Use cases: login into account, logout of account, search for parts, create an account

Aliza: create account, log in account

Amy: search for PC Part, Log Out

Value Specification for Search for PC Part:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Input Element** | **Type** | **Value Specifications** | **Valid** | **Invalid** | **Exceptional Cases** |
| PC part Name | String | Length must be between 3 and 40 characters | PC part name meets value specification and is an existing PC part | PC part name does not satisfy value specification or does not exist | * Strings with length 1 or 0, or a very large number, or * Strings with 1 or more special characters other than “-“ |

Test Cases for Search for PC Part:

|  |  |  |
| --- | --- | --- |
| **Test Case** | **PC Part Name** | **Expected Outcome** |
| 1 | Valid | Show Search page with available PC parts |
| 2 | Invalid | Show Error Message |
| 3 | Exceptional | Show Error Message |

Concrete test cases for Search for PC Part:

|  |  |  |
| --- | --- | --- |
| **Test Case** | **PC Part Name** | **Expected Result** |
| 1 | “cpu” | Show Search page with available PC parts |
| 1.a | “B450M-HDV R4.0 AMD B450 AM4 Socket Ryzen” | Show Search page with available PC parts |
| 2 | “cp” | Show Error Message |
| 2.a | “xpu” | Show Error Message |
| 3 | “” | Show Error Message |
| 3.a | “ASUS ROG Strix B850-E Gaming WiFi AMD AM5 B850 ATX Motherboard 16+2+2 Stages, Dynamic OC, Core Flex, …” | Show Error Message |
| 3.b | “Desktop 9000 8000 & 7000 ATX Motherboard” | Show Error Message |

Value Specification for Log Out:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Input Element** | **Type** | **Value Specifications** | **Valid** | **Invalid** | **Exceptional Cases** |
| Log Out Button Clicked | Boolean | User must click the logout button to initiate the logout process | Button is clicked while user is authenticated | Session has already expired, no log out needed  Log out Request is sent from an unauthorized source | * Button is clicked multiple times in rapid succession, causing the value to be null * Request cannot be processed due to network failure or server error |
| Confirmation button clicked | Boolean | User must click the confirm button to confirm the logout process | Button is clicked while user is authenticated and log out button was clicked | Button is clicked when the log-out process was not initiated  Button is clicked after the session has already expired | * Button is clicked multiple times in rapid succession, causing the value to be null * Request cannot be processed due to network failure or server error |

Test Cases for Log Out:

|  |  |  |  |
| --- | --- | --- | --- |
| **Test Case** | **Log Out Button** | **Confirm Button** | **Expected Outcome** |
| 1 | Valid | Valid | Display Login page |
| 2 | Valid | invalid | Show Error Message |
| 3 | Valid | Exceptional | Show Error Message |
| 4 | Invalid | Valid | Show Error Message |
| ~~5~~ | ~~Invalid~~ | ~~Invalid~~ | ~~Show Error Message~~ |
| ~~6~~ | ~~Invalid~~ | ~~Exceptional~~ | ~~Show Error Message~~ |
| 7 | Exceptional | Valid | Show Error Message |
| ~~8~~ | ~~Exceptional~~ | ~~Invalid~~ | ~~Show Error Message~~ |
| ~~9~~ | ~~Exceptional~~ | ~~Exceptional~~ | ~~Show Error Message~~ |

Concrete test cases for Log Out:

|  |  |  |  |
| --- | --- | --- | --- |
| **Test Case** | **Log Out Button** | **Confirm Button** | **Expected Result** |
| 1 | true | true | Display Login Page |
| 2 | true | false | Show Error Message |
| 3 | true | null | Show Error Message |
| 4 | false | true | Show Error Message |
| 7 | null | true | Show Error Message |

Value Specification for Create Account:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Input Element** | **Type** | **Value Specification** | **Valid** | **Invalid** | **Exceptional Cases** |
| Username | String | * Length must be between 8 and 20 characters * Allowed characters: Alphanumeric (a-z, A-Z, 0-9) | Username satisfies value specification and is not used by another user | Username does not satisfy the value specification | Strings with length=0, 1, or a very large number, or Strings with one or more spaces, control characters, or special character. |
| Email | String | * Follows format [username]@[domain].[tld] * Username: Alphanumeric, may contain dots(.), underscores (\_), hyphens (-) * Domain: Alphanumeric, may contain hyphens (-) * TLD: At least 2 characters (e.g., .com, .org) | Email satisfies value specification and is not used by another user | Email does not satisfy the value specification | Strings with length=0, 1, or a very large number, or Strings with one or more spaces, control characters, or special character.  Domain with only numbers (e.g “user@12345.678”) |
| Password | Password | Length must be between 8 and 12 characters, and contain at least one alphabet numeric and special character | Password satisfies value specification on the left | Password does not satisfy the value specification | Password with length=0,1 or a very large number  Passwords containing one or more spaces or control characters |

Test cases for Create Account:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Test case#** | **Username** | **Email** | **Password** | **Expected outcome** |
| 1 | Valid | Valid | Valid | Show account verification successful message |
| 2 | Valid | Valid | Invalid | Show Error Message |
| 3 | Valid | Invalid | Valid |  |
| 4 | Exception | Valid | Invalid | Show Error Message |
| 5 | Valid | Invalid | Exception |  |
| 6 | Invalid | Valid | Invalid |  |
| 7 | Exception | Invalid | Valid | Show Error Message |
| 8 | Valid | Exception | Invalid |  |
| 9 | Exception | Exception | Valid |  |
| 10 | Invalid | Valid | Invalid | Show Error Message |
| 11 | Exception | Exception | Valid |  |
| 12 | Exception | Exception | Invalid | Show Error Message |
| 13 | Valid | Invalid | Valid |  |
| 14 | Invalid | Valid | Valid |  |

Concrete Values for test cases for Create Account:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Test case#** | **Username** | **Email** | **Password** | **Expected outcome** |
| 1 | User12345 | user.name@example.com | P@ssw0rd1! | Show account verification successful message |
| 2 | User12345 | user.name@example.com | password | Show Error Message |
| 4 | NULL | user.name@example.com | password123! | Show Error Message |
| 7 | NULL | user@invalid | P@ssw0rd11! | Show Error Message |
| 10 | User!@# | user.name@example.com | pass123 | Show Error Message |
| 12 | NULL | NULL | pass | Show Error Message |

Value Specification for Log in:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Input Element** | **Type** | **Value Specification** | **Valid** | **Invalid** | **Exceptional Cases** |
| Username | String | * Length must be between 8 and 20 characters   Allowed characters: Alphanumeric (a-z, A-Z, 0-9) | Username satisfies value specification and is not used by another user | Username does not satisfy the value specification | Strings with length=0, 1, or a very large number, or Strings with one or more spaces, control characters, or special character. |
| Password | Password | Length must be between 8 and 12 characters, and contain at least one alphabet numeric and special character | Password satisfies value specification on the left | Password does not satisfy the value specification | Password with length=0,1 or a very large number  Passwords containing one or more spaces or control characters |

Test cases for Log in:

|  |  |  |  |
| --- | --- | --- | --- |
| **Test case#** | **Username** | **Password** | **Expected outcome** |
| 1 | Valid | Valid | Show sign in successful page |
| 2 | Valid | Invalid | Show Error Message |
| 3 | Invalid | Exception |  |
| 4 | Invalid | Valid |  |
| 5 | Exception | Invalid | Show Error Message |
| 6 | Exception | Invalid |  |
| 7 | Invalid | Valid | Show Error Message |
| 8 | Invalid | Exception |  |
| 9 | Exception | Valid |  |
| 10 | Valid | Invalid | Show Error Message |
| 11 | Invalid | Exception | Show Error Message |
| 12 | Invalid | Valid |  |
| 13 | Invalid | Exception | Show Error Message |
| 14 | Exception | Exception |  |

Concrete Values for test cases for Log in:

|  |  |  |  |
| --- | --- | --- | --- |
| **Test case#** | **Username** | **Password** | **Expected outcome** |
| 1 | User12345 | P@ssw0rd! | Show sign in successful page |
| 2 | User12345 | password | Show Error Message |
| 5 | “” | pass123! | Show Error Message |
| 7 | User!@# | P@ssw0rd1! | Show Error Message |
| 10 | User12345 | pass | Show Error Message |
| 11 | U1 | “” | Show Error Message |
| 13 | SuperLongUsernameThatExceedsLimit | “” | Show Error Message |