass | N/A |
| SOS32-System-002-Sunny-02 | Pass | N/A |
| SOS32-System-003-Rainy-01 | Pass | N/A |
| SOS32-System-004-Rainy-02 | Pass | N/A |
| SOS07-Security-017-Sunny-09 | Fail | Submit form data has to be fixed |
| SOS07-Security-018-Sunny-10 | Fail | Submit form data has to be fixed |
| SOS07-Security-019-Rainy-09 | Pass | N/A |
| SOS07-Security-020-Rainy-10 | Pass | N/A |
| SOS16-System-021-Sunny-11 | Pass | N/A |
| SOS16-System-022-Sunny-12 | Pass | N/A |
| SOS16-System-023-Rainy-11 | Fail | Input validation for the create organization form |
| SOS16-System-024-Rainy-12 | Pass | Showing a message about duplicate organization\* |
| SOS01-System-025-Sunny-13 | Fail | Time picker message format should be modified to match DB entries |
| SOS01-System-026-Sunny-14 | Fail | Time picker message format should be modified to match DB entries |
| SOS01-System-027-Rainy-13 | Pass | Showing a message about blank fields\* |
| SOS01-System-028-Rainy-14 | Pass | N/A |
| SOS31-System-029-Sunny-15 | Pass | N/A |
| SOS31-System-030-Sunny-16 | Pass | N/A |
| SOS31-System-031-Rainy-15 | Pass | Showing an error message\* |
| SOS31-System-032-Rainy-16 | Pass | Showing an error message\* |
| SOS22-System-033-Sunny-17 | Pass | Does not automatically login right after registration\* |
| SOS22-System-034-Sunny-18 | Pass | Does not automatically login right after registration\* |
| SOS22-System-035-Rainy-17 | Pass | Showing an error message\* |
| SOS22-System-036-Rainy-18 | Pass | Showing an error message\* |
| SOS17-System-037-Sunny-19 | Pass | N/A |
| SOS17-System-038-Sunny-20 | Pass | N/A |
| SOS17-System-039-Rainy-19 | Pass | N/A |
| SOS17-System-040-Rainy-20 | Pass | N/A |
| SOS02-System-009-Sunny-05 | Pass | N/A |
| SOS02-System-010-Sunny-06 | Pass | N/A |
| SOS02-System-011-Rainy-05 | Pass | N/A |
| SOS02-System-012-Rainy-06 | Pass | N/A |
| SOS04-System-013-Sunny-07 | Pass | N/A |
| SOS04-System-014-Sunny-08 | Pass | N/A |
| SOS04-System-015-Rainy-07 | Pass | N/A |
| SOS04-System-016-Rainy-08 | Pass | N/A |
| SOS10-System-005-Sunny-03 | Pass | N/A |
| SOS10-System-006-Sunny-04 | Pass | N/A |
| SOS10-System-007-Rainy-03 | Pass | N/A |
| SOS10-System-008-Rainy-04 | Pass | N/A |

* + 1. Use a table to show the code coverage for the unit, subsystem and systems testing. Columns of the table (*Type of testing, Number of Test Cases, Number of Bugs, Code Coverage*)