**1. Test Plan**

**Objective**

To validate all user stories while ensuring functionality, usability, and system performance meet acceptance criteria.

**Scope**

• **Registered User Login From New Device**

• **Individual Investor: Upgrade to Premium**

• **Approvals Notifications (SMS)**

• **Departments Approval**

• **Corporate Investor - Commercial Registration Verification**

**2. Risk-Based Testing (RBT)**

This ensures the highest-risk items are tested first.

| **Risk** | **Impact** | **Likelihood** | **Priority** | **Mitigation** |
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| OTP Delivery Failure for Login | High | High | Critical | Validate OTP generation and delivery. |

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| Document Upload Issues (Premium Upgrade) | High | Medium | High | Test upload handling for large files. |

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| Incorrect SMS Notifications (Loan Status) | High | Medium | High | Validate SMS content and delivery. |

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| Missing Department Approvals | High | Medium | High | Ensure approval timestamps are logged. |

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| Invalid Commercial Registration Accepted | High | Low | Medium | Re-test integration with 3rd-party API. |

**3. Detailed Test Cases**

**Title: Registered User Login From a New Device**

| **Test Case ID** | **Scenario** | **Steps** | **Expected Result** |
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| **TC\_Login\_001** | Successful Login | Enter valid credentials → Enter OTP → Click "Login". | User logged in, logged out from other devices, SMS sent. |

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| **TC\_Login\_002** | Invalid Phone Number | Enter invalid phone number → Click "Next". | Error: "Invalid phone number." |

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| **TC\_Login\_003** | Invalid Password | Enter valid phone, invalid password → Click "Next". | Error: "Invalid password." |

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| **TC\_Login\_004** | Empty OTP Submission | Leave OTP blank → Click "Login". | Error: "OTP cannot be empty." |

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| **TC\_Login\_005** | OTP Expiration | Use expired OTP → Click "Login". | Error: "OTP expired. Please request a new one." |

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| **TC\_Login\_006** | SMS Notification Verification | Log in from a new device → Verify SMS notification sent. | SMS delivered successfully to user phone number. |

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| **TC\_Login\_007** | Logout from Other Devices | Log in on Device A → Log in on Device B. | User on Device A is automatically logged out. |

**Title: Individual Investor - Upgrade to Premium**

| **Test Case ID** | **Scenario** | **Steps** | **Expected Result** |
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| **TC\_Premium\_001** | Successful Upgrade | Select criteria → Upload valid documents → Submit. | Compliance team notified, upload success message shown. |

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| **TC\_Premium\_002** | Missing Criteria Selection | Skip selection of criteria → Submit. | Error: "Please select at least one option to proceed." |

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| **TC\_Premium\_003** | Invalid Document Upload | Upload unsupported file format. | Error: "Invalid file format. Please upload PDF or DOCX." |

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| **TC\_Premium\_004** | Large File Upload | Attempt to upload a file > 5MB. | Error: "File size exceeds limit. Max file size is 5MB." |

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| **TC\_Premium\_005** | Compliance Approval | Submit request → Compliance reviews and approves request. | User notified, relation manager receives request approval status. |

**Title: Approvals Notifications | SMS**

| **Test Case ID** | **Scenario** | **Steps** | **Expected Result** |
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| **TC\_SMS\_001** | Approval Notification | Process loan request → Approve request → Validate SMS notification. | SMS sent with "Loan Approved" message. |

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| **TC\_SMS\_002** | Rejection Notification | Reject loan request with specified reasons → Validate SMS. | SMS sent with rejection reason provided. |

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| **TC\_SMS\_003** | Relation Manager Notification | Reject loan at any stage → Notify relation manager. | Relation manager receives rejection details. |

**Title: Departments Approval**

| **Test Case ID** | **Scenario** | **Steps** | **Expected Result** |
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| **TC\_Dept\_001** | Approving Loan Request | Open loan request → Click "Approve". | Loan marked as approved; timestamp recorded. |

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| **TC\_Dept\_002** | Viewing Approvals | View loan request details → Verify department approvals section. | All approvals with timestamps and staff names are visible. |

**Title: Corporate Investor - Commercial Registration Verification**

| **Test Case ID** | **Scenario** | **Steps** | **Expected Result** |
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| **TC\_Verify\_001** | Valid Registration Number | Enter valid commercial registration → Submit. | Validation successful, user proceeds to the next step. |

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| **TC\_Verify\_002** | Invalid Registration Number | Enter invalid registration → Submit. | Error: "Invalid registration number. Please re-enter." |

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| **TC\_Verify\_003** | Start Date < 2 Years | Submit registration → API indicates company start date is < 2 years. | Notification: "Cannot proceed; company must be older than 2 years." |

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| **TC\_Verify\_004** | Start Date > 2 Years | Submit registration → API confirms start date > 2 years. | User proceeds to the next step. |

**4. Test Runs**

| **Run Name** | **Description** | **Type** |
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| **Functional Test** | Validates functionality against acceptance criteria. | Manual & Automated |

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| **Edge Case Test** | Covers invalid inputs, boundary values, and unexpected flows. | Manual |

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| **Regression Test** | Ensures no impact on existing features after fixes. | Automated |

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| **User Acceptance Test** | Tests system usability and acceptance with end-users. | Manual |