**VirusPartial Test Cases**

**Login/Registration Tests**

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| **Test Author** | | Matthew Blades | | | **Tester** | | Matthew Blades | |
| **Test Scenario Group** | | Registration | | | **Test Case ID** | | 1 | |
| **Test Case Description** | | Test successful Account Creation | | | **Test Priority** | | High | |
| **Pre-Requisite** | | Working Internet + Browser | | | **Post-Requisite** | | Home Screen (Logged In) | |
| Test Execution Steps: | | | | | | | | | |
| **S.No** | **Action** | | **Inputs** | **Expected Output** | | **Actual Output** | **Test Result** | **Test Comments** | |
| 1 | Launch Webapp | | viruspartial.com | Home page (frontMenu.html) | | Home page | Passed |  | |
| 2 | Select “register” button | | N/A | Registration Prompt | | Registration Prompt | Passed |  | |
| 3 | Enter new Account Info | | Username, Email, Password,  Password Confirmation | Home page (login success) | | Home page | Passed |  | |
| 4 | Select “Next” | | N/A | Upload Image Prompt | | Upload Image Prompt | Passed |  | |
| 5 | Upload Image | | Image | Image Displayed where Prompt was | | Image Displayed where Prompt was | Passed |  | |
| 6 | Select “Next” | | N/A | Enter Full Name Prompt | | Enter Full Name Prompt | Passed |  | |
| 7 | Enter Name | | First name and Last Name | Home Screen (Logged In) | | Home Screen (Logged In) | Passed | User is automatically logged in after account creation | |

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| **Test Author** | | Matthew Blades | | | **Tester** | | Matthew Blades | |
| **Test Scenario Group** | | Login | | | **Test Case ID** | | 1 | |
| **Test Case Description** | | Test successful Account Login | | | **Test Priority** | | High | |
| **Pre-Requisite** | | Working Internet, Browser, Viruspartial account | | | **Post-Requisite** | | N/A | |
| Test Execution Steps: | | | | | | | | | |
| **S.No** | **Action** | | **Inputs** | **Expected Output** | | **Actual Output** | **Test Result** | **Test Comments** | |
| 1 | Launch Webapp | | viruspartial.com | Home page (frontMenu.html) | | Home page | Passed |  | |
| 2 | Select “login” button | | N/A | Login Prompt | | Login Prompt | Passed |  | |
| 3 | Enter Correct login info | | Username and Password | Home page (Logged In) | | Home page (Logged In) | Passed | Now has profile picture and Logout button | |

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| **Test Author** | | Matthew Blades | | | **Tester** | | Matthew Blades | |
| **Test Scenario Group** | | Login | | | **Test Case ID** | | 2 | |
| **Test Case Description** | | Test incorrect username/password | | | **Test Priority** | | High | |
| **Pre-Requisite** | | Working Internet, Browser, Viruspartial Account | | | **Post-Requisite** | | N/A | |
| Test Execution Steps: | | | | | | | | | |
| **S.No** | **Action** | | **Inputs** | **Expected Output** | | **Actual Output** | **Test Result** | **Test Comments** | |
| 1 | Launch Webapp | | viruspartial.com | Home page (frontMenu.html) | | Home page | Passed |  | |
| 2 | Select “login” button | | N/A | Login Prompt | | Login Prompt | Passed |  | |
| 3 | Enter Incorrect Login info | | Random username/password | Login Prompt (Error Message) | | Login Prompt(Error Message) | Passed | Reprompts user until correct information entered | |

**Manual Hash Entry Tests**

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| **Test Author** | | Matthew Blades | | | **Tester** | | Matthew Blades | |
| **Test Scenario Group** | | Manual Hash Entering | | | **Test Case ID** | | 1 | |
| **Test Case Description** | | Entering known non-malicious hash | | | **Test Priority** | | High | |
| **Pre-Requisite** | | Working Internet, Browser | | | **Post-Requisite** | | Hash Danger output | |
| Test Execution Steps: | | | | | | | | | |
| **S.No** | **Action** | | **Inputs** | **Expected Output** | | **Actual Output** | **Test Result** | **Test Comments** | |
| 1 | Launch Webapp | | viruspartial.com | Home page (frontMenu.html) | | Home page | Passed |  | |
| 2 | Select “Enter A Hash” button | | N/A | Hash Prompt | | Hash Prompt | Passed |  | |
| 3 | Enter hash of a non-malicious file | | Hash of non-malicious executable | Hash Data page showing 0% Danger | | Hash Data Page showing 0% Danger | Passed | Github Desktop Setup executable used for testing | |

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| **Test Author** | | Matthew Blades | | | **Tester** | | Matthew Blades | |
| **Test Scenario Group** | | Manual Hash Checking | | | **Test Case ID** | | 2 | |
| **Test Case Description** | | Manually entering malicious hash | | | **Test Priority** | | High | |
| **Pre-Requisite** | | Working Internet, Browser | | | **Post-Requisite** | | Hash Danger Output | |
| Test Execution Steps: | | | | | | | | | |
| **S.No** | **Action** | | **Inputs** | **Expected Output** | | **Actual Output** | **Test Result** | **Test Comments** | |
| 1 | Launch Webapp | | viruspartial.com | Home page (frontMenu.html) | | Home page | Passed |  | |
| 2 | Select “Enter A Hash” button | | N/A | Hash Prompt | | Hash Prompt | Passed |  | |
| 3 | Enter hash of a non-malicious file | | Hash of non-malicious executable | Hash Data page showing 0% Danger | | Hash Data Page showing 0% Danger | Passed | Github Desktop Setup executable used for testing | |

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| **Test Author** | | Matthew Blades | | | **Tester** | | Matthew Blades | |
| **Test Scenario Group** | | Manual Hash Checking | | | **Test Case ID** | | 3 | |
| **Test Case Description** | | Manually entering incorrectly formatted hash | | | **Test Priority** | | High | |
| **Pre-Requisite** | | Working Internet, Browser | | | **Post-Requisite** | | N/A | |
| Test Execution Steps: | | | | | | | | | |
| **S.No** | **Action** | | **Inputs** | **Expected Output** | | **Actual Output** | **Test Result** | **Test Comments** | |
| 1 | Launch Webapp | | viruspartial.com | Home page (frontMenu.html) | | Home page | Passed |  | |
| 2 | Select “Enter A Hash” button | | N/A | Hash Prompt | | Hash Prompt | Passed |  | |
| 3 | Enter hash which doesn’t have proper formatting | | non-hex digits, incorrect number of characters | No Matches Found screen (404) | | No Matches found screen (404) | Passed | used the string “123456” and “123gkho” for testing | |

**File Scanning Tests**

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| **Test Author** | | Matthew Blades | | | **Tester** | | Matthew Blades | |
| **Test Scenario Group** | | File Scanning | | | **Test Case ID** | | 1 | |
| **Test Case Description** | | Scanning a non-malicious file | | | **Test Priority** | | High | |
| **Pre-Requisite** | | Working Internet, Browser | | | **Post-Requisite** | | Hash danger output | |
| Test Execution Steps: | | | | | | | | | |
| **S.No** | **Action** | | **Inputs** | **Expected Output** | | **Actual Output** | **Test Result** | **Test Comments** | |
| 1 | Launch Webapp | | viruspartial.com | Home page (frontMenu.html) | | Home page | Passed |  | |
| 2 | Select “Scan a File” button | | N/A | File Scan Prompt | | File Scan Prompt | Passed |  | |
| 3 | Upload file | | Normal executable | 0% Danger Output | | 0% Danger Output | Passed | Passed a windows .dll file and the Github Desktop setup executable | |

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| **Test Author** | | Matthew Blades | | | **Tester** | | Matthew Blades | |
| **Test Scenario Group** | | File Scanning | | | **Test Case ID** | | 2 | |
| **Test Case Description** | | Scanning a malicious file | | | **Test Priority** | | High | |
| **Pre-Requisite** | | Working Internet, Browser | | | **Post-Requisite** | | Hash danger output | |
| Test Execution Steps: | | | | | | | | | |
| **S.No** | **Action** | | **Inputs** | **Expected Output** | | **Actual Output** | **Test Result** | **Test Comments** | |
| 1 | Launch Webapp | | viruspartial.com | Home page (frontMenu.html) | | Home page | Passed |  | |
| 2 | Select “Scan a File” button | | N/A | File Scan Prompt | | File Scan Prompt | Passed |  | |
| 3 | Upload file | | Malicious Executable | Output showing that the file is malicious | | Output showing that the file is malicious | Passed | Passed the bonzibuddy malware executable | |

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| **Test Author** | | Matthew Blades | | | **Tester** | | Matthew Blades | |
| **Test Scenario Group** | | File Scanning | | | **Test Case ID** | | 3 | |
| **Test Case Description** | | Scanning an unsupported filetype | | | **Test Priority** | | High | |
| **Pre-Requisite** | | Working Internet, Browser | | | **Post-Requisite** | | N/A | |
| Test Execution Steps: | | | | | | | | | |
| **S.No** | **Action** | | **Inputs** | **Expected Output** | | **Actual Output** | **Test Result** | **Test Comments** | |
| 1 | Launch Webapp | | viruspartial.com | Home page (frontMenu.html) | | Home page | Passed |  | |
| 2 | Select “Scan a File” button | | N/A | File Scan Prompt | | File Scan Prompt | Passed |  | |
| 3 | Upload file | | Unsupported filetype | No matches found screen | | Internal Server error | Failed | Fixed and passed after fix | |

**URL Testing**

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| **Test Author** | | Matthew Blades | | | **Tester** | | Matthew Blades | |
| **Test Scenario Group** | | URL Testing | | | **Test Case ID** | | 1 | |
| **Test Case Description** | | Scanning a non-malicious download link | | | **Test Priority** | | High | |
| **Pre-Requisite** | | Working Internet, Browser | | | **Post-Requisite** | | N/A | |
| Test Execution Steps: | | | | | | | | | |
| **S.No** | **Action** | | **Inputs** | **Expected Output** | | **Actual Output** | **Test Result** | **Test Comments** | |
| 1 | Launch Webapp | | viruspartial.com | Home page (frontMenu.html) | | Home page | Passed |  | |
| 2 | Select “Scan a Link” button | | N/A | Link input prompt | | Link input prompt | Passed |  | |
| 3 | Paste link and submit | | Nonmalicious executable download link | Output showing 0% danger | | Output showing 0% danger | Passed | Passed the download link for Github Desktop | |

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| **Test Author** | | Matthew Blades | | | **Tester** | | Matthew Blades | |
| **Test Scenario Group** | | URL Testing | | | **Test Case ID** | | 2 | |
| **Test Case Description** | | Scanning a malicious download link | | | **Test Priority** | | High | |
| **Pre-Requisite** | | Working Internet, Browser | | | **Post-Requisite** | | N/A | |
| Test Execution Steps: | | | | | | | | | |
| **S.No** | **Action** | | **Inputs** | **Expected Output** | | **Actual Output** | **Test Result** | **Test Comments** | |
| 1 | Launch Webapp | | viruspartial.com | Home page (frontMenu.html) | | Home page | Passed |  | |
| 2 | Select “Scan a Link” button | | N/A | File Scan Prompt | | File Scan Prompt | Passed |  | |
| 3 | Paste Link and submit | | Download link to malicious file | Output showing hash danger | | Output showing hash danger | Passed | Passed the download link for bonzibuddy executable | |

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| **Test Author** | | Matthew Blades | | | **Tester** | | Matthew Blades | |
| **Test Scenario Group** | | URL Testing | | | **Test Case ID** | | 2 | |
| **Test Case Description** | | Scanning an unsupported download link | | | **Test Priority** | | High | |
| **Pre-Requisite** | | Working Internet, Browser | | | **Post-Requisite** | | N/A | |
| Test Execution Steps: | | | | | | | | | |
| **S.No** | **Action** | | **Inputs** | **Expected Output** | | **Actual Output** | **Test Result** | **Test Comments** | |
| 1 | Launch Webapp | | viruspartial.com | Home page (frontMenu.html) | | Home page | Passed |  | |
| 2 | Select “Scan a Link” button | | N/A | File Scan Prompt | | File Scan Prompt | Passed |  | |
| 3 | Paste Link and submit | | Download link to a nonsupported file | Unable to hash file screen (404) | | Unable to hash file screen (404) | Failed | Initially had an internal server error, fixed after test, tested with .docx download link | |

**Interconnecting Link Tests**

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| **Test Author** | | Matthew Blades | | | **Tester** | | Matthew Blades | |
| **Test Scenario Group** | | Page Links | | | **Test Case ID** | | 1 | |
| **Test Case Description** | | Testing the navigational links between each page | | | **Test Priority** | | High | |
| **Pre-Requisite** | | Working Internet, Browser | | | **Post-Requisite** | | N/A | |
| Test Execution Steps: | | | | | | | | | |
| **S.No** | **Action** | | **Inputs** | **Expected Output** | | **Actual Output** | **Test Result** | **Test Comments** | |
| 1 | Launch Webapp | | viruspartial.com | Home page (frontMenu.html) | | Home page | Passed |  | |
| 2 | Select “Scan a File” button | | N/A | File Scan Prompt | | Hash Prompt | Passed |  | |
| 3 | Upload File | | Executable File | Hash Output info | | Hash Output info | Passed |  | |
| 4 | Select “VirusPartial” button in top-left | | N/A | Home Page | | Home Page | Passed |  | |
| 5 | Select “Enter a Hash” | | N/A | Manual Hash Entry page | | Manual Hash Entry page | Passed |  | |
| 6. | Manually enter hash | | Hash string | Hash Output Data | | Hash Output Data | Passed |  | |
| 7. | Select “VirusPartial” button in top-left | | N/A | Home Page | | Home Page | Passed |  | |

**Summaries**

* Most of our test cases went smoothly, as many of the bugs were ironed out during development. At this stage in development, the fundamental file scan/manual hash entry functions worked as intended, outside of not handling unsupported file types, which was quickly fixed.
* Tests like passing a non/malicious file through the file scanner worked as intended, with the app outputting the danger percentage to the user. This also applied to passing the hashes manually. Both of these had the actual result identically matching the expected result.
* The only defect detected was the application not being able to handle invalid filetypes/URL’s, which was fixed to point to a “Hash not found” screen, as intended. The defect lied in the flask server receiving the unsupported file, then trying to make an API call with it, which resulted in an error. To fix this, we checked that the filetype was known (supported), rather than allowing any filetype.