BlackBox Testing

Login Functionality

Test Case ID	Test Case Description	Test Objective	Preconditions	Inputs	Expected outcome	Test Steps	Actual outcome	Pass/Fail	Notes
EC1	Verify successful login with valid email and password	Ensure the login functionality works correctly for valid credentials	User has registered on the website	email: manchesterviral@gmail.com, Password: pass1234	User is logged in successfully	1. Navigate to the website's login 2. Enter the valid email and password 3. Click on the login button	User is logged in successfully	Pass	Added to the mongodb database
EC2	Verify error message when email is invalid	Ensure the error message is displayed when the email is invalid	User has registered on the website	email: viral, Password: pass1234	Error message Enter" a valid email" is displayed	1. Navigate to the website's login page 2. Enter the invalid email and valid password 3. Click on the login button	Under the email section "Enter a valid email" is shown in red	Pass	
EC3	Verify error message when password is invalid	Ensure the error message is displayed when the password is invalid	User has registered on the website	email: manchesterviral@gmail.com, Password: pass	Error message "Invalid email or password" is displayed	1. Navigate to the website's login page 2. Enter the valid email and invalid password 3. Click on the login button	Error message "Invalid email or password" is displayed	Pass	
EC4	Verify error message when email is unregistered	Ensure the error message is displayed when the email is not registered	User has not registered on the website	email: trick@gmail.com,	Error message "Invalid email or password" is displayed	1. Navigate to the website's login page	Error message "Invalid email or password" is displayed	Pass	

				Password: pass		2. Enter the valid email and invalid password 3. Click on the login button			
B1	Verify error message when username is empty	Ensure the error message is displayed when the username field is left empty	User has registered on the website	Username: (empty), Password: pass1234	Error message "Please enter a username" is displayed	1. Navigate to the website's login page 2. Leave the username field empty 3. Enter a valid password 4. Click on the login button	Error message "Please enter a username" is displayed	Pass	
B2	Verify error message when password is empty	Ensure the error message is displayed when the password field is left empty	User has registered on the website	Username: johndoe1, Password: (empty)	Error message "Please enter a password" is displayed	1. Navigate to the website's login page. 2. Enter a valid username 3. Leave the password field empty 4. Click on the login button	Error message "Please enter a password" is displayed	Pass	

Register / Sign Up Functionality

Test Case ID	Test Case Description	Test Objective	Preconditions	Inputs	Expected outcome	Test Steps	Actual outcome	Pass/Fail	Notes
EC1	Verify successful sign up with valid information	Ensure the sign up functionality works correctly for valid inputs	User is on the website's sign up page	Email: johndoe@gmail.com, Password: Pass1234, Confirm Password: Pass1234	User is signed up successfully and logged in	1. Navigate to the website's sign up page 2. Enter valid input data for all fields 3. Click on the sign up button	User is signed up successfully and logged in	pass	
EC2	Verify error message when email is already registered	Ensure the error message is displayed when the email is already registered	User has already registered on the website	Email: johndoe1@gmail.com (already registered), Password: Pass1234, Confirm Password: Pass1234	Error message "Email address is already registered" is displayed	1. Navigate to the website's sign up page 2. Enter an email address that is already registered 3. Enter valid input data for other fields 	Error message "Email address is already registered" is displayed	Pass	

						4. Click on the sign up button		
EC3	Verify error message when password and confirm password do not match	Ensure the error message is displayed when the password and confirm password fields do not match	User is on the website's sign up page	Email: johndoe@gmail.com, Password: Pass1234, Confirm Password: pass4321	Error message "Invalid Password or Email" is displayed	1. Navigate to the website's sign up page 2. Enter valid input data for all fields except Confirm Password 3. Enter a different value for Confirm Password 4. Click on the sign up button	Error message "Invalid Password or Email" is displayed	Pass
B1	Verify error message when Email is invalid	Ensure the error message is displayed when the Email field contains an invalid email address	User is on the website's sign up page	Email: johndoegmail.com (invalid email format), Password: pass1234, Confirm Password: pass1234	Error message "Invalid Password or Email" is displayed	1. Navigate to the website's sign up page 2. Enter valid input data for First Name, Last Name, Password, and Confirm Password fields 3. Enter an invalid email address format 4. Click on the sign up button	Error message "Invalid Password or Email" is displayed	Pass
B2	Verify error message when Password is too short	Ensure the error message is displayed when the Password field is too short	User is on the website's sign up page	Email: johndoe@gmail.com, Password: abc (less than 6 characters), Confirm Password: abc	error message "Password is not appropriate" is displayed	1. Navigate to the website's sign up page 2. Enter valid input data for First Name, Last Name, Email, and Confirm Password fields 3. Enter a password that is too short 4. Click on the sign up button	error message "Password is not appropriate" is displayed	Pass

Forgot Password Functionality

Test Case ID	Test Case Description	Test Objective	Preconditions	Inputs	Expected outcome	Test Steps	Actual outcome	Pass/Fail	Notes
EC1	Verify successful reset password with valid email	Ensure the forgot password functionality works correctly for valid email	User has registered on the website	Email: manchestervir al@gmail.com (registered email)	User is sent an email with instructions to reset password	1. Navigate to the website's forgot password page 2. Enter valid email address registered on the website 3. Click on the reset password button	User is sent an email with instructions to reset password	Pass	
EC2	Verify error message when email is not registered	Ensure the error message is displayed when the email entered is not registered on the website	User has not registered on the website	Email: johnsmith@g mail.com (unregistered email)	Error message "Email address not found" is displayed	1. Navigate to the website's forgot password page 2. Enter an email address that is not registered on the website 3. Click on the reset password button	An alert which says "User does not exist, enter another email" will be shown on the screen.	Pass	
B1	Verify error message when email is empty	Ensure the error message is displayed when the email field is left empty	User is on the website's forgot password page	Email: (empty)	Error message "Please enter a valid email address" is displayed	1. Navigate to the website's forgot password page 2. Leave the email field empty 3. Click on the reset password button	Error message "Please enter a valid email address" is displayed	Pass	
B2	Verify error message when email is invalid	Ensure the error message is displayed when the email field contains an invalid email address	User is on the website's forgot password page	Email: viral (invalid email format)	Error message "Please enter a valid email address" is displayed	1. Navigate to the website's forgot password page 2. Enter an invalid email address format 3. Click on the reset password button	Error message "Please enter a valid email address" is displayed	pass	
B3	Verify successful reset password with valid email containing uppercase and lowercase characters	Ensure the forgot password functionality works correctly for a valid email containing uppercase and lowercase characters	User has registered on the website	Email: JohnDoe@gmai l.com (registered email with uppercase and lowercase characters)	User is sent an email with instructions to reset password	1. Navigate to the website's forgot password page 2. Enter valid email address containing uppercase and lowercase characters	User is sent an email with instructions to reset password	pass	

				registered on the website 3. Click on the reset password button				

Searching Functionality

Test Case ID	Test Case Description	Test Objective	Preconditions	Inputs	Expected outcome	Test Steps	Actual outcome	Pass/Fail	Notes
EC1	Verify successful search with valid inputs	Ensure the search functionality works correctly for valid inputs	User is on the website's search page	Location: Jurong Point, Pick Up Time: 12:00 PM, Pick Up Date: 2023-04-10, Duration: 5 days	Available car rental options for the specified inputs are displayed	1. Navigate to the website's search page 2. Enter valid input data for all fields 3. Click on the search button	Available car rental options for the specified inputs are displayed	Pass	
EC2	Verify error message when location field is empty	Ensure the error message is displayed when the location field is left empty	User is on the website's search page	Location: (empty), Pick Up Time: 12:00 PM, Pick Up Date: 2023-04-10, Duration: 5 days	Error message "Please enter a location" is displayed	1. Navigate to the website's search page 2. Leave the location field empty 3. Enter valid input data for other fields 4. Click on the search button	Error message "Please enter a location" is displayed	Pass	
EC3	Verify error message when pick up time or pick up date is in the past	Ensure the error message is displayed when the pick up time entered is in the past	User is on the website's search page	Location: Jurong Point, Pick Up Time: 10:00 AM (past time), Pick Up Date: 2023-04-10, Duration: 5 days	The selection of date and time are not allowed before today.	1. Navigate to the website's search page 2. Enter a past time for the pick up time field 3. Enter valid input data for other fields 4. Click on the search button	The selection of date and time are not allowed before today.	Pass	Since the selection of date is a calendar pulldown option that does not allow you to pick date and time before the current.
EC4	Verify error message when duration is too short less than an hour	Ensure the error message is displayed when the duration entered is too short	User is on the website's search page	Location: Jurong Point, Pick Up Time: 12:00 PM, Pick Up Date: 2023-04-10, Duration: 30 minutes	Error message "Please enter a duration of at least 1 hour" is displayed	1. Navigate to the website's search page 2. Enter valid input data for Location, Pick Up Time, and Pick Up Date fields 3. Enter a duration that is too short 4. Click on the search button	Error message of "Minimum amount of time is 1 hour, please enter again!"	Pass	
EC5	Verify error message when duration is too long	Ensure the error message is displayed when the duration entered is too long	User is on the website's search page	Location: Jurong Point, Pick Up Time: 12:00 PM, Pick Up Date: 2023-04-10, Duration: 24	Error message "Please enter a duration of at most 23 hours" is displayed	1. Navigate to the website's search page 2. Enter valid input data for Location, Pick Up Time, and Pick Up Date fields 3. Enter a duration that is too	Error message of "Maximum amount of time is 24 hours, please enter again!"	Pass	`

Test Case ID	Test Case Description	Test Objective	Preconditions	Inputs	Expected outcome	Test Steps	Actual outcome	Pass/Fail	Notes
						long 4. Click on the search button			
B1	Verify successful search with minimum duration	Ensure the search functionality works correctly for the minimum allowed duration	User is on the website's search page	Location: Jurong Point, Pick Up Time: 12:00 PM, Pick Up Date: 2023-04-10, Duration: 1 hour	Available car rental options for the specified inputs are displayed	1. Navigate to the website's search page 2. Enter valid input data for Location, Pick Up Time, and Pick Up Date fields 3. Enter the minimum allowed duration (1 day) 4. Click on the search button	Results will be rendered and users will be redirected to the results page.	Pass	
B2	Verify successful search with maximum duration	Ensure the search functionality works correctly for the maximum allowed duration	User is on the website's search page	Location: Jurong Point, Pick Up Time: 12:00 PM, Pick Up Date: 2023-04-10, Duration: 23 hours	Available car rental options for the specified inputs are displayed	1. Navigate to the website's search page 2. Enter valid input data for Location, Pick Up Time, and Pick Up Date fields 3. Enter the maximum allowed duration (30 days) 4. Click on the search button	Results will be rendered and users will be redirected to the results page.	Pass	

Bookmarking Locations Functionality

Test Case ID	Test Case Description	Test Objective	Preconditions	Inputs	Expected outcome	Test Steps	Actual outcome	Pass/Fail	Notes
EC1	Verify successful addition of a new bookmark location	Ensure a new bookmark location is added successfully	User is logged in to the website	Location: Jurong West ST 61 Duration: 2 hours	Location is added to the user's bookmarks list	1. Log in to the website 2. Navigate to the user's bookmarks page 3. Click on the bookmark location button 4. Enter a valid location 5. Click on the save button	Alert saying "location is saved" is shown to indicate that the location is added into the user's bookmark list.	Pass	
EC3	Verify error message when adding empty bookmark location	Ensure the error message is displayed when an empty bookmark location is added	User is logged in to the website	Location: (empty)	Error message "Please enter a location" is displayed	1. Log in to the website 2. Navigate to the user's bookmarks page 3. Click on the bookmark location button 4. Leave the location field empty 5. Click on the save button	Error message "Location field is empty, Please enter a location!"	**Pass**	
B3	Verify successful deletion of bookmark location	Ensure a bookmark location is deleted successfully	User is logged in to the website and has at least one bookmark location	Location: Jurong West ST 61 Duration: 2 hours (delete bookmark location)	Location is removed from the user's bookmarks list	1. Log in to the website 2. Navigate to the user's bookmarks page 3. Click on the delete button for the	**Error message "Estimate Time field is empty, Please enter the**	**Pass**	

					specified bookmark location 4. Confirm the deletion 5. Verify that the bookmark location is removed from the user's bookmarks list	estimate time"		

Maps Calculation Function

Test Case ID	Test Case Description	Test Objective	Preconditions	Inputs	Expected outcome	Test Steps	Actual outcome	Pass/Fail	Notes
EC1	Verify successful calculation of duration when adding a start destination and ending destination	Ensure the map calculates the duration from start to ending destination and back to start.	User is in the Map Page	Start Destination: Hall 9 NTU Block 45 End Destination: Jurong Point Mall Added Time: 2 hours	The map calculator will calculate and display the time traveling, total time taken and estimated time needed.	1. Go to Map page 2. Add the starting destination by typing the location and pressing the add button. 3. Add the ending location 4. Press the calculate duration button	The calculator showed the time traveling 18 minutes, total time taken: 138 minutes, Estimated Timed Needed: 3 hours	Pass	
EC1	Verify successful calculation of duration when adding a start destination and 2 other destination	Ensure the map calculates the duration from start to ending destination and back to start with multiple stops.	User is in the Map Page	Start Destination: Hall 9 NTU Block 45 Destination 1: Jurong Point Mall Destination 2: Jem Mall	The map calculator will calculate and display the time traveling, total time taken and estimated time needed.	1. Go to Map page 2. Add the starting destination by typing the location and pressing the add button. 3. Add the first stop location	The calculator showed the time traveling 42 minutes, total time taken: 162 minutes, Estimated Timed	Pass	

				Added Time: 2 hours		3. Add the second stop location 4. Press the calculate duration button	Needed: 3 hours		
EC3	Verify no calculation when only one destination added	Ensure the map does calculate at only one location since there is no point	User in the Map page	Destination 1: Jurong Point Mall Added Time: 2 hours	The calculation button wont execute	1. Go to Map page 2. Add the starting destination by typing the location and pressing the add button. 3. Click the Calculate button	The calculate button does not work and wont execute just like stated	pass	