**Software Test Design Document for Unity Asset Store**

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**1. Document Overview**

This document provides the detailed test design for the Unity Asset Store software development project. It outlines the approach, resources, and schedule for the testing activities. The goal is to ensure that the Unity Asset Store meets its requirements and works as expected.

**2. Test Design Approach**

The test design for the Unity Asset Store will follow a structured approach to ensure comprehensive coverage of all functionalities, performance, security, and usability aspects. The approach includes:

* **Functional Testing**: Validating core operations such as asset browsing, searching, purchasing, and integration.
* **Non-Functional Testing**: Assessing performance under load, security measures, and overall usability.
* **White-box Testing**: Evaluating internal code structures and logic.
* **Regression Testing**: Ensuring that new changes do not adversely affect existing functionalities.
* **User Acceptance Testing**: Verifying that the application meets user expectations and requirements.

**Test Design Process:**

1. **Identify Test Scenarios**: Based on requirements and use cases.
2. **Design Test Cases**: Detailed steps to validate each test scenario.
3. **Review and Approve Test Cases**: By the project team.
4. **Prepare Test Data**: Sample assets, user accounts, configurations.
5. **Execute Tests**: According to the defined schedule.
6. **Log and Track Defects**: Using a defect tracking system.
7. **Analyze Test Results**: Compare expected vs. actual outcomes.
8. **Report and Review**: Test results and metrics.

**3. Test Environment**

**Test Environments:**

* **Staging Environment**: Replica of production for pre-release testing.
* **Production-like Environment**: Simulates real-world conditions for performance testing.
* **Unity Editor Integration Environment**: For testing asset integration with various Unity Editor versions.

**Dependencies:**

* Availability of test assets and user accounts.
* Stable internet connection for testing transactions and downloads.
* Access to necessary testing tools and resources.

**4. Test Data**

Test data will include a mix of synthetic and anonymized real data to simulate various user scenarios. It will cover:

* Different types of assets (free, paid, high-resolution, etc.).
* Various user account types (developer, buyer, admin).
* Diverse purchase flows and configurations.

**Test Data Preparation:**

* Create sample assets with various attributes.
* Generate test user accounts with different roles and permissions.
* Simulate purchase transactions and integration scenarios.

## 5. Test Cases

Test cases will be designed to cover all identified test scenarios, ensuring comprehensive validation of the Unity Asset Store functionalities.

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| --- | --- |
| **Test case name** |  |
| **Test case goal** |  |
| **Data** |  |
| **Preconditions** |  |
| **Writer** |  |
| **Date** |  |
| **Prioritization** |  |

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| --- | --- | --- |
| **Step number:** | **Step:** | **Result** |
| **1** |  |  |

**Test Case ID: 1**

|  |  |
| --- | --- |
| **Test case name** | **Login with valid email address and invalid password** |
| **Test case goal** | Verify that user can add asset to the cart |
| **Data** | Valid email address and invalid password |
| **Preconditions** | A Desktop PC with the url to the unity asset store |
| **Writer** | Bahaa Abu Zalaf |
| **Date** | 09-07-2024 |
| **Prioritization** | 1 |

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| --- | --- | --- |
| **Result** | **Step** | **Step Number** |
| |  | | --- | | Home page is displayed | | |  | | --- | | Navigate to the Unity Asset Store home page | | 1 |
| Menu opened with Sign in button | Click on the account icon top-right | 2 |
| |  | | --- | | Login page is displayed |   With two inputs: Email and password and password and a login button | Click on the "Sign In" button | 3 |
| Text got inserted successfully in the input field | Enter valid username Enter valid username and password into the login form | 4 |
| |  | | --- | | Text got inserted successfully in the input field |  |  | | --- | |  | | Enter invalid password Enter valid username and password into the login form | 5 |
| |  | | --- | | An error message appears saying: ”The email and/or password you entered are incorrect. Please try again.” |  |  | | --- | |  | | |  | | --- | | Click on the "Login" button |  |  | | --- | |  | | 6 |

**Test Case ID: 2**

|  |  |
| --- | --- |
| **Test case name** | **Login with valid email address and valid password** |
| **Test case goal** | Verify that user can add asset to the cart |
| **Data** | Valid email address and Valid password |
| **Preconditions** | A Desktop PC with the url to the unity asset store |
| **Writer** | Bahaa Abu Zalaf |
| **Date** | 09-07-2024 |
| **Prioritization** | 1 |

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| --- | --- | --- |
| **Result** | **Step** | **Step Number** |
| |  | | --- | | Home page is displayed | | |  | | --- | | Navigate to the Unity Asset Store home page | | 1 |
| Menu opened with the Sign in button | Click on the account icon located in the top-right corner. | 2 |
| |  | | --- | | Login page is displayed |   With two inputs: Email and password and a login button | Click on the "Sign In" button | 3 |
| Text got inserted successfully in the input fields | Enter valid username and password into the login formEnter valid username and password into the login form | 4 |
| |  | | --- | | User is successfully logged in |  |  | | --- | |  | | Click on the "Login" button   |  | | --- | |  | | 5 |
| |  | | --- | | Menu opened with few options |  |  | | --- | |  | | |  | | --- | | Click on the account icon located in the top-right corner. |  |  | | --- | |  | | 6 |
| There is a Sign out button | Verify that there is an option to Sign out | 7 |

**Test Case ID: 3**

|  |  |
| --- | --- |
| **Test case name** | **Add To Cart** |
| **Test case goal** | Verify that user can add asset to the cart |
| **Data** | Asset |
| **Preconditions** | A Desktop PC with the url to the unity asset store and logged in user with a paid asset |
| **Writer** | Bahaa Abu Zalaf |
| **Date** | 09-07-2024 |
| **Prioritization** | 1 |

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| --- | --- | --- |
| **Result** | **Step** | **Step Number** |
| |  | | --- | | Home page is displayed |  |  | | --- | |  | | |  | | --- | | Navigate to the Unity Asset Store home page |  |  | | --- | |  | | 1 |
| Menu opened with Sign in button | Click on the account icon top-right | 2 |
| |  | | --- | | Login page is displayed |   With two inputs: Email and password and a login button | Click on the "Sign In" button | 3 |
| Text got inserted successfully in the input field | Enter valid username Enter valid username and password into the login form | 4 |
| |  | | --- | | Text got inserted successfully in the input field |  |  | | --- | |  | | Enter valid password Enter valid username and password into the login form | 5 |
| |  | | --- | | User is successfully logged in |  |  | | --- | |  | | |  | | --- | | Click on the "Login" button |  |  | | --- | |  | | 6 |
| Asset details page is displayed | Click on the desired asset | 7 |
| Asset is added to the cart and the cart popup window show in the top-right, with two options: “View cart” and “Checkout”. | Click on the "Add to Cart" icon button. | 8 |
| The Cart Page is displayed with the added asset. | Click on the “View Cart” button. | 9 |
| Asset is listed in the cart | |  | | --- | | Verify that the asset is present in the cart. |  |  | | --- | |  | | 10 |

**Test Case ID: 4**

|  |  |
| --- | --- |
| **Test case name** | **Verify Related Keywords for Selected Category** |
| **Test case goal** | To ensure that the related keywords section on the asset details page contains the chosen sub-category after selecting it from the section of the Unity Asset Store. |
| **Data** | |  | | --- | | Sub-categories to test: Dungeons, Fantasy, Historic, Industrial, Landscapes, Roadways, Sci-Fi, Ur A Desktop PC with the url to the unity asset store ban |  |  | | --- | |  | |
| **Preconditions** | A Desktop PC with the url to the unity asset store |
| **Writer** | Bahaa Abu Zalaf |
| **Date** | 09-07-2024 |
| **Prioritization** | 3 |

|  |  |  |
| --- | --- | --- |
| **Result** | **Step** | **Step Number** |
| |  | | --- | | Home page is displayed |  |  | | --- | |  | | |  | | --- | | Navigate to the Unity Asset Store home page |  |  | | --- | |  | | 1 |
| Menu opened with Sign in button | Click on the account icon top-right | 2 |
| |  | | --- | | Login page is displayed |   With two inputs: Email and password and a login button | Click on the "Sign In" button | 3 |
| Text got inserted successfully in the input field | Enter valid username Enter valid username and password into the login form | 4 |
| |  | | --- | | Text got inserted successfully in the input field |  |  | | --- | |  | | Enter valid password Enter valid username and password into the login form | 5 |
| |  | | --- | | User is successfully logged in |  |  | | --- | |  | | |  | | --- | | Click on the "Login" button |  |  | | --- | |  | | 6 |
| Random category name is saved | Get random category name | 7 |
| Assets related to the sub-category are displayed. | Click on a sub-category by the random name | 8 |
| Asset details page is displayed. | Click on an asset from the displayed results. | 9 |
| The asset path is displayed and it contains the chosen category | Check the asset path | 10 |
| Chosen sub-category is present in the asset path | Verify that the chosen sub-category is listed in the path section. | 11 |

**Test Case ID: 5**

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| --- | --- |
| **Test case name** | **Add a free asset to the “my assets”** |
| **Test case goal** | To verify that a free asset can be successfully added to "my assets" in the Unity Asset Store. |
| **Data** | Free asset to be added |
| **Preconditions** | A Desktop PC with the url to the unity asset store and logged in user with a paid asset |
| **Writer** | Bahaa Abu Zalaf |
| **Date** | 09-07-2024 |
| **Prioritization** | 1 |

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| --- | --- | --- |
| **Result** | **Step** | **Step Number** |
| Home page is displayed | Navigate to the Unity Asset Store home page | 1 |
| Menu opened with Sign in button | Click on the account icon top-right | 2 |
| |  | | --- | | Login page is displayed |   With two inputs: Email and password and a login button | Click on the "Sign In" button | 3 |
| Text got inserted successfully in the input field | Enter valid username Enter valid username and password into the login form | 4 |
| |  | | --- | | Text got inserted successfully in the input field |  |  | | --- | |  | | Enter valid password Enter valid username and password into the login form | 5 |
| |  | | --- | | User is successfully logged in |  |  | | --- | |  | | |  | | --- | | Click on the "Login" button |  |  | | --- | |  | | 6 |
| Free assets are displayed. | Click on free asstes in the bottm-left | 7 |
| Asset details page is displayed with the “Add to My Assets” button | Click on the asset | 8 |
| The asset name is saved | Get the asset name | 9 |
| A pop-up appears asking the user to Acceot or cancel to the terms of service. | Click on "Add to My Assets" button | 10 |
| A pop-up appears at the top saying: “Added to My Assets”. | Click on the “Accept” button | 11 |
| The page of my assets get displayed and all the assets to that user are there. | Navigate to “My Assets” by cliking on the my assets tab at the top | 12 |
| The asset’s title is there with the option to “Open in Unity”. | Validate that the asset you added is there by its title | 13 |

**Test Case ID: 6**

|  |  |
| --- | --- |
| **Test case name** | **Assets Count Changes After Selecting From Dropdown** |
| **Test case goal** | Verify that the number of assets displayed on the page changes when a different value is selected from the dropdown. |
| **Data** | Valid email address, valid password, dropdown value |
| **Preconditions** | A Desktop PC with the URL to the Unity Asset Store and a logged-in user. |
| **Writer** | Bahaa Abu Zalaf |
| **Date** | 09-07-2024 |
| **Prioritization** | 2 |

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| --- | --- | --- |
| **Result** | **Step** | **Step Number** |
| Home page is displayed | Navigate to the Unity Asset Store home page | 1 |
| Menu opened with Sign in button | Click on the account icon top-right | 2 |
| |  | | --- | | Login page is displayed |   With two inputs: Email and password and a login button | Click on the "Sign In" button | 3 |
| Text got inserted successfully in the input field | Enter valid username Enter valid username and password into the login form | 4 |
| |  | | --- | | Text got inserted successfully in the input field |  |  | | --- | |  | | Enter valid password Enter valid username and password into the login form | 5 |
| |  | | --- | | User is successfully logged in |  |  | | --- | |  | | |  | | --- | | Click on the "Login" button |  |  | | --- | |  | | 6 |
| Current number of assets is recorded | Get the current number of assets displayed | 7 |
| Number of assets displayed changes after selection | Click on the "View Results" dropdown button | 8 |
| A pop-up shows saying: “Saved to Favorites” | Select the value desired from the dropdown | 9 |
| Number of assets displayed is different from the initial count | Verify that the number of assets displayed has changed | 10 |

**Test Case ID: 7**

|  |  |
| --- | --- |
| **Test case name** | **Assets Count Matches Chosen Option After Selecting From Dropdown** |
| **Test case goal** | Verify that the number of assets displayed on the page matches the selected value from the dropdown. |
| **Data** | Valid email address, valid password, dropdown value |
| **Preconditions** | A Desktop PC with the URL to the Unity Asset Store and a logged-in user. |
| **Writer** | Bahaa Abu Zalaf |
| **Date** | 09-07-2024 |
| **Prioritization** | 2 |

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| --- | --- | --- |
| **Result** | **Step** | **Step Number** |
| Home page is displayed | Navigate to the Unity Asset Store home page | 1 |
| Menu opened with Sign in button | Click on the account icon top-right | 2 |
| |  | | --- | | Login page is displayed |   With two inputs: Email and password and a login button | Click on the "Sign In" button | 3 |
| Text got inserted successfully in the input field | Enter valid username Enter valid username and password into the login form | 4 |
| |  | | --- | | Text got inserted successfully in the input field |  |  | | --- | |  | | Enter valid password Enter valid username and password into the login form | 5 |
| |  | | --- | | User is successfully logged in |  |  | | --- | |  | | |  | | --- | | Click on the "Login" button |  |  | | --- | |  | | 6 |
| Current number of assets is recorded | Get the current number of assets displayed | 7 |
| Number of assets displayed changes after selection | Click on the "View Results" dropdown button | 8 |
| A pop-up shows saying: “Saved to Favorites” | Select the value desired from the dropdown | 9 |
| Number of assets displayed is equal to the chosen option | Verify that the number of assets displayed matches the chosen option | 10 |

**Test Case ID: 8**

|  |  |
| --- | --- |
| **Test case name** | Assets Displayed Within Specified Price Range |
| **Test case goal** | To ensure that assets displayed fall within the specified minimum and maximum price range. |
| **Data** | Valid email address, valid password, minimum price, maximum price |
| **Preconditions** | A Desktop PC with the URL to the Unity Asset Store and a logged-in user. |
| **Writer** | Bahaa Abu Zalaf |
| **Date** | 09-07-2024 |
| **Prioritization** | 1 |

|  |  |  |
| --- | --- | --- |
| **Result** | **Step** | **Step Number** |
| Home page is displayed | Navigate to the Unity Asset Store home page | 1 |
| Menu opened with Sign in button | Click on the account icon top-right | 2 |
| |  | | --- | | Login page is displayed |   With two inputs: Email and password and a login button | Click on the "Sign In" button | 3 |
| Text got inserted successfully in the input field | Enter valid username Enter valid username and password into the login form | 4 |
| |  | | --- | | Text got inserted successfully in the input field |  |  | | --- | |  | | Enter valid password Enter valid username and password into the login form | 5 |
| |  | | --- | | User is successfully logged in |  |  | | --- | |  | | |  | | --- | | Click on the "Login" button |  |  | | --- | |  | | 6 |
| Pricing button is opened with few 2 input for the min and max price and a checkbox for the free assets | Click on the "Pricing" button | 7 |
| Minimum and maximum prices are set | Fill in the minimum price and maximum price | 8 |
| Assets are sorted by price within the specified range | Process and sort asset prices within the specified range | 9 |
| Assets fall within the specified price range | Verify that the minimum price is greater than or equal to amount entered in the minimum and the maximum price is less than or equal to the amount entered in the maximum | 10 |

**Test Case ID: 9**

|  |  |
| --- | --- |
| **Test case name** | Bio Edit Functionality |
| **Test case goal** | To ensure that the user can successfully edit and save their bio in the personal settings. |
| **Data** | Valid email address, valid password, new bio text |
| **Preconditions** | A Desktop PC with the URL to the Unity Asset Store and a logged-in user. |
| **Writer** | Bahaa Abu Zalaf |
| **Date** | 09-07-2024 |
| **Prioritization** | 1 |

|  |  |  |
| --- | --- | --- |
| **Result** | **Step** | **Step Number** |
| Home page is displayed | Navigate to the Unity Asset Store home page | 1 |
| Menu opened with Sign in button | Click on the account icon top-right | 2 |
| |  | | --- | | Login page is displayed |   With two inputs: Email and password and a login button | Click on the "Sign In" button | 3 |
| Text got inserted successfully in the input field | Enter valid username Enter valid username and password into the login form | 4 |
| |  | | --- | | Text got inserted successfully in the input field |  |  | | --- | |  | | Enter valid password Enter valid username and password into the login form | 5 |
| |  | | --- | | User is successfully logged in |  |  | | --- | |  | | |  | | --- | | Click on the "Login" button |  |  | | --- | |  | | 6 |
| Account button is clicked | Click on the "Account" button | 7 |
| Personal settings page is displayed | Click on the "Personal Settings" button | 8 |
| Edit bio button is clicked and a popup displayed with input to to insert the text there with a accept and cancel buttons | Click on the "Edit Bio" button at the mid-right | 9 |
| Input is filled with the new bio text | Enter new bio text in the input | 10 |
| Bio text is updated | Click Save | 11 |
| Bio text is successfully saved and displayed | Verify that the new bio text is displayed correctly on the personal settings page | 12 |

**Test Case ID: 10**

|  |  |
| --- | --- |
| **Test case name** | **Bio Edit exceeding the character limit** |
| **Test case goal** | To ensure that the bio edit functionality properly handles text exceeding the character limit. |
| **Data** | Valid email address, valid password, bio text exceeding the character limit |
| **Preconditions** | A Desktop PC with the URL to the Unity Asset Store and a logged-in user. |
| **Writer** | Bahaa Abu Zalaf |
| **Date** | 09-07-2024 |
| **Prioritization** | 1 |

|  |  |  |
| --- | --- | --- |
| **Result** | **Step** | **Step Number** |
| Home page is displayed | Navigate to the Unity Asset Store home page | 1 |
| Menu opened with Sign in button | Click on the account icon top-right | 2 |
| |  | | --- | | Login page is displayed |   With two inputs: Email and password and a login button | Click on the "Sign In" button | 3 |
| Text got inserted successfully in the input field | Enter valid username Enter valid username and password into the login form | 4 |
| |  | | --- | | Text got inserted successfully in the input field |  |  | | --- | |  | | Enter valid password Enter valid username and password into the login form | 5 |
| |  | | --- | | User is successfully logged in |  |  | | --- | |  | | |  | | --- | | Click on the "Login" button |  |  | | --- | |  | | 6 |
| Account button is clicked | Click on the "Account" button | 7 |
| Personal settings page is displayed | Click on the "Personal Settings" button | 8 |
| Edit bio button is clicked and a popup displayed with input to to insert the text there with a accept and cancel buttons | Click on the "Edit Bio" button at the mid-right | 9 |
| Input is filled with the bio text not exceeding the character limit | enter text exceeding the character limit | 10 |
| Bio text is updated | Click Save | 11 |
| Texts length are not equal | Verify that the new bio text is not equal to the original text | 12 |