**Group Name: TiTechnics**

**Software Construction and Development**

**Deliverable 03 & 04**

18th May 2024

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**Development and Testing**

**Personal Finance Tracker**

1. **Refactoring Techniques**

**1.1 Removing dead code**

We removed excessive methods that were repetitive throughout the code.

* 1. **Prevention of Long Class/Bloaters**

We created number of different classes for each module to separate functionalities, hence improving readability.

* 1. **Prevention of Lazy Class**

We removed all the classes that were no longer functional.

* 1. **Avoiding Object Oriented Abusers**

We mapped the code with package diagram, to properly implement principles of Object Oriented Paradigm.

* 1. **Using Proper Naming Convention**

We used camel casing for the names of classes and methods.

1. **Test Cases**

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| **Test Scenario ID** | | Registration-1 | | | **Test Case ID** | | | Registration-1A | |
| **Test Case Description** | | Registration - Positive test case | | | **Test Priority** | | | High | |
| **Pre-Requisite** | | NA | | | **Post-Requisite** | | | User account created successfully | |
| Test Execution Steps: | | | | | | | | | |
| **S.No** | **Action** | | **Inputs** | **Expected Output** | | **Actual Output** | **Test Result** | | **Test Comments** |
| 1 | Launch application | | - | Application Launched. | | Application Launched. | Pass | | [Khadija 15/05/2024 10:57 PM]: Launch successful |
| 2 | Enter valid Username, Email, and Password and hit register button | | Username: user123 Email: user123 @gmail.com Password: password123 | Registration Successful. | | Registration Successful | Pass | | [Khadija 15/05/2024 10:57 PM]: Registration Successful. |

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| **Test Scenario ID** | | Registration-1 | | | **Test Case ID** | | | Registration-1C | |
| **Test Case Description** | | Registration - Negative test case (Invalid email format) | | | **Test Priority** | | | High | |
| **Pre-Requisite** | | NA | | | **Post-Requisite** | | | NA | |
| Test Execution Steps: | | | | | | | | | |
| **S.No** | **Action** | | **Inputs** | **Expected Output** | | **Actual Output** | **Test Result** | | **Test Comments** |
| 1 | Launch application | | - | Application Launched. | | Application Launched. | Pass | | [Khadija 15/05/2024 10:57 PM]: Launch successful |
| 2 | Enter valid Username, invalid Email format, and Password and hit register button | | Username: user123 Email: user123.com Password: password123 | Invalid email format. Please enter a valid email. | | Invalid email format. Please enter a valid email. | Pass | | [Khadija 15/05/2024 10:57 PM]: Invalid email format. |

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| **Test Scenario ID** | | Login-2 | | | **Test Case ID** | | | Login-2A | |
| **Test Case Description** | | Login – Positive test case | | | **Test Priority** | | | High | |
| **Pre-Requisite** | | A valid user account | | | **Post-Requisite** | | | Login successful | |
| Test Execution Steps: | | | | | | | | | |
| **S.No** | **Action** | | **Inputs** | **Expected Output** | | **Actual Output** | **Test Result** | | **Test Comments** |
| 1. | Launch application | | - | Application Launched. | | Application Launched. | Pass | | [Khadija 15/05/2024 10:57 PM]: Launch successful |
| 2. | Enter correct Username & Password and hit login button | | Username: khadija1234  Password: 1234 | Login success | | Login success | Pass | | [Khadija 15/05/2024 10:57 PM]: Login successful |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Test Scenario ID** | | Login-2 | | | **Test Case ID** | | | Login-2B | |
| **Test Case Description** | | Login – Negative test case | | | **Test Priority** | | | High | |
| **Pre-Requisite** | | NA | | | **Post-Requisite** | | | NA | |
| Test Execution Steps: | | | | | | | | | |
| **S.No** | **Action** | | **Inputs** | **Expected Output** | | **Actual Output** | **Test Result** | | **Test Comments** |
| 1 | Launch application | | - | Application Launched. | | Application Launched. | Pass | | [Khadija 15/05/2024 10:57 PM]: Launch successful |
| 2 | Enter invalid Username & any Password and hit login button | | Username : invalid123  Password: 123 | Incorrect username or password. Re-enter. | | Incorrect username or password. Re-enter. | Pass | | [Khadija 15/05/2024 10:57 PM]: Invalid login attempt stopped |