We will be doing **Functional testing** from **Black box testing** in our project.

As our project Farm management system is very end user heavy and has very complex functional requirements for the end users, we want to use Functional testing.

* We will attempt to find errors in the following categories:

1. incorrect or missing functions
2. interface errors
3. errors in external database access (accessibility)
4. behavior or performance errors
5. initialization and termination errors

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| Project Name: Farm Management System | | | Test Designed by: Jahid Hasan | | |
| Test Case ID: FR\_1 | | | Test Designed date:11/7/2021 | | |
| Test Priority (Low, Medium, High): Medium | | | Test Executed by: Nasiruddin | | |
| Module Name: Login Session | | | Test Execution date:11/7/2021 | | |
| Test Title: verify login with valid username and password | | | | | |
| Description: Test website login page | | | | | |
| Precondition (If any): User must have valid username and password | | | | | |
| Test Steps | Test Data | Expected Results | | Actual Results | Status (Pass/Fail) |
| 1. Go to the application 2. Enter username 3. Enter password 4. Click login | Username: 99999999999  Password: 321 | User should login into the application | | As expected, | Pass |

## **EXERCISE - 6: Project Test Planning**

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| Project Name: Farm Management System | | | Test Designed by: Jahid Hasan | | |
| Test Case ID: FR\_2 | | | Test Designed date:11/7/2021 | | |
| Test Priority (Low, Medium, High): Medium | | | Test Executed by: Nasiruddin | | |
| Module Name: Edit Profile | | | Test Execution date:11/7/2021 | | |
| Test Title: verify the ability to change profile information | | | | | |
| Description: Test edit profile function | | | | | |
| Precondition (If any): User must have valid username and password | | | | | |
| Test Steps | Test Data | Expected Results | | Actual Results | Status (Pass/Fail) |
| 1. Go to the application 2. Login 3. Click on User Profile 4. Click edit profile 5. Edit Name 6. Enter password 7. Click confirm | Username: 99999999999  Password: 321  New Username:  1111111111 | User profile should be changed to the new data. | | As expected, | Pass |

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| Project Name: Farm Management System | | | Test Designed by: Jahid Hasan | | |
| Test Case ID: FR\_3 | | | Test Designed date:11/7/2021 | | |
| Test Priority (Low, Medium, High): Medium | | | Test Executed by: Nasiruddin | | |
| Module Name: Change Password | | | Test Execution date:11/7/2021 | | |
| Test Title: verify the ability to change password | | | | | |
| Description: Test change password function | | | | | |
| Precondition (If any): User must have valid username and password | | | | | |
| Test Steps | Test Data | Expected Results | | Actual Results | Status (Pass/Fail) |
| 1. Go to the application 2. Login 3. Click on User Profile 4. Click edit profile 5. Click Change password 6. Enter new password 7. Confirm new password 8. Enter old password 9. Click confirm 10. Login with new password | Username: 99999999999  Password: 321  New password:  56789 | User password should be changed to the new password. | | As expected, | Pass |

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| Project Name: Farm Management System | | | Test Designed by: Jahid Hasan | | |
| Test Case ID: FR\_4 | | | Test Designed date:11/7/2021 | | |
| Test Priority (Low, Medium, High): Medium | | | Test Executed by: Nasiruddin | | |
| Module Name: Add Sensor | | | Test Execution date:11/7/2021 | | |
| Test Title: verify the ability to add new sensors via Bluetooth | | | | | |
| Description: Test Add Sensors via Bluetooth function | | | | | |
| Precondition (If any): User must have a valid username, password and sensor | | | | | |
| Test Steps | Test Data | Expected Results | | Actual Results | Status (Pass/Fail) |
| 1. Go to the application 2. Login 3. Click Add Sensor 4. Select via Bluetooth 5. Click confirm | Username: 99999999999  Password: 321  Sensor | New sensor should be added in user profile. | | As expected, | Pass |

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| Project Name: Farm Management System | | | Test Designed by: Jahid Hasan | | |
| Test Case ID: FR\_5 | | | Test Designed date:11/7/2021 | | |
| Test Priority (Low, Medium, High): Medium | | | Test Executed by: Nasiruddin | | |
| Module Name: Add Sensor | | | Test Execution date:11/7/2021 | | |
| Test Title: verify the ability to add new sensors manually | | | | | |
| Description: Test Add Sensors manually function | | | | | |
| Precondition (If any): User must have a valid username, password and sensor id | | | | | |
| Test Steps | Test Data | Expected Results | | Actual Results | Status (Pass/Fail) |
| 1. Go to the application 2. Login 3. Click Add Sensor 4. Select Manually enter sensor id 5. Enter sensor id 6. Click confirm | Username: 99999999999  Password: 321  Sensor id:  99999999 | New sensor should be added in user profile. | | As expected, | Pass |

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| Project Name: Farm Management System | | | Test Designed by: Jahid Hasan | | |
| Test Case ID: FR\_6 | | | Test Designed date:11/7/2021 | | |
| Test Priority (Low, Medium, High): Medium | | | Test Executed by: Nasiruddin | | |
| Module Name: Add Sensor | | | Test Execution date:11/7/2021 | | |
| Test Title: verify the ability to add new sensors with QR code | | | | | |
| Description: Test Add Sensors by scanning QR code function | | | | | |
| Precondition (If any): User must have a valid username, password and sensor QR code | | | | | |
| Test Steps | Test Data | Expected Results | | Actual Results | Status (Pass/Fail) |
| 1. Go to the application 2. Login 3. Click Add Sensor 4. Select scan QR code 5. Click camera icon 6. Scan the QR code with camera 7. Click confirm | Username: 99999999999  Password: 321  Sensor QR picture | New sensor should be added in user profile. | | Camera could not focus and read QR code | Fail |

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| Project Name: Farm Management System | | | Test Designed by: Jahid Hasan | | |
| Test Case ID: FR\_7 | | | Test Designed date:11/7/2021 | | |
| Test Priority (Low, Medium, High): Medium | | | Test Executed by: Nasiruddin | | |
| Module Name: Sync Data | | | Test Execution date:11/7/2021 | | |
| Test Title: verify the ability to instantly initiate syncing of sensor data | | | | | |
| Description: Test manual syncing of sensor data function | | | | | |
| Precondition (If any): User must have a valid username, password and connected sensor | | | | | |
| Test Steps | Test Data | Expected Results | | Actual Results | Status (Pass/Fail) |
| 1. Go to the application 2. Login 3. Click Sync Data 4. Click Sync now | Username: 99999999999  Password: 321  Sensor \*connected\* | Sensor data should be updated in user profile. | | As expected, | Pass |

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| Project Name: Farm Management System | | | Test Designed by: Jahid Hasan | | |
| Test Case ID: FR\_8 | | | Test Designed date:11/7/2021 | | |
| Test Priority (Low, Medium, High): Medium | | | Test Executed by: Nasiruddin | | |
| Module Name: Sync Data | | | Test Execution date:11/7/2021 | | |
| Test Title: verify the ability to automatically sync sensor data | | | | | |
| Description: Test automatic syncing of sensor data function | | | | | |
| Precondition (If any): User must have a valid username, password and connected sensor | | | | | |
| Test Steps | Test Data | Expected Results | | Actual Results | Status (Pass/Fail) |
| 1. Go to the application 2. Login 3. Click auto sync to turn on 4. Select 1h 5. Click back 6. Wait 1h | Username: 99999999999  Password: 321  Sensor \*connected\* | Sensor data should be updated in user profile. | | As expected, | Pass |

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| Project Name: Farm Management System | | | Test Designed by: Jahid Hasan | | |
| Test Case ID: FR\_8 | | | Test Designed date:11/7/2021 | | |
| Test Priority (Low, Medium, High): Medium | | | Test Executed by: Nasiruddin | | |
| Module Name: Add Space | | | Test Execution date:11/7/2021 | | |
| Test Title: verify the ability to add crop fields | | | | | |
| Description: Test Adding Crop field function | | | | | |
| Precondition (If any): User must have a valid username, password | | | | | |
| Test Steps | Test Data | Expected Results | | Actual Results | Status (Pass/Fail) |
| 1. Go to the application 2. Login 3. Click Add Space 4. Select Crop field 5. Select field length and width 6. Click add | Username: 99999999999  Password: 321  Length: 5  Width: 6 | New crop field should be added in user profile. | | As expected, | Pass |

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| Project Name: Farm Management System | | | Test Designed by: Jahid Hasan | | |
| Test Case ID: FR\_9 | | | Test Designed date:11/7/2021 | | |
| Test Priority (Low, Medium, High): Medium | | | Test Executed by: Nasiruddin | | |
| Module Name: Add Space | | | Test Execution date:11/7/2021 | | |
| Test Title: verify the ability to add Animal rooms | | | | | |
| Description: Test Adding Animal room function | | | | | |
| Precondition (If any): User must have a valid username, password | | | | | |
| Test Steps | Test Data | Expected Results | | Actual Results | Status (Pass/Fail) |
| 1. Go to the application 2. Login 3. Click Add Space 4. Select Animal room 5. Select room length and width 6. Click add | Username: 99999999999  Password: 321  Length: 5  Width: 6 | New Animal room should be added in user profile. | | As expected, | Pass |

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| Project Name: Farm Management System | | | Test Designed by: Jahid Hasan | | |
| Test Case ID: FR\_10 | | | Test Designed date:11/7/2021 | | |
| Test Priority (Low, Medium, High): Medium | | | Test Executed by: Nasiruddin | | |
| Module Name: Add Space | | | Test Execution date:11/7/2021 | | |
| Test Title: verify the ability to add Fish ponds | | | | | |
| Description: Test Adding Fish Pond function | | | | | |
| Precondition (If any): User must have a valid username, password | | | | | |
| Test Steps | Test Data | Expected Results | | Actual Results | Status (Pass/Fail) |
| 1. Go to the application 2. Login 3. Click Add Space 4. Select Fish Pond 5. Select pond length, width and depth 6. Click add | Username: 99999999999  Password: 321  Length: 5  Width: 6  Depth: 4 | New Fish pond should be added in user profile. | | Wrong unit of depth was added | Fail |