X Marks the Spot Test Plan

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Feedback Team(s):
- → GeoUnity + Jump and Launch

Testing instructions for expert users to carry out the tests:
- → Go to deployed site at http://xmarksthespot.pythonanywhere.com (make sure the link is http, it will not work for https links)
- → Requirements for hardware/software/password key
  - ↳ Hardware:
    - ○ Laptop/Desktop computer, mouse, keyboard, trackpad
  - ↳ Software:
    - ○ Command line interface (in order to use git, npm, and docker commands)

Automation (complexity of testing instructions):
- → Time and effort to set up the test plan for execution
  - ↳ Navigation to deployed project: 1 min (max)
  - ↳ Testing time for features' test cases: ~33 minutes
  - ↳ Testing time for backend: 1 min (max) for each API route
- → The effective usage of the testing tools
  - ↳ The testing tools being used
    - ○ Frontend: go to site http://xmarksthespot.pythonanywhere.com (make sure the link is http, it will not work for https links)
    - ○ Backend: Postman

Amount of time to finish the tests:
→ Report the expected execution time to complete the test
↳ ~45 min (max)

Test Cases for Each Feature:

Feature	Description	Test Case(s)	Expected Result	Expected Time	Actual Test Result
Landing Page	Landing page for when the user first accesses the site, explaining the product and why the user would want to use it. From here, they can elect to log-in to an existing account, or sign-up for a new one.	Users attempt to scroll down the page.	Users can scroll from the top of the page down, seeing views that describe the site, allow users to log in, and encourage the viewer to sign up for an account.	< 1 min	Pass/Fail
		User clicks the Sign Up button.	User is redirected to the Sign Up page.	< 1 min.	Pass/Fail
		User clicks the Login button.	User is redirected to the Login Page.	< 1 min.	Pass/Fail
Account Creation Page	User enters information like first and last name, email address, and a password for the account.	User leaves one of the form fields blank.	The form doesn't submit and the user is prompted to fill out the fields they left incomplete.	< 1 min	Pass/Fail

			User tries to create an account with a password that doesn't meet password requirements.	The form doesn't submit and the user is warned to create a password that meets the requirements.	< 1 min	Pass/Fail
			User tries to create an account when both password fields don't match.	The form doesn't submit and the user is alerted that both passwords must match.	< 1 min	Pass/Fail
			User tries to create an account with an already existing username.	The form doesn't submit and the user is alerted that the username is associated with another account.	< 1 min	Pass/Fail
			User tries to create an account with an already existing email.	The form doesn't submit and the user is alerted that the email is already associated with another account.	< 1 min	Pass/Fail
			User tries to create an account with a valid username, email, and password.	The form submits and the user is redirected to the login page.	2 min	Pass/Fail

Login Page	User logs into a pre-existing account after providing the correct email address and password associated with said account.	User enters an incorrect password.	User gets an alert indicating as such.	< 1 min.	Pass/Fail
		User enters an incorrect username.	User gets an alert indicating as such.	< 1 min.	Pass/Fail
		User enters the correct credentials.	User is redirected to the user dashboard.	< 1min.	Pass/Fail
NavBar	NavBar lets users navigate between pages once logged in.	User clicks Dashboard	User is redirected to Dashboard	< 1min.	Pass/Fail
		User clicks Play	User is redirected to Join/Start Game Page	< 1min.	Pass/Fail
		User clicks Settings	User is redirected to Settings Page	< 1min.	Pass/Fail
		User clicks Logout	User is redirected to Landing Page	< 1min.	Pass/Fail
Forgot Password	If a user cannot remember their password, they should be able to reset it by providing the email address associated with the desired account; an email will then be sent to	User clicks the 'Forgot Password' button on the Login page.	Users will be prompted to enter the email address associated with the account they have, and an email will show up in their inbox with a link to reset password.	2 min.	Pass/Fail

	the user instructing them on how to reset their password.				
Reset Password	Users will get an email after completing the 'Forgot Password' Page, which contains a link that will redirect them to a page where they can reset their password.	User tries to reset their password with a new password that doesn't meet password requirements.	The form doesn't submit and the user is warned to create a password that meets the requirements.	2 min.	Pass/Fail
		User enters a new, valid password.	Form submits, redirecting them to the login page in order for them to log in using their username and new password.	< 1 min	Pass/Fail
Password Encryption	User data from account creation will be safely stored after hashing it for security purposes.	Use Postman to test the 'api/user/add' route with a body of first name, last name, email, username, and password.	The password shouldn't be visible in plain text in the database or in the API call.	< 1 min.	Pass/Fail
Logout Functionality	Users can log out of their pre-existing account. Any progress made during	User clicks the 'Log Out' button in the navbar.	The user's current session ends, redirecting them to the landing page.	< 1 min	Pass/Fail

			From there, they cannot access the user dashboard without having to re-enter their account credentials in Login, as their current session was terminated.		
Account Settings	On the settings page, users can view the account first name, last name, email, and password. On top of that, the user will have the ability to change the account password or delete the account.	User clicks on the 'Settings' button in the navbar.	Users can view their account's first and last name, username, email address, and password.	2 min.	/Fail
		User clicks a 'Change' button and then clicks the 'Cancel' button.	The input field disappears and the field containing their username/email reappears.		/Fail
		User clicks on the 'Settings' button in the navbar and clicks 'Change' for 'Username'.	User enters a valid username and clicks 'Change'. The user is alerted the change was successful, and the page reloads.		/Fail
		User clicks on the 'Settings' button in the	User enters a nonempty email and		/Fail

the session will be stored underneath their account.

		navbar and clicks 'Change' for 'Email'.	clicks 'Change'. The user is alerted the change was successful, and the page reloads.		
		User clicks on the 'Settings' button in the navbar and clicks 'Change Password'	Users is redirected to the 'Reset Password' page, where they can change their password.		Pass/Fail
		User clicks on the 'Settings' button in the navbar and clicks 'Delete Account'	Users can delete their account, redirecting them to the landing page afterwards.		Pass/Fail
Start Game	Users can start a game where they will be provided a generated unique pin number, which they can provide to other players they want to join, or they can play the game by themselves.	User is the host, and selects the 'Start Game' option.	Users will be redirected to the join screen for that game session, and will have access to a button that will allow them to start the session whenever they choose.	2 min.	Pass/Fail

Join Game (Multiple Players)	Users can join a game with other users by providing a pin number into the prompt.	User enters a correct, already existing pin to join a game.	Users will be redirected to the join screen for that game session.	3 min. (max)	Pass/Fail
		User enters an invalid pin (game already in session, game doesn't exist, game that has ended) in an attempt to join a game.	Users will be notified that the pin provided is invalid.	30 sec. (max)	Pass/Fail
Start Game Screen View	Users should be able to see other players join prior to starting.	User enters a valid pin for a game.	Users that have already joined that game session (on Start Game Page) can see the new user join – their username shows up on the screen.	1 min. (max)	Pass/Fail
Start Game Session	Host user (single player or in multiplayer mode) can start an active game session, triggering the quiz to begin.	User that is NOT a host clicks Start Game.	User gets an alert that only the host can start the game.	30 sec. (max)	Pass/Fail
		User that IS a host clicks Start Game.	All users are redirected to the same quiz.	30 sec. (max)	Pass/Fail

Quiz Game	Users will be able to play a geography quiz session by themselves or with other players, where they will be tested on their knowledge of different geography topics.	Host for a game clicks 'Start Game'.	All users will begin taking their interactive quiz. They can view questions and associated material (i.e. images) and click on the desired answer choice. Time remaining for each question will be on display.	8 min.	Pass/Fail
		User fills in/selects their desired answer choice and clicks submit with time remaining.	Users are informed what answer they have submitted and are asked to wait until other users answer.	< 15 sec.	Pass/Fail
		User fills in/selects their desired answer choice and clicks submit with NO time remaining.	Correct answer is displayed and the user is redirected to the next question after a few seconds.	< 15 sec.	Pass/Fail
Game End Screen	At the end of the game, users will see the order players placed in as well as the points the user has earned through the game.	User finishes a game with other users.	The user with the most points will be shown as having placed first. Additionally, the user will see how many points they have earned within the	2 min.	Pass/Fail

			game.		
User Dashboard	Page where users can get a snapshot of their game history and performance, milestone tokens, and leaderboard.	User successfully logs into/signs up for an account, which redirects them to this page. (Users can also select 'Dashboard' in the navbar.	Users can see their account username, leaderboard (populated with accounts containing the top 3 points), and their personal game history. They can also see any milestone tokens they've earned.	< 1 min.	Pass/Fail
User Total Points Display	Users can view the total points earned from all the games they have played at the top of their dashboard.	User views user points through the user dashboard.	User points match the user data in the database. User points should match the sum of the points that are shown for each game in the 'Game History' section. It also gets updated correctly after playing a game.	< 1 min.	Pass/Fail
User Milestone Display	Users can view all the milestones earned based on the total number of points they have accumulated. Users will also be able to view the	User clicks into their user dashboard, and looks for the section under their username to view earned milestone tokens.	User's milestones match the user milestone reached data. Users should be able to view the achieved milestone tokens on the	< 1 min.	Pass/Fail

	milestones that are still locked, which will incentivize them to continue completing the quizzes.		dashboard. Additionally, a new milestone should be unlocked when a user reaches the milestone points.		
		Users can click on the 'See More' button to see all available milestones.	Users will see a modal with all the available milestones.		Pass/Fail
User Game History	Users will have the ability to view their game history, which is a list of previous games they have played. Each entry will include the date of the game, and the total points earned.	User goes to the user dashboard and views their game history section.	User sees all of their previously played games.	< 1 min.	Pass/Fail
		User plays and completes a new game.	User sees the new game on user game history on the user dashboard.	Time to play a game + < 1 min.	Pass/Fail
Overall User Leaderboard	Users can view the current rankings of all the users on the site and see who is collecting the most points.	User goes to the user dashboard and views the user leaderboard section.	User rankings match the sorting of user data from the database. Everytime a user gains more points and overtakes	< 1 min.	Pass/Fail

			another user, the new ranking should be updated in the leaderboard.		