

Table Of Contents

Unit Testing	5
Integration Level Testing	30
Home Page V.1.0	31
Sign-up Page V.1.0	31
Sign-up with Google V.1.0	31
Sign-up with Facebook V.1.0	31
Login V.1.0	32
Forgot Password Page V.1.0	32
Game Store Page V.1.0	32
Library Page V.1.0	33
News Page V.1.0	33
Payment Page V.1.0	33
Help Page V.1.0	33
User Info & Sales Report Page V.1.0	34
Admin Game Store V.1.0	34
Admin News Page V.1.0	34
Product Details Page V.1.0	35
System Level Testing	35
1. Sign-up and Login	35
1. Buy and Download Game	37
Non-Functional Testing	39
Performance Testing	39
1. Load Testing	39
Response Time	40
Response Time Load Testing	40
Response Time Stress Testing	40
Throughput	40
Throughput Load Testing	40
Throughput Stress Testing	41
Utilization	41
Utilization Load Testing	41
Utilization Stress Testing	41

Scalability	41
Scalability Load Testing.....	41
Scalability Stress Testing.....	41
Capacity	41
Capacity Load Testing.....	41
Capacity Stress Testing.....	42
Availability	42
Availability Load Testing.....	42
Availability Stress Testing.....	42
Reliability	42
Reliability Load Testing.....	42
Reliability Stress Testing.....	42
Recoverability	42
Recoverability Load Testing.....	42
Recoverability Stress Testing.....	43
Recoverability	43
Recoverability Load Testing.....	43
Recoverability Stress Testing.....	43
Serviceability.....	43
Security	43
Regulatory.....	44
Manageability.....	44
Environmental.....	44
Data Integrity.....	44
Useability	44
Interoperability	45

Table Of Figures

Figure 1 Home Page	5
Figure 2 Sign-up	6
Figure 3 Login Page	9
Figure 4 Sign-Up page.....	11
Figure 5 Google Signup.....	13
Figure 6 Facebook Signup	15
Figure 7 Forgot Password	16
Figure 8 User Game Store	18
Figure 9 Download Game	19
Figure 10 News Page	21
Figure 11 Payment Page	22
Figure 12 Get Help	25
Figure 13 User info and Sales report Page	26
Figure 14 Admin Game Store and Add Game.....	27
Figure 15 Add News	29

Testing Document

Unit Testing



Figure 1 Home Page

Test Case: Logo V.1.0

Test Data	Expected Result	Actual Result	Pass/Fail
User clicked on Logo.	Page Should jump to Home Page.	Page has jumped to the Home Page.	Pass

Test Case: Sign-Up V.1.0

Test Data	Expected Result	Actual Result	Pass/Fail
User clicked on Sign-Up Button.	Page Should jump to Sign-Up Page.	Page has jumped to the Sign-Up Page.	Pass

Test Case: Login V.1.0

Test Data	Expected Result	Actual Result	Pass/Fail
User clicked on Login Button.	Page Should jump to Login Page.	Page has jumped to the Login Page.	Pass

Test Case: Sign-Up through Google V.1.0

Test Data	Expected Result	Actual Result	Pass/Fail
User clicked on Sign-Up through Google button.	Page Should jump to Google Sign-Up Page.	Page has jumped to the Google Sign-Up Page.	Pass

Test Case: Sign-Up through Facebook V.1.0

Test Data	Expected Result	Actual Result	Pass/Fail
User clicked on Sign-Up through Facebook button.	Page Should jump to Facebook Sign-Up Page.	Page has jumped to the Facebook Sign-Up Page.	Pass



Figure 2 Sign-up

Rules:

1. Username should contain only Alphabet characters.
2. Email should be in proper format i.e (sheri@gmail.com).
3. Password should contain atleast 8 characters, special characters, numeric values or alphabets.
4. Age should be in format (dd/mm/yyyy).
5. Already registered account cannot be created again.

Test Case: Logo V.1.0

Test Data	Expected Result	Actual Result	Pass/Fail
User clicked on Logo.	Page Should jump to Home Page.	Page has jumped to the Home Page.	Pass

Test Case: Username V.1.0

Test Data	Expected Result	Actual Result	Pass/Fail
Sheharbano	Should be Accepted.	Username has been Accepted.	Pass
123sheri	Should be Rejected.	Username has been rejected.	Pass
Sheharbano_%#	Should be Rejected.	Username has been rejected.	Pass
123%#.	Should be Rejected.	Username has been Rejected.	Pass

Test Case: Password V.1.0

Test Data	Expected Result	Actual Result	Pass/Fail
userpass	Should be Rejected.	Password has been Rejected.	Pass
Sheharbano&_123	Should be Accepted.	Password has been Accepted.	Pass
Sheri1.	Should be Rejected.	Password has been Rejected.	Pass
&*\${#####@	Should be Rejected.	Password has been Rejected.	Pass
123sheri%\$@	Should be Accepted.	Password has been Accepted.	Pass
123456789	Should be Rejected.	Password has been Rejected.	Pass

Test Case: Email V.1.0

Test Data	Expected Result	Actual Result	Pass/Fail
sheri@gmail.com	Should be Accepted.	Has been Rejected.	Pass
sheri@.com	Should be Rejected.	Has been rejected.	Pass
@sheri.com	Should be Rejected.	Has been rejected.	Pass
sheri@pk.com	Should be Rejected.	Has been Rejected.	Pass
sheri@gmail	Should be Rejected.	Has been Rejected.	Pass
sheri@gmaiL	Should be Rejected.	Has been Rejected.	Pass

Test Case: Age V.1.0

Test Data	Expected Result	Actual Result	Pass/Fail
12/04/2000	Should be Accepted.	Has been Rejected.	Pass
12/31/20	Should be Rejected.	Has been Rejected.	Pass
2000/12/03	Should be rejected.	Has been Rejected.	Pass
12/4/2005	Should be Accepted.	Has been Accepted.	Pass
12/2000/05	Should be Rejected.	Has been Rejected.	Pass

Test Case: Sign-Up Button V.1.0

Test Data	Expected Result	Actual Result	Pass/Fail
User clicked the Sign-Up button.	User Account should be Created.	User account has been Created.	Pass

Test Case: Help button V.1.0

Test Data	Expected Result	Actual Result	Pass/Fail
User clicked on Help button.	Page Should jump to Help Page.	Page has jumped to the Help Page.	Pass

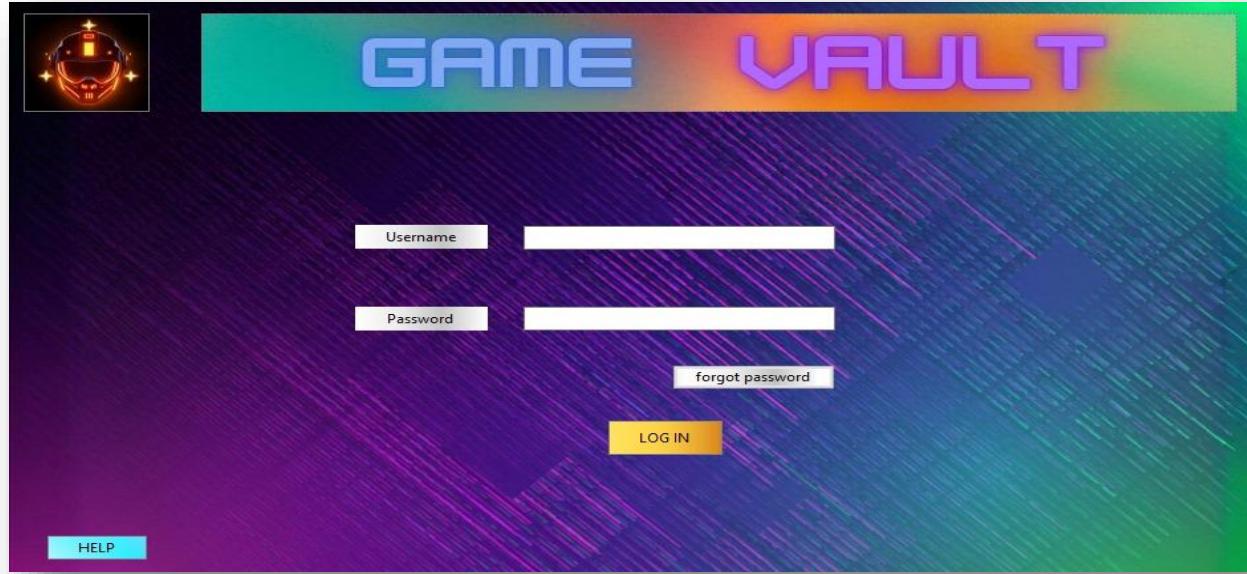


Figure 3 Login Page

Rules:

1. Username should contain only Alphabet characters.
2. Password should contain atleast 8 characters, special characters, numeric values or alphabets.
3. Username and password must be same as entered at sign-up time.

Test Case: Logo V.1.0

Test Data	Expected Result	Actual Result	Pass/Fail
User clicked on Logo.	Page Should jump to Home Page.	Page has jumped to the Home Page.	Pass

Test Case: User Name V.1.0

Test Data	Expected Result	Actual Result	Pass/Fail
Sheharbano	Should be Accepted.	Username has been Accepted.	Pass
123sheri	Should be Rejected.	Username has been rejected.	Pass
Sheharbano_%#	Should be Rejected.	Username has been rejected.	Pass
123&#.	Should be Rejected.	Username has been Rejected.	Pass

Test Case: Password V.1.0

Test Data	Expected Result	Actual Result	Pass/Fail
userpass	Should be Rejected.	Password has been Rejected.	Pass
Sheharbano&_123	Should be Accepted.	Password has been Accepted.	Pass
Sheri1.	Should be Rejected.	Password has been Rejected.	Pass
&*\${#####@	Should be Rejected.	Password has been Rejected.	Pass
123sherি%\$@	Should be Accepted.	Password has been Accepted.	Pass
123456789	Should be Rejected.	Password has been Rejected.	Pass

Test Case: Login Button Validation V.1.0

Test Data	Expected Result	Actual Result	Pass/Fail
User clicked Login button.	Account should be logged-in if user entered same username and password.	Account has been logged-in with correct credentials.	Pass

Test Case: Forgot Password Button V.1.0

Test Data	Expected Result	Actual Result	Pass/Fail
User clicks "Forgot Password?"	Should redirect to the Forgot Password page.	Redirected to the Forgot Password page.	Pass

Test Case: Help Button V.1.0

Test Data	Expected Result	Actual Result	Pass/Fail
User clicks the Help button	Should redirect to the Help/Assistance page.	Redirected to the Help/Assistance page.	Pass



Figure 4 Sign-Up page

Rules:

1. Username should contain only Alphabet characters.
2. Email should be in proper format i.e (sheri@gmail.com).
3. Password should contain atleast 8 characters, special characters, numeric values or alphabets.
4. Age should be in format (dd/mm/yyyy).

Test Case: Logo V.1.0

Test Data	Expected Result	Actual Result	Pass/Fail
User clicked on Logo.	Page Should jump to Home Page.	Page has jumped to the Home Page.	Pass

Test Case: Username V.1.0

Test Data	Expected Result	Actual Result	Pass/Fail
Sheharbano	Should be Accepted.	Username has been Accepted.	Pass
123sheri	Should be Rejected.	Username has been rejected.	Pass

GAME VAULT

Sheharbano_%#	Should be Rejected.	Username has been rejected.	Pass
123&#.	Should be Rejected.	Username has been Rejected.	Pass

Test Case: Password V.1.0

Test Data	Expected Result	Actual Result	Pass/Fail
userpass	Should be Rejected.	Password has been Rejected.	Pass
Sheharbano&_123	Should be Accepted.	Password has been Accepted.	Pass
Sheri1.	Should be Rejected.	Password has been Rejected.	Pass
&*\$\$\$\$@	Should be Rejected.	Password has been Rejected.	Pass
123sherি%\$@	Should be Accepted.	Password has been Accepted.	Pass
123456789	Should be Rejected.	Password has been Rejected.	Pass

Test Case: Email V.1.0

Test Data	Expected Result	Actual Result	Pass/Fail
sheri@gmail.com	Should be Accepted.	Has been Rejected.	Pass
sheri@.com	Should be Rejected.	Has been rejected.	Pass
@sheri.com	Should be Rejected.	Has been rejected.	Pass
sheri@pk.com	Should be Rejected.	Has been Rejected.	Pass
sheri@gmaiL	Should be Rejected.	Has been Rejected.	Pass
sheri@gmaiL	Should be Rejected.	Has been Rejected.	Pass

Test Case: Age V.1.0

Test Data	Expected Result	Actual Result	Pass/Fail
12/04/2000	Should be Accepted.	Has been Rejected.	Pass
12/31/20	Should be Rejected.	Has been Rejected.	Pass
2000/12/03	Should be rejected.	Has been Rejected.	Pass
12/4/2005	Should be Accepted.	Has been Accepted.	Pass
12/2000/05	Should be Rejected.	Has been Rejected.	Pass

Test Case: Help button V.1.0

Test Data	Expected Result	Actual Result	Pass/Fail

User clicked on Help button.	Page Should jump to Help Page.	Page has jumped to the Help Page.	Pass
------------------------------	--------------------------------	-----------------------------------	------

Test Case: Sign-Up Button V.1.0

Test Data	Expected Result	Actual Result	Pass/Fail
User clicked the Sign-Up button.	User Account should be Created.	User account has been Created.	Pass



Figure 5 Google Signup

Rules:

1. Username should contain only Alphabet characters.
2. Email should be in proper format i.e ([sherি@gmail.com](mailto:sheri@gmail.com)).
3. Password should contain atleast 8 characters, special characters, numeric values or alphabets.
4. Age should be in format (dd/mm/yyyy).

Test Case: Logo V.1.0

GAME VAULT

Test Data	Expected Result	Actual Result	Pass/Fail
User clicked on Logo.	Page Should jump to Home Page.	Page has jumped to the Home Page.	Pass

Test Case: Username V.1.0

Test Data	Expected Result	Actual Result	Pass/Fail
Sheharbano	Should be Accepted.	Username has been Accepted.	Pass
123sheri	Should be Rejected.	Username has been rejected.	Pass
Sheharbano_%#	Should be Rejected.	Username has been rejected.	Pass
123&#.	Should be Rejected.	Username has been Rejected.	Pass

Test Case: Password V.1.0

Test Data	Expected Result	Actual Result	Pass/Fail
userpass	Should be Rejected.	Password has been Rejected.	Pass
Sheharbano&_123	Should be Accepted.	Password has been Accepted.	Pass
Sheri1.	Should be Rejected.	Password has been Rejected.	Pass
&*\${#####@	Should be Rejected.	Password has been Rejected.	Pass
123sheri%\$@	Should be Accepted.	Password has been Accepted.	Pass
123456789	Should be Rejected.	Password has been Rejected.	Pass

Test Case: Email V.1.0

Test Data	Expected Result	Actual Result	Pass/Fail
sher@gmail.com	Should be Accepted.	Has been Rejected.	Pass
sher@.com	Should be Rejected.	Has been rejected.	Pass
@sher.com	Should be Rejected.	Has been rejected.	Pass
sher@pk.com	Should be Rejected.	Has been Rejected.	Pass
sher@gmail	Should be Rejected.	Has been Rejected.	Pass
sher@gmaiL	Should be Rejected.	Has been Rejected.	Pass

Test Case: Age V.1.0

Test Data	Expected Result	Actual Result	Pass/Fail
12/04/2000	Should be Accepted.	Has been Rejected.	Pass
12/31/20	Should be Rejected.	Has been Rejected.	Pass
2000/12/03	Should be rejected.	Has been Rejected.	Pass
12/4/2005	Should be Accepted.	Has been Accepted.	Pass
12/2000/05	Should be Rejected.	Has been Rejected.	Pass

Test Case: Sign-Up Button V.1.0

Test Data	Expected Result	Actual Result	Pass/Fail
User clicked the Sign-Up button.	User Account should be Created.	User account has been Created.	Pass

Test Case: Help button V.1.0

Test Data	Expected Result	Actual Result	Pass/Fail
User clicked on Help button.	Page Should jump to Help Page.	Page has jumped to the Help Page.	Pass



Figure 6 Facebook Signup

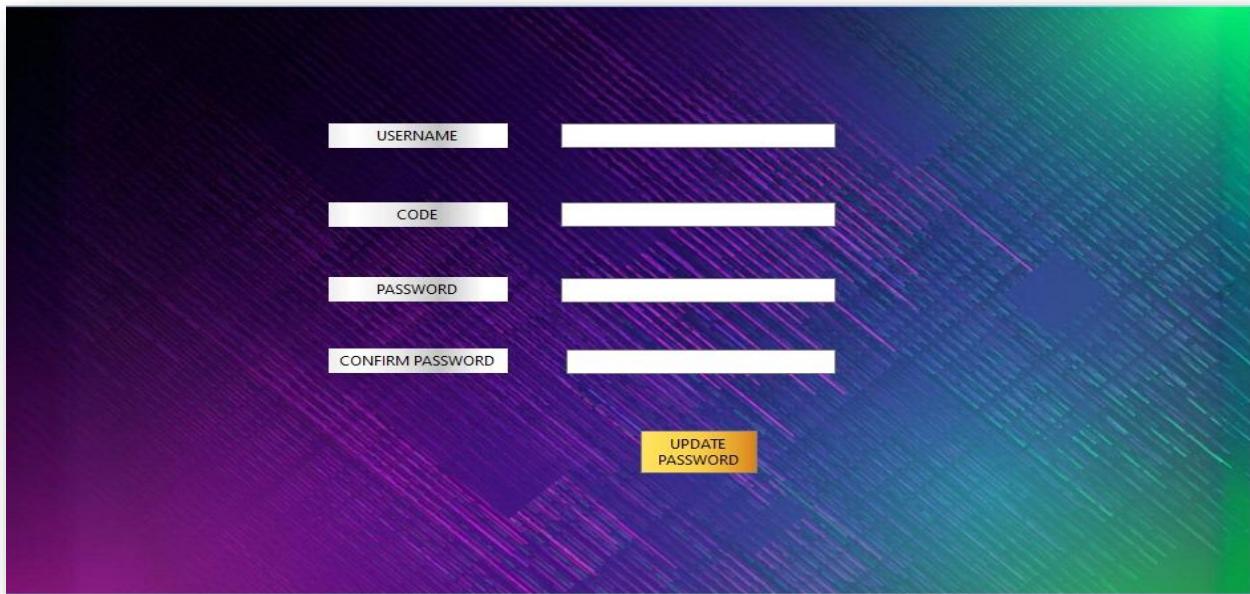


Figure 7 Forgot Password

Rules:

1. User should enter the same code that is sent to his email.
2. New Password should contain atleast 8 characters, special characters, numeric values or alphabets.
3. Code should contain at least 4 digits and must be numeric.

Test Case: Logo V.1.0

Test Data	Expected Result	Actual Result	Pass/Fail
User clicked on Logo.	Page Should jump to Home Page.	Page has jumped to the Home Page.	Pass

Test Case: Verification Code Validation V.1.0

Test Data	Expected Result	Actual Result	Pass/Fail
123456	Should be Accepted (matches the sent code).	Code has been Accepted.	Pass
abcdef	Should be Rejected (code must be numeric).	Code has been Rejected.	Pass

123	Should be Rejected (code length is insufficient).	Code has been Rejected.	Pass
654321	Should be Accepted (matches the sent code).	Code has been Accepted.	Pass
12a34b	Should be Rejected (contains invalid characters).	Code has been Rejected.	Pass

Test Case: New Password Validation V.1.0

Test Data	Expected Result	Actual Result	Pass/Fail
userpass	Should be Rejected.	Password has been Rejected.	Pass
Sheharbano&_123	Should be Accepted.	Password has been Accepted.	Pass
Sheri1.	Should be Rejected.	Password has been Rejected.	Pass
&*\${#####@	Should be Rejected.	Password has been Rejected.	Pass
123sherি%\$@	Should be Accepted.	Password has been Accepted.	Pass
123456789	Should be Rejected.	Password has been Rejected.	Pass

Test Case: Confirm Password Validation V.1.0

Test Data	Expected Result	Actual Result	Pass/Fail
userpass	Should be Rejected.	Password has been Rejected.	Pass
Sheharbano&_123	Should be Accepted (if matches with new password).	Password has been Accepted.	Pass
Sheri1.	Should be Rejected.	Password has been Rejected.	Pass
&*\${#####@	Should be Rejected.	Password has been Rejected.	Pass
123sherি%\$@	Should be Accepted (if matches with new password).	Password has been Accepted.	Pass
123456789	Should be Rejected.	Password has been Rejected.	Pass

Test case: Update Button V.1.0

Test Data	Expected Result	Actual Result	Pass/Fail
User Clicked the Update button.	Password should be changed and page should jump to Login Page.	As Expected.	Pass

Test Case: Help button V.1.0

Test Data	Expected Result	Actual Result	Pass/Fail
User clicked on Help button.	Page Should jump to Help Page.	Page has jumped to the Help Page.	Pass

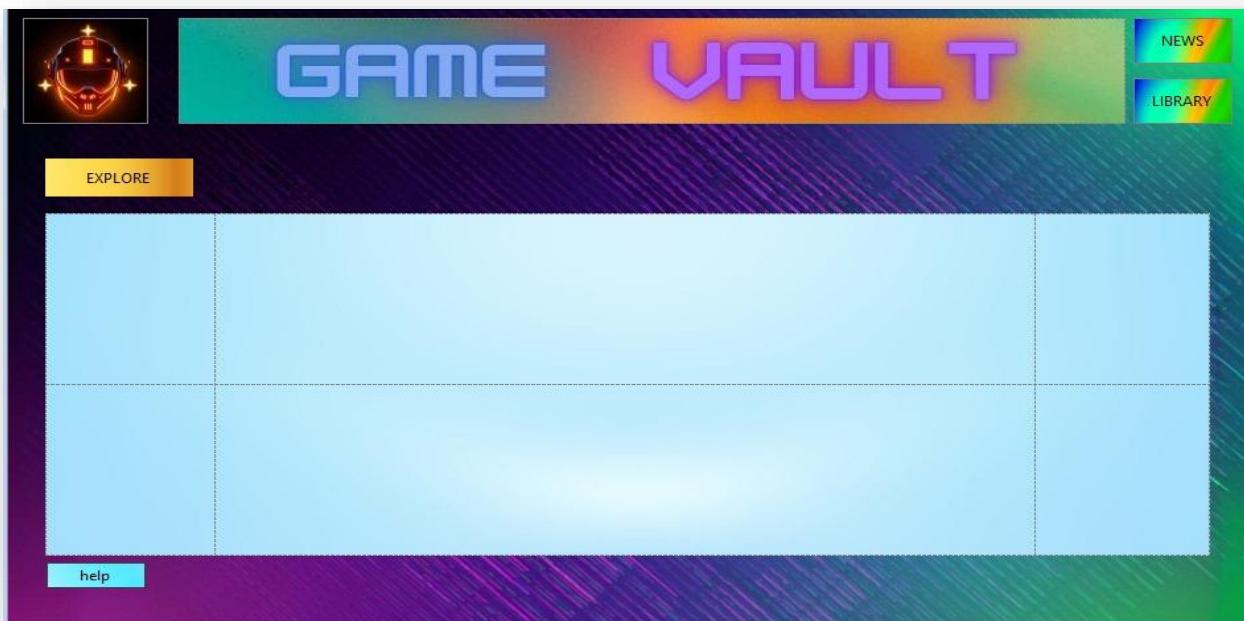


Figure 8 User Game Store

Test Case: Logo V.1.0

Test Data	Expected Result	Actual Result	Pass/Fail
User clicked on Logo.	Page Should jump to Home Page.	Page has jumped to the Home Page.	Pass

Test Case: Help button V.1.0

Test Data	Expected Result	Actual Result	Pass/Fail
User clicked on Help button.	Page Should jump to Help Page.	Page has jumped to the Help Page.	Pass

Test Case: Menu Navigation V.1.0

Test Data	Expected Result	Actual Result	Pass/Fail
User clicks on "Game Store."	Should navigate to the Game Store page.	User is navigated to the Game Store page.	Pass
User clicks on "User Library."	Should navigate to the User Library page.	User is navigated to the User Library page.	Pass
User clicks on "News Page."	Should navigate to the News page.	User is navigated to the News page.	Pass

Test Case: Buy Button V.1.0

Test Data	Expected Result	Actual Result	Pass/Fail
User clicked on "Buy" button.	Page Should jump to Payment Page.	Page has been jumped to the payment Page.	Pass

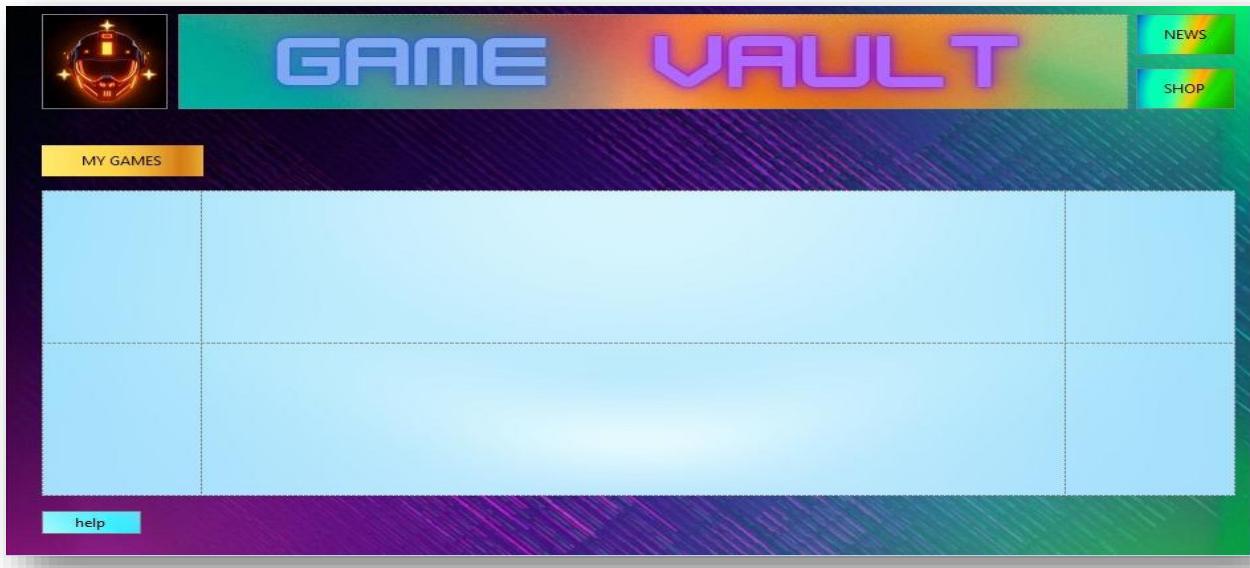


Figure 9 Download Game

Test Case: Logo V.1.0

GAME VAULT

Test Data	Expected Result	Actual Result	Pass/Fail
User clicked on Logo.	Page Should jump to Home Page.	Page has jumped to the Home Page.	Pass

Test Case: Help button V.1.0

Test Data	Expected Result	Actual Result	Pass/Fail
User clicked on Help button.	Page Should jump to Help Page.	Page has jumped to the Help Page.	Pass

Test Case: Menu Navigation V.1.0

Test Data	Expected Result	Actual Result	Pass/Fail
User clicks on "Game Store."	Should navigate to the Game Store page.	User is navigated to the Game Store page.	Pass
User clicks on "User Library."	Should navigate to the User Library page.	User is navigated to the User Library page.	Pass
User clicks on "News Page."	Should navigate to the News page.	User is navigated to the News page.	Pass

Test Case: Download Button V.1.0

Test Data	Expected Result	Actual Result	Pass/Fail
User Clicked on Download Button.	Game Should be downloaded only if the user had bought the game.	As Expected.	Pass

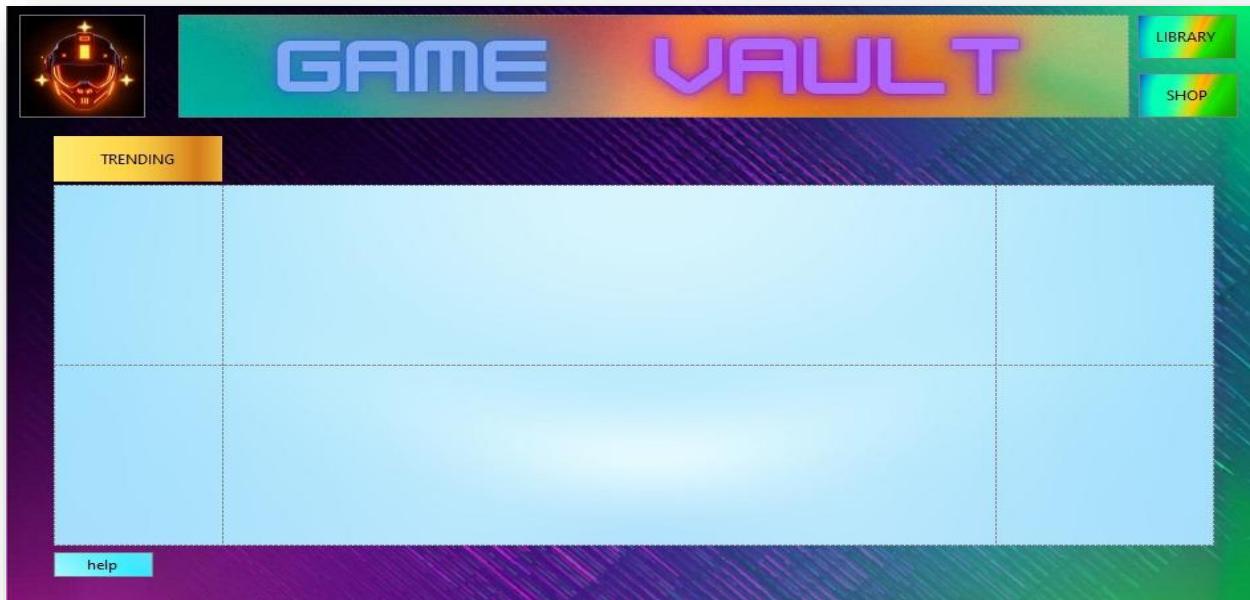


Figure 10 News Page

Test Case: Logo V.1.0

Test Data	Expected Result	Actual Result	Pass/Fail
User clicked on Logo.	Page Should jump to Home Page.	Page has jumped to the Home Page.	Pass

Test Case: Help button V.1.0

Test Data	Expected Result	Actual Result	Pass/Fail
User clicked on Help button.	Page Should jump to Help Page.	Page has jumped to the Help Page.	Pass

Test Case: Menu Navigation V.1.0

Test Data	Expected Result	Actual Result	Pass/Fail
User clicks on "Game Store."	Should navigate to the Game Store page.	User is navigated to the Game Store page.	Pass
User clicks on "User Library."	Should navigate to the User Library page.	User is navigated to the User Library page.	Pass
User clicks on "News Page."	Should navigate to the News page.	User is navigated to the News page.	Pass



Figure 11 Payment Page

Rules:

Card Number: Card number should contain exactly 16 numeric digits.

Date Issued: Date should be in MM/YY format with valid month (01-12) and year.

Name: Name should contain only alphabetic characters and spaces, with no numbers or special characters.

Address: Address should contain alphanumeric characters and valid symbols like , . , - , and #.

Phone Number: Phone number should contain 11 digits.

Test Case: Logo V.1.0

Test Data	Expected Result	Actual Result	Pass/Fail
User clicked on Logo.	Page Should jump to Home Page.	Page has jumped to the Home Page.	Pass

Test Case: Help button V.1.0

Test Data	Expected Result	Actual Result	Pass/Fail
User clicked on Help button.	Page Should jump to Help Page.	Page has jumped to the Help Page.	Pass

Test Case: Card Number V.1.0

Test Data	Expected Result	Actual Result	Pass/Fail
234567890123456	Should be Accepted.	Card number has been Accepted.	Pass
12345678	Should be Rejected.	Card number has been Rejected.	Pass
1234abcd5678	Should be Rejected.	Card number has been Rejected.	Pass
(empty field)	Should be Rejected.	Card number has been Rejected.	Pass
123456789012345678	Should be Rejected (too many digits).	Card number has been Rejected.	Pass

Test Case: Date Issued V.1.0

Test Data	Expected Result	Actual Result	Pass/Fail
12/22	Should be Accepted.	Date issued has been Accepted.	Pass
1222	Should be Rejected (invalid format).	Date issued has been Rejected.	Pass
12/2022	Should be Rejected (unsupported format).	Date issued has been Rejected.	Pass
(empty field)	Should be Rejected.	Date issued has been Rejected.	Pass

Test Case: Name V.1.0

Test Data	Expected Result	Actual Result	Pass/Fail
Sheharbano	Should be Accepted.	Username has been Accepted.	Pass
123sheri	Should be Rejected.	Username has been rejected.	Pass
Sheharbano_%#	Should be Rejected.	Username has been rejected.	Pass
123&#.	Should be Rejected.	Username has been Rejected.	Pass

Test Case: Address V.1.0

Test Data	Expected Result	Actual Result	Pass/Fail
123 Main St	Should be Accepted.	Address has been Accepted.	Pass

(empty field)	Should be Rejected.	Address has been Rejected.	Pass
@#\$%^&*	Should be Rejected (only special characters).	Address has been Rejected.	Pass
Abc	Should be Accepted.	Address has been Accepted.	Pass

Test Case: Phone Number V.1.0

Test Data	Expected Result	Actual Result	Pass/Fail
01234567891	Should be Accepted.	Has been Accepted.	Pass
Ab123456778	Should be Rejected.	Has been Rejected.	Pass
12345	Should be rejected.	Has been rejected.	Pass
\$1234556789	Should be rejected.	Has been rejected.	Pass

Test Case: Submit Button Functionality V.1.0

Test Data	Expected Result	Actual Result	Pass/Fail
User clicks "Submit" after filling all fields with valid data.	Payment info should be submitted successfully.	Payment info is submitted successfully.	Pass
User clicks "Submit" without filling one or more fields.	Should not be submitted.	As expected.	Pass
User clicks "Submit" with invalid data in any field.	Should not be submitted.	As expected.	Pass

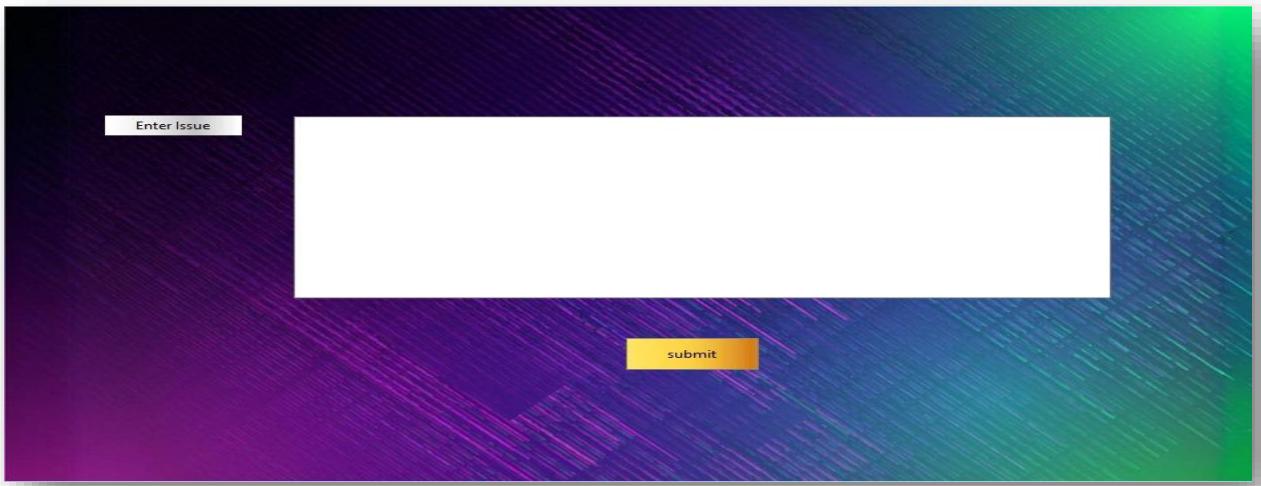


Figure 12 Get Help

Rules:

1. In Description box, the issue can contain any type of characters.

Test Case: Logo V.1.0

Test Data	Expected Result	Actual Result	Pass/Fail
User clicked on Logo.	Page Should jump to Home Page.	Page has jumped to the Home Page.	Pass

Test Case: Description Box V.1.0

Test Data	Expected Result	Actual Result	Pass/Fail
User entered the problem/issue about the App.	Should be Accepted.	Has been Accepted	Pass

Test Case: Submit Button V.1.0

Test Data	Expected Result	Actual Result	Pass/Fail
User clicked "Submit" Button After describing the issue.	Problem should be submitted and page should redirect to Game Store Page.	As Expected.	Pass

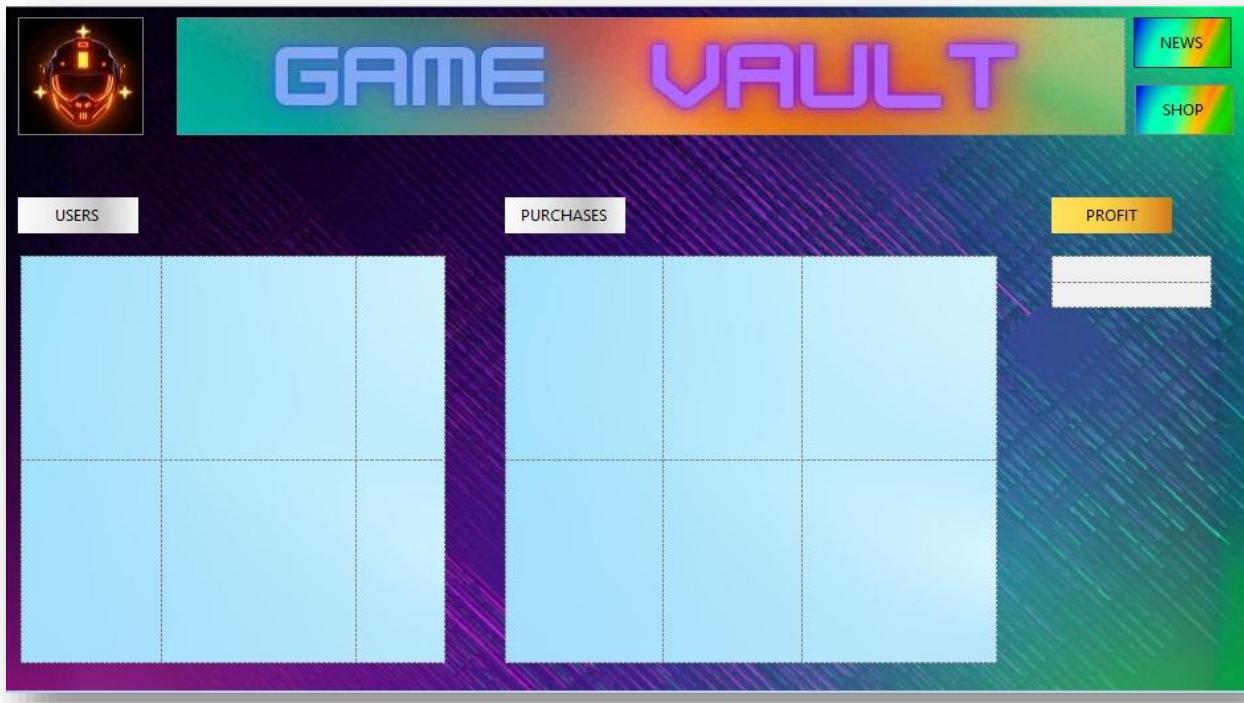


Figure 13 User info and Sales report Page

Test Case: Logo V.1.0

Test Data	Expected Result	Actual Result	Pass/Fail
Admin clicked on Logo.	Page Should jump to the Home Page.	Page has jumped to the Home Page.	Pass

Test Case: Page Navigation in the Menu Bar V.1.0

Test Data	Expected Result	Actual Result	Pass/Fail
Admin clicks on "Game Store."	Should navigate to the Game Store page.	Admin is navigated to the Game Store page.	Pass
Admin clicks on "User Info."	Should navigate to the User Library page.	Admin is navigated to the User Library page.	Pass
Admin clicks on "News Page."	Should navigate to the News page.	Admin is navigated to the News page.	Pass
Admin Clicks on "Sales Report" Page.	Should navigate to the Sales Report page.	Admin is navigated to the Sales Report page.	Pass

Test Case: Profit Button

Test Data	Expected Result	Actual Result	Pass/Fail
Admin clicked on Profit Button.	Calculated Profit should be displayed.	As Expected.	Pass

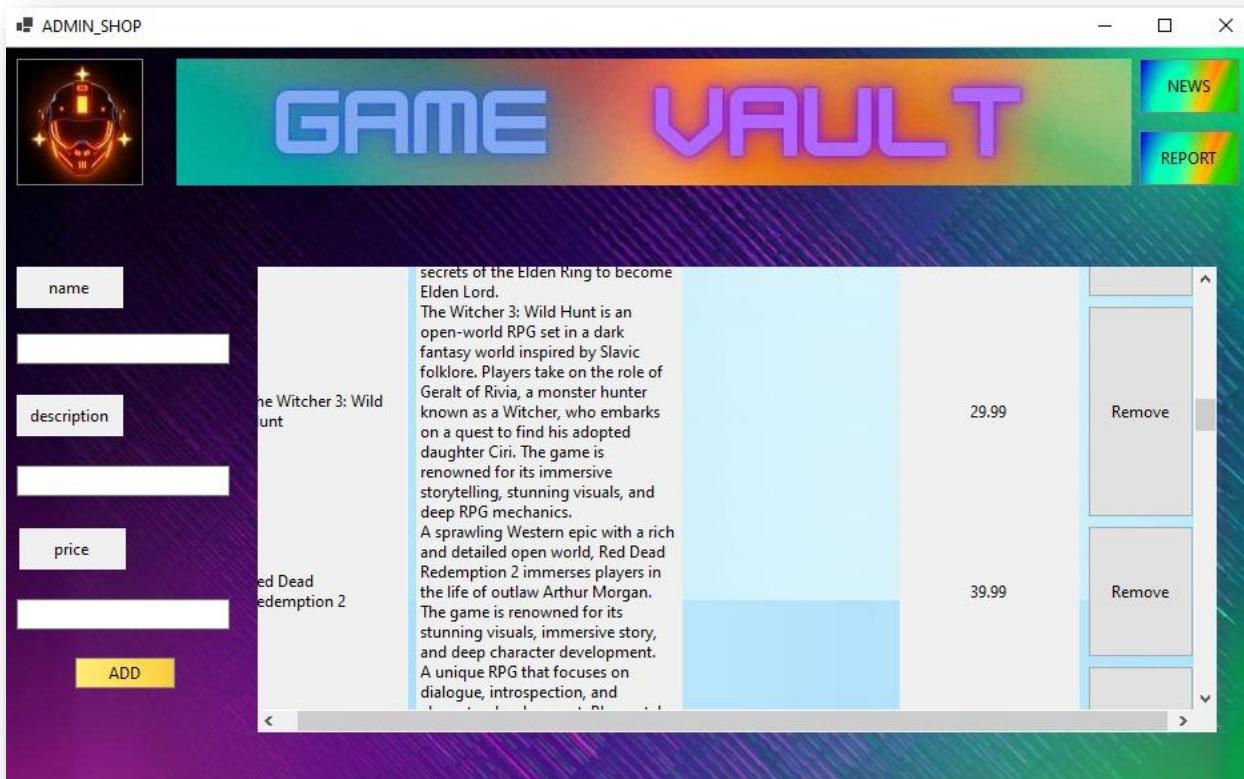


Figure 14 Admin Game Store and Add Game

Rules:

1. Game Name, Description can contain any type of characters.
2. Description can contain maximum 250 characters.

Test Case: Game Name V.1.0

Test Data	Expected Result	Actual Result	Pass/Fail
Game Name V.1.0	Should be accepted.	Game Name is accepted.	Pass
Game-Name@2024!	Should be accepted.	Game Name is accepted.	Pass
MyGame\$%#^	Should be accepted.	Game Name is accepted.	Pass
Adventure123456	Should be accepted.	Game Name is accepted.	Pass
"" (Empty Input)	Should be rejected.	Game Name is rejected.	Pass
" " (Spaces only)	Should be rejected.	Game Name is rejected.	Pass

Test Case: Description V.1.0

Test Data	Expected Result	Actual Result	Pass/Fail
An amazing game featuring epic adventures!	Should be accepted.	Description is accepted.	Pass
Version: V2.3 @ Latest Update	Should be accepted.	Description is accepted.	Pass
1234567890	Should be accepted.	Description is accepted.	Pass
" " (Spaces only)	Should be rejected.	Description is rejected.	Pass
"" (Empty Input)	Should be rejected.	Description is rejected.	Pass
Description of exactly 250 characters... (limit test)	Should be accepted (if within limit).	Description is accepted.	Pass

Test Case: Add Price V.1.0

Test Data	Expected Result	Actual Result	Pass/Fail
99.99	Should be accepted.	Price is accepted.	Pass
Free	Should be accepted.	Price is accepted.	Pass
10	Should be accepted.	Price is accepted.	Pass
10 USD	Should be accepted.	Price is accepted.	Pass
199.99 Dollars	Should be accepted.	Price is accepted.	Pass
Twenty Dollars	Should be accepted.	Price is accepted.	Pass
199..99	Should be rejected (invalid format).	Price is rejected.	Pass
199,99	Should be rejected (comma instead of dot).	Price is rejected.	Pass
"" (Empty Input)	Should be rejected.	Price is rejected.	Pass
(Spaces only)	Should be rejected.	Price is rejected.	Pass

Test Case: Add Button V.1.0

Test Data	Expected Result	Actual Result	Pass/Fail
Admin Clicked Add Button.	New Game should be Added .	As Expected.	Pass

Test Case: Remove Button V.1.0

Test Data	Expected Result	Actual Result	Pass/Fail

GAME VAULT

Admin Clicked Remove Button.	Game should be removed.	As Expected.	Pass
------------------------------	-------------------------	--------------	------

Rules:

1. Description can contain maximum 250 characters.
2. Description can contain any type of characters.

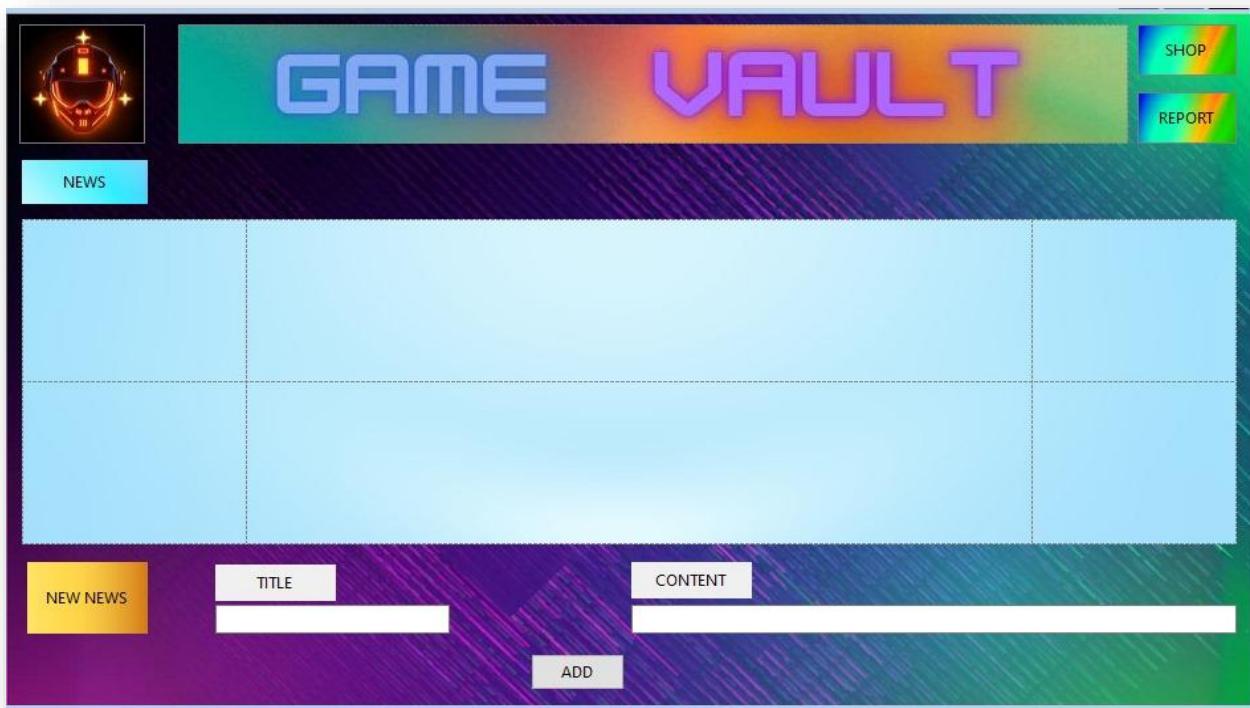


Figure 15 Add News

Test Case: Logo V.1.0

Test Data	Expected Result	Actual Result	Pass/Fail
Admin clicked on Logo.	Page Should jump to Home Page.	Page has jumped to the Home Page.	Pass

Test Case: Page Navigation in the Menu Bar V.1.0

Test Data	Expected Result	Actual Result	Pass/Fail
Admin clicks on "Game Store."	Should navigate to the Game Store page.	Admin is navigated to the Game Store page.	Pass
Admin clicks on "User Info."	Should navigate to the User Library page.	Admin is navigated to the User Library page.	Pass
Admin clicks on "News Page."	Should navigate to the News page.	Admin is navigated to the News page.	Pass
Admin Clicks on "Sales Report" Page.	Should navigate to the Sales Report page.	Admin is navigated to the Sales Report page.	Pass

Test Case: Add news description V.1.0

Test Data	Expected Result	Actual Result	Pass/Fail
A short description for the game.	Should be accepted.	Description is accepted.	Pass
Game... (249 chars)	Should be accepted (within character limit).	Description is accepted.	Pass
Game ... (251 chars)	Should be rejected (exceeds character limit).	Description is rejected.	Pass
`Game123!@#\$%^&*()_+<>?:{}`	`	Should be accepted (allows special characters).	Description is accepted.
"" (Empty Input)	Should be rejected (empty not allowed).	Description is rejected.	Pass
" " (Spaces only)	Should be rejected (only spaces not allowed).	Description is rejected.	P

Test Case: Add Button V.1.0

Test Data	Expected Result	Actual Result	Pass/Fail
Admin clicked on "Add" button.	News Should be added.	As Expected.	Pass

Integration Level Testing

Home Page V.1.0

Test Data	Expected Result	Actual Result	Pass/Fail
User /Admin clicked the link http://gamevault.com	Site should be Opened Opened.	As Expected.	Pass
User/Admin Clicked on logo.	Page should navigate to Homepage.	As Expected.	Pass
User Clicked on sign-up/sign-in/ Google or Facebook logo or help button.	Page should navigate to respective Page.	As Expected.	Pass

Sign-up Page V.1.0

Test Data	Expected Result	Actual Result	Pass/Fail
User Entered Correct and unique Credentials.	User Account should be Created.	As Expected.	Pass
User Clicked on logo.	Page should navigate to Homepage.	As Expected.	Pass
User Clicked on help button.	Page Should Navigate to help page.	As Expected.	Pass

Sign-up with Google V.1.0

Test Data	Expected Result	Actual Result	Pass/Fail
User Entered Correct and unique Credentials.	User Account should be Created.	As Expected.	Pass
User Clicked on logo.	Page should navigate to Homepage.	As Expected.	Pass
User Clicked on help button.	Page Should Navigate to help page.	As Expected.	Pass

Sign-up with Facebook V.1.0

Test Data	Expected Result	Actual Result	Pass/Fail
User Entered Correct and unique Credentials.	User Account should be Created.	As Expected.	Pass
User Clicked on logo.	Page should navigate to Homepage.	As Expected.	Pass
User Clicked on help button.	Page Should Navigate to help page.	As Expected.	Pass

Login V.1.0

Test Data	Expected Result	Actual Result	Pass/Fail
User/Admin Entered Correct Credentials.	User Account should be Created.	As Expected.	Pass
User/Admin Clicked on logo.	Page should navigate to Homepage.	As Expected.	Pass
User Clicked on help button.	Page Should Navigate to help page.	As Expected.	Pass
User/Admin clicked on forgot Password.	Page should navigate to forgot password page.	As Expected.	Pass

Forgot Password Page V.1.0

Test Data	Expected Result	Actual Result	Pass/Fail
User/Admin Entered the valid Code that was sent on his email.	Verification code should be accepted.	As Expected.	Pass
User/Admin entered the valid new password and confirm password.	Password should be changed.	As Expected.	Pass
User/Admin clicked the update button.	Page should navigate to Homepage again.	As Expected.	Pass
User/Admin Clicked on logo.	Page should navigate to Homepage.	As Expected.	Pass
User Clicked on help button.	Page Should Navigate to help page.	As Expected.	Pass
User/Admin clicked on forgot Password.	Page should navigate to forgot password page.	As Expected.	Pass

Game Store Page V.1.0

Test Data	Expected Result	Actual Result	Pass/Fail
After Login, User navigated to Game Store page and clicked on Buy button.	Page should navigate to that Payment Page.	As Expected.	Pass
User clicked any button from the menu bar.	Page should navigate to the respective page.	As Expected.	Pass
User Clicked on logo.	Page should navigate to Homepage.	As Expected.	Pass
User Clicked on help button.	Page Should Navigate to help page.	As Expected.	Pass

Library Page V.1.0

Test Data	Expected Result	Actual Result	Pass/Fail
After buying the game, user clicked on download button.	Game should be downloaded.	As Expected.	Pass
User clicked any button from the menu bar.	Page should navigate to the respective page.	As Expected.	Pass
User Clicked on logo.	Page should navigate to Homepage.	As Expected.	Pass
User Clicked on help button.	Page Should Navigate to help page.	As Expected.	Pass

News Page V.1.0

Test Data	Expected Result	Actual Result	Pass/Fail
User clicked any button from the menu bar.	Page should navigate to the respective page.	As Expected.	Pass
User Clicked on logo.	Page should navigate to Homepage.	As Expected.	Pass
User Clicked on help button.	Page Should Navigate to help page.	As Expected.	Pass

Payment Page V.1.0

Test Data	Expected Result	Actual Result	Pass/Fail
User entered correct data in input fields and clicked submit button.	Game should be bought and should be available in user library.	As Expected.	Pass
User clicked any button from the menu bar.	Page should navigate to the respective page.	As Expected.	Pass
User Clicked on logo.	Page should navigate to Homepage.	As Expected.	Pass
User Clicked on help button.	Page Should Navigate to help page.	As Expected.	Pass

Help Page V.1.0

Test Data	Expected Result	Actual Result	Pass/Fail
User entered the issue in description box and clicked submit button.	It should be accepted and message box should be displayed to the user.	As Expected.	Pass

GAME VAULT

User Clicked on logo.	Page should navigate to Homepage.	As Expected.	Pass
-----------------------	-----------------------------------	--------------	------

User Info & Sales Report Page V.1.0

Test Data	Expected Result	Actual Result	Pass/Fail
Admin opened sales report page.	Bought games by the user should be shown on page.	As Expected.	Pass
Admin clicked on Profit button.	Calculated profit should be shown in the box next to button.	As Expected.	Pass
Admin Clicked on logo.	Page should navigate to Homepage.	As Expected.	Pass
Admin opened user info page.	All the registered users should be displayed on page.	As Expected.	Pass
Admin clicked any button from the menu bar.	Page should navigate to the respective page.	As Expected.	Pass

Admin Game Store V.1.0

Test Data	Expected Result	Actual Result	Pass/Fail
Admin Clicked on remove game button.	Game should be removed from the game store.	As Expected.	Pass
Admin entered the correct and valid data about the new game to be added.	Game should be added to the Game Store.	As Expected.	Pass
Admin Clicked on logo.	Page should navigate to Homepage.	As Expected.	Pass
Admin clicked any button from the menu bar.	Page should navigate to the respective page.	As Expected.	Pass

Admin News Page V.1.0

Test Data	Expected Result	Actual Result	Pass/Fail
Admin opened news page.	News should be shown on Page.	As Expected.	Pass
Admin Entered the News about Games in	News Should be added to news page.	As Expected.	Pass

the box and clicked add button.			
Admin Clicked on logo.	Page should navigate to Homepage.	As Expected.	Pass
Admin clicked any button from the menu bar.	Page should navigate to the respective page.	As Expected.	Pass

Product Details Page V.1.0

Test Data	Expected Result	Actual Result	Pass/Fail
User clicked on buy now button.	Page should navigate to Payment Page.	As Expected.	Pass
User Clicked on help button.	Page Should Navigate to help page.	As Expected.	Pass

System Level Testing

1. Sign-up and Login

Test Case ID	GV_001	Test Case Description	Test the Signup and Login Functionality in Game Buying		
Created By	Yahya Mateen	Reviewed By	Dr. Zeeshan	Version	1.0

<u>QA Tester's Log</u>	NULL
------------------------	------

Tester's Name	Sheharbano	Date Tested	14-12-2024	Test Case (Pass/Fail/Not Executed/Suspended)	Pass
---------------	------------	-------------	------------	----------------------------------------------	------

S #	Prerequisites:
1	Access to Chrome Browser
2	Internet Should be available.

S #	Test Data
1	Username=Sheharbano
2	Pass = df12@434c
3	Email=sheri@gmail.com
4	Age=19

GAME VAULT

5	Button test: User will click Signup button (through Google, Facebook icon or button)
6	User will click Login Button.
7	User will click on Forgot Password.
8	User will Enter Verification Code. (12345)
9	New Password= df12@434c
10	Retype= df12@434c
11	User will click update.

<u>Test Scenario</u>	Verify on entering valid data for signup and entering username and password for login
----------------------	---------------------------------------------------------------------------------------

Step #	Step Details	Expected Results	Actual Results	Pass / Fail / Not executed / Suspended
1	Navigate to http://gamevault.com	Site should open	As Expected	Pass
2	Enter correct Credentials	Credential should be entered	As Expected	Pass
3	Click Signup button.	Account should be Created only if the account has not been registered already.	As Expected	Pass
4	Click Login button.	User/Admin Should be logged-in.	As Expected.	Pass
5	Click Forgot password	Page should be navigated to forgot password page.	As Expected.	Pass

GAME VAULT

6	Enter verification code, new password and retype Password	Should be Accepted only if user entered valid data.	As Expected.	Pass
7	Click update button.	Password should be updated.	As Expected.	Pass

1. Buy and Download Game

Test Case ID	GV_002	Test Case Description	Test the Game Buying Functionality		
Created By	Sheharbano	Reviewed By	Dr. Zeeshan	Version	1.0

<u>QA Tester's Log</u>

Tester's Name	Yahya Mateen	Date Tested	14-12-2024	Test Case (Pass/Fail/Not Executed/Suspended)	Pass
----------------------	--------------	--------------------	------------	-----------------------------------------------------	------

S #	Prerequisites:
1	Access to Chrome Browser
2	Internet Should be available.

S #	Test Data
1	User Clicked on View Game button.
2	User Clicked on Buy Game Button.
3	Card Number=34567890123456
4	Date issued=14/12/24
5	Name=Yahya Mateen
6	Address= street # 123.

GAME VAULT

7	Phone #= 03122345671
8	User Clicked Submit button.
9	User Clicked Download Button.

Test Scenario

Verify on entering valid data for payment and downloading Game

Step #	Step Details	Expected Results	Actual Results	Pass / Fail / Not executed / Suspended
1	Navigate to http://gamevault.com	Site should open	As Expected	Pass
2	Login into the account.	User should be logged-in.	As Expected	Pass
3	Click on View Game button.	Page should navigate to Product detail Page.	As Expected	Pass
4	Click on Buy button.	Page should navigate to Payment Page.	As Expected.	Pass
5	Enter correct and valid data in input fields and click submit button.	Game should be bought and available in User Library and Admin's Sales Report Page.	As Expected.	Pass
6	Click on user Library from menu.	Page should navigate to Library Page.	As Expected.	Pass
7	Click on Download Button.	Game should be Downloaded.	As Expected.	Pass

Non-Functional Testing

Performance Testing

Performance testing determines how the Game Vault application behaves under various conditions. We conducted load testing and stress testing to ensure that the application meets its performance requirements.

1. Load Testing

Load testing simulates increasing demand on the system to verify its ability to handle expected loads.

Sr. No.	Functionality	Estimated Load Time (sec)
1	Splash Screen	1.2 to 2
2	Authentication (Login/Signup)	2 to 3
3	Signup	0.5 to 1
4	Login	0.3 to 0.7
5	Forgot Password	0.5 to 0.8
6	Home Screen	2 to 4
7	Browse Shop	1 to 2
8	Buy Game	3 to 5
9	Add Game (Admin)	2 to 3
10	Read News	1 to 1.5
11	Add News (Admin)	2 to 3
12	View User Library	1 to 2
13	Download Game	2 to 3
14	Generate Admin Report	3 to 5
15	Help Page Submission	1 to 2

2. Stress Testing

Stress testing evaluates the system's behavior under extreme load conditions.

Sr. No.	Functionality	Estimated Load Time (sec)
1	Splash Screen	1.5 to 3
2	Authentication (Login/Signup)	2.5 to 4
3	Signup	0.6 to 1.2
4	Login	0.4 to 1
5	Forgot Password	0.6 to 1
6	Home Screen	3 to 6
7	Browse Shop	2 to 4
8	Buy Game	4 to 6
9	Add Game (Admin)	3 to 4
10	Read News	1.5 to 2
11	Add News (Admin)	3 to 4
12	View User Library	2 to 3
13	Download Game	3 to 4
14	Generate Admin Report	4 to 6
15	Help Page Submission	2 to 3

Response Time

Response Time Load Testing

Test Data	Expected Result	Actual Result	Pass/Fail
User clicks on any function.	Response within 3 seconds.	Response within 2s.	Pass
User navigates to shop.	Response within 3 seconds.	Response within 2.5s	Pass

Response Time Stress Testing

Test Data	Expected Result	Actual Result	Pass/Fail
5,000 login requests.	Response within 5 seconds.	Response within 4s.	Pass
10,000 shop navigations.	Response within 5 seconds.	Response within 4.5s	Pass

Throughput

Throughput Load Testing

Test Data	Expected Result	Actual Result	Pass/Fail

GAME VAULT

10,000 concurrent requests.	Processed in 1 second.	Processed successfully.	Pass
-----------------------------	------------------------	-------------------------	------

Throughput Stress Testing

Test Data	Expected Result	Actual Result	Pass/Fail
20,000 concurrent requests.	Processed in 5 seconds.	Processed successfully.	Pass

Utilization

Utilization Load Testing

Test Data	Expected Result	Actual Result	Pass/Fail
System under load.	CPU usage does not exceed 80%.	CPU usage at 75%.	Pass

Utilization Stress Testing

Test Data	Expected Result	Actual Result	Pass/Fail
High user load.	CPU usage does not exceed 90%.	CPU usage at 85%.	Pass

Scalability

Scalability Load Testing

Test Data	Expected Result	Actual Result	Pass/Fail
Simulate 50,000 users.	System handles requests without failure.	Handled successfully.	Pass

Scalability Stress Testing

Test Data	Expected Result	Actual Result	Pass/Fail
Simulate 120,000 users.	System manages with slight delays.	Handled with delay.	Pass

Capacity

Capacity Load Testing

Test Data	Expected Result	Actual Result	Pass/Fail
500 GB of game data, 500 GB/quarter.	System accommodates data capacity.	Data stored successfully.	Pass

Capacity Stress Testing

Test Data	Expected Result	Actual Result	Pass/Fail
1.5 TB of game data.	Slight performance lag.	Lag observed, no crash.	Pass

Availability**Availability Load Testing**

Test Data	Expected Result	Actual Result	Pass/Fail
System uptime over 24 hours.	100% availability.	Uptime maintained.	Pass

Availability Stress Testing

Test Data	Expected Result	Actual Result	Pass/Fail
System uptime over 48 hours.	98% availability.	Maintained 97.5%.	Pass

Reliability**Reliability Load Testing**

Test Data	Expected Result	Actual Result	Pass/Fail
Simulate 5,000 transactions.	Error rate below 0.01%.	0.005% error rate.	Pass

Reliability Stress Testing

Test Data	Expected Result	Actual Result	Pass/Fail
Simulate 20,000 transactions.	Error rate below 0.05%.	0.03% error rate.	Pass

Recoverability**Recoverability Load Testing**

Test Data	Expected Result	Actual Result	Pass/Fail
Simulated system failure.	Recovery within 24 hours.	Recovered in 20 hours.	Pass

Recoverability Stress Testing

Test Data	Expected Result	Actual Result	Pass/Fail
Major system failure.	Recovery within 36 hours.	Recovered in 32 hours.	Pass

Recoverability**Recoverability Load Testing**

Test Data	Expected Result	Actual Result	Pass/Fail
Regular system update.	No disruption of service.	Update successful.	Pass
Patch installation.	No disruption of service.	Installed successfully.	Pass

Recoverability Stress Testing

Test Data	Expected Result	Actual Result	Pass/Fail
Apply multiple updates (10+ patches) during high traffic.	Minimal disruption to service (less than 5 minutes).	Minor delay in one service, no major disruption.	Pass
Simultaneously schedule patch and data backup during peak hours.	System handles tasks without crashing or excessive delay.	Tasks completed with slight delay (10 minutes).	Pass
Emergency fix deployment under heavy load.	No impact on user experience during fix.	Fix applied successfully, no disruption.	Pass

Serviceability

Test Data	Expected Result	Actual Result	Pass/Fail
System detects an issue or failure.	Issue diagnosed within 1 hour.	Issue diagnosed in 45 minutes.	Pass

Security

Test Data	Expected Result	Actual Result	Pass/Fail
Sensitive data (password, payment info) is transmitted.	100% encryption of sensitive data.	Data encrypted.	Pass

Regulatory

Test Data	Expected Result	Actual Result	Pass/Fail
System processes sensitive user data.	Regulations on data privacy are followed.	Data privacy regulation met.	Pass

Manageability

Test Data	Expected Result	Actual Result	Pass/Fail
Admin configures a new game.	Task completed within 5 minutes.	Task completed in 4 minutes.	Pass
Admin updates user account.	Task completed within 5 minutes.	Task completed in 4.5 minutes.	Pass

Environmental

Test Data	Expected Result	Actual Result	Pass/Fail
System operates in an environment with 15°C.	System operates within 10°C to 50°C range.	System operates at 15°C.	Pass
System operates in an environment with 45°C.	System operates within 10°C to 50°C range.	System operates at 45°C.	Pass

Data Integrity

Test Data	Expected Result	Actual Result	Pass/Fail
Game transaction occurs.	Data accuracy maintained at 99.99%.	Data accuracy maintained at 99.99%.	Pass

Usability

Test Data	Expected Result	Actual Result	Pass/Fail
Users participate in a usability survey.	80% user satisfaction rate in the survey.	82% satisfaction rate.	Pass

Interoperability

Test Data	Expected Result	Actual Result	Pass/Fail
Payment gateway integration occurs.	Smooth integration with external systems.	Integration successful.	Pass
Game developer API integration occurs.	Smooth integration with external systems.	Integration successful.	Pass