Test Plan

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Test Cases by user story

1. As a user, I would like to be able to create an account.

Type	Test Id	Title	Instructions	Expected Result	Severity
Functional	1	Sign Up	Click on the "Create Account" button, enter a valid username and password, and click "Sign Up"	Client sends new info to the server, server stores info into database, and the user is taken to the game screen	Critical
Equivalence	2	Blank fields	Click on the "Create Account" button, do not enter anything in the username and password fields, and click "Sign Up"	Client sends error "Fields cannot be blank"	Important
Equivalence	3	Character overflow	Click on the "Create Account" button, enter more than 20 characters into the username field, and click "Sign Up"	Client sends error "Fields too long"	Important
Boundary	4	Invalid Character	Click on the "Create Account" button, enter invalid symbols into username and password fields, and click "Sign Up"	Client sends error "Invalid Characters"	Important

2. As a user, I would like to be able to change my email.

Type	Test Id	Title	Instructions	Expected Result	Severity
Functional	5	Settings	Click on the "Settings" button, enter an email account and click "Change Email"	Client sends new info to the server, server stores info into database	Critical
Equivalence	6	Invalid address	Click on the "Settings" button, enter an invalid email and click "Change Email"	An error message should show explaining that the user has entered an invalid email	Important
Equivalence	7	Duplicate Email	Click on the "Settings" button, enter same email and click	An error message should show	Workaround

			"Change Email"	explaining that the user has entered the same email	
Boundary	8	Blank Email	Click on the "Settings" button, enter no email and click "Change Email"	An error message should show explaining that the user has entered no email	Workaround

3. As a user, I would like to be able to change my password.

Type	Test Id	Title	Instructions	Expected Result	Severity
Functional	9	Settings	Click on the "Settings" button, enter an email account and click "Change Password"	Client sends new info to the server, server stores info into database	Critical
Boundary	10	Blank Password	Click on the "Settings" button, enter no email and click "Change Password"	An error message should show explaining that the user has entered no password	Important

4. As a user, I would like to be able to continue saved games.

Type	Test Id	Title	Instructions	Expected Result	Severity
Functional	11	Continue Game	Start a game, exit the game, and click "Continue Game"	User is taken to the point in game where previously left off.	Critical
Boundary	12	No current game	Click "Continue Game"	Error message shows that there is no game that was started	Important

5. As a user, I would like to be able to quit a game.

Type	Test Id	Title	Instructions	Expected Result	Severity
Functional	13	Game exit	Click the exit game button	User leaves the current game state is saved for return	Important

6. As a user, I would like to be able to start over.

Type	Test Id	Title	Instructions	Expected Result	Severity
Functional	14	Force reset	Click the reset game button	User is given a fresh character and progress is reset	Important

7. As a user, I would like to be able to see my score on the leaderboard.

Type	Test Id	Title	Instructions	Expected Result	Severity
Functional	15	Normal view	Changing to the leaderboard tab will bring up the Important scores of all people who play	A list anywhere from 1 - 20	Workaround
Boundary	16	No Records	Changing to leaderboard tab	When changing to the leaderboard tab and there are 0 Important scores the page should say no Important scores available yet	Workaround

8. As a user, I would like to be able to log in.

Type	Test Id	Title	Instructions	Expected Result	Severity
Functional	17	Normal login	The user loads the page fill in a correct username a password	User is taken to the game page	Critical
Boundary	18	Long Password	Password is filled in and is above 30 characters	Fails and page states password is too long	Workaround
Boundary	19	Long Username	Username is filled in and is above 30 characters	Fails and page states username is too long	Workaround
Boundary	20	Empty fields	The user attempts to submit without filling out either fields or both	The login button is grayed out and un selectable	Workaround
Boundary	21	Incorrect User / Pass	User enters a username and password that dont match	Failed login attempt, pop up stating so	Workaround

9. As a user, I would like to be able to log out.

Type	Test Id	Title	Instructions	Expected Result	Severity

Type	Test Id	Title	Instructions	Expected Result	Severity
Functional	22	Logout	A logged in user presses the logout button	The token is cleared out, and the user is returned to the login page	Important

10. As a user, I would like to be able to buy items.

Type	Test Id	Title	Instructions	Expected Result	Severity
Functional	23	Buying item	Click on a "store", chose an item and click on "buy" button.	Client sends new info to Server and Server stores the information	Critical
Equivalence	24	Buying nothing	Click on "store" not chose an item and click on "buy" button.	Add to display a "Select item" error.	Important
Boundary	25	Buying invalid character of items.	Click on "store" and chose an item and write a invalid number into "amount" field and click on "buy" button.	Add display a "Write amount in number" error.	Important

11. As a user, I would like to be able to view my in-game inventory.

Type	Test Id	Title	Instructions	Expected Result	Severity
Functional	26	Open/Scroll Inventory	The following instructions depend on the inventory implementation we use, but have the same expected result: Inventory Dialog: Click the "Inventory" button Scrollable Inventory Sidebar: Scroll through the inventory	All collected items should be displayed with their descriptions	Important
Functional	27	Inventory Properly Updates	Collect an item and use a consumable item	The inventory should show the new item and the consumed item should be gone	Important
Functional	28	Use a special item	Use a non-consumable item to perform some action	The item should remain in the inventory	Important
Boundary	29	Full Inventory	Collect enough items that the inventory is completely filled, and then try to pick up one more	Message displays: "Items cannot be added to a full inventory"	Important

12. As a developer, I would like stored information to be hashed to prevent security breaches.

Type	Test Id	Title	Instructions	Expected Result	Severity
Functional	30	View saved passwords	Open the database and view the users table to see if it is possible to see un-hashed passwords	Passwords appear as long hashed strings which will not be usable to log in	Critical

13. As a developer, I would like to prevent SQL injection.

Type	Test Id	Title	Instructions	Expected Result	Severity
Equivalence	31	SQL injection attack: registration page - email	Attempt to corrupt data in the database through the use of a SQL injection attack in the email field of the registration page.	The characters that signify a SQL injection attack will be recognized and no corruption will occur.	Critical
Equivalence	32	SQL injection attack: registration page - username	Attempt to corrupt data in the database through the use of a SQL injection attack in the username field of the registration page.	The characters that signify a SQL injection attack will be recognized and no corruption will occur.	Critical
Equivalence	33	SQL injection attack: registration page - password	Attempt to corrupt data in the database through the use of a SQL injection attack in the password field of the registration page.	The characters that signify a SQL injection attack will be recognized and no corruption will occur.	Critical
Equivalence	34	SQL injection attack: login page - email	Attempt to corrupt data in the database through the use of a SQL injection attack in the email field of the login page.	The characters that signify a SQL injection attack will be recognized and no corruption will occur.	Critical
Equivalence	35	SQL injection attack: login page - password	Attempt to corrupt data in the database through the use of a SQL injection attack in the password field of the login page.	The characters that signify a SQL injection attack will be recognized and no corruption will occur.	Critical

14. As a developer, I would like to be able to prevent duplicate users.

Type	Test Id	Title	Instructions	Expected Result	Severity
Equivalence	36	Email already exists	Try to create user with email matching existing email	Message displays: "A user already exists with that email"	Critical
Equivalence	37	Username already exists	Try to create user with username matching existing username	Message displays: "A user already exists with that username"	Critical
Boundary	38	Case-insensitive domain	Attempt to create a user with an email that has been entered with the same domain in a different case (gmail.com -> GmaIL.cOm)	Message displays: "A user already exists with that email"	Critical

15. As a developer, I would like the application to require an account to play.

Type	Test Id	Title	Instructions	Expected Result	Severity
Equivalence	39	Invalid login attempt	Attempt to login using an email that does not exist as an account.	A display for the user saying "An account with that email does not exist"	Critical

16. As a developer, I would like to be able to keep track of users with individual login tokens.

Type	Test Id	Title	Instructions	Expected Result	Severity
Equivalence	40	Randomization of tokens	On the backend, create numerous users with temporary emails and passwords and then look at where we store the login tokens to make sure they are randomized and kept track of.	We should be able to see proof of user login tokens linked to individual accounts.	Important
Functional	41	Login token given with communication from front end	When a user logins to the website, the front end should communicate the login token to the back end for processing.	The backend should receive a login token individualized for the user.	Important

17. As a user, I would like it to be functional on chrome, firefox and edge.

Type	Test Id	Title	Instructions	Expected Result	Severity
Functional	42	Functionality of website on Chrome	Test the website to make sure the UI and overall functionality of the website is still working specifically on Google Chrome	Everything should work as intended, and Google Chrome should not affect the website.	Critical
Functional	43	Functionality of website on Firefox	Test the website to make sure the UI and overall functionality of the website is still working specifically on Mozilla Firefox	Everything should work as intended, and Mozilla Firefox should not affect the website.	Critical
Functional	44	Functionality of website on Edge	Test the website to make sure the UI and overall functionality of the website is still working specifically on Microsoft Edge	Everything should work as intended, and Microsoft Edge should not affect the website.	Critical

18. As a user, I would like to be able to play through at least 20 different events.

Type	Test Id	Title	Instructions	Expected Result	Severity
Equivalence	45	Ensure the same room isn't hit multiple events in the same game	Set up a test on the backend that plays the game and randomly selects options imitating user input. Run this test many times and record the rooms that were hit in every game.	None of the events will occur more than once in one playthrough unless the event was meant to be used again.	Workaround
Equivalence	46	Ensure all of the different events are used.	Set up a test on the backend that plays the game and randomly selects options imitating user input. Run this test many times and record the rooms that were hit in every game.	After a relatively large amount of games are played, every event should be used at some point.	Workaround

19. As a user, I would like to be able to win or lose the game.

Type	Test Id	Title	Instructions	Expected Result	Severity
Functional	47	Winning the game	Going through every event on the Backend randomly and buying randomly until it wins the game.	Being in the winning state after.	Critical
Functional	48	Losing the game	Going through every event on the Backend randomly and	Being in the losing state after	Critical

			buying randomly until it loses the game.		

20. As a user, I would like to be able to be notified about events that affect my game state.

Type	Test Id	Title	Instructions	Expected Result	Severity
Functional	49	Going through event	Click on "events", choose an event and press "start event".	Client reacts based on the items you have.	Critical
Equivalence	50	Going through empty event	Click on "events", choose no event and press "start event".	Add to display a "Select event" error.	Important
Equivalence	51	Going through multiple events	Click on "events", choose multiple events and press "start event".	Add to display a "Select only one event" error.	Important
Boundary	52	Going through invalid event	Click on "events", choose none existing event and press "start event".	Add to display "No such event" found.	Important

21. As a user, I would like to be able to view other users' scores on the leaderboard.

Type	Test Id	Title	Instructions	Expected Result	Severity
Functional	53	Looking at leaderboard	Click on "leaderboard"	Server sends info about leaderboard to client and client shows result.	Important
Equivalence	54	Looking at empty leaderboard	Click on "leaderboard"	Server sends info about leaderboard to client and client shows result. Server should save default names for empty leaderboard.	Important

22. As a user, I would like to be able to view collected "trophies".

Type	Test Id	Title	Instructions	Expected Result	Severity
Functional	55	Looking at trophies	Click on "trophies"	Server sends info about trophies to client and client shows results.	Important
Equivalence	56	Looking at empty	Click on "trophies"	Server sends info about trophies to	Important

		trophies		client and client shows empty trophy set.	
Equivalence	57	Looking at trophies and having too many trophies	Click on "trophies"	Server sends info about trophies to client and client shows a scrolling table of trophies	Important

23. As a user, I would like to use the keyboard to play the game..

Type	Test Id	Title	Instructions	Expected Result	Severity
Functional	58	Playing with keyboard	User "UP", "DOWN"..-Key	Pointer on screen should move up and down.	Critical
Equivalence	59	Pressing no keyboard	User presses no key.	Nothing should be happening.	Important
Boundary	60	Pressing invalid key	User presses an invalid key, which is not assigned to anything.	Nothing should be happening.	Important

24. As a user, I would like to be able to see my score while I'm playing

Type	Test Id	Title	Instructions	Expected Result	Severity
Functional	61	View Score	Click "Start Game" and check if there is a score showing in the game page	Score field should show in the game page and should say 0	Workaround
Functional	62	Score Change	Play through the game in order to change the score	Score field should change accordingly to activity	Workaround

25. As a user, I would like to be able to drop items

Type	Test Id	Title	Instructions	Expected Result	Severity
Functional	63	Drop item	Select an item and click "drop" to free up inventory space	Item is removed from inventory	Workaround
Equivalence	64	Dropping non-existing item	Select an empty inventory slot	The item information window will be cleared and no "drop item"	Workaround

				button will display	