

Software Test Design (STD)

1. Introduction -

This Software Test Design document outlines the detailed test cases for verifying the functionality of the TourTrack application — a mobile app designed to Improve the travel experience by offering real time trail information, weather updates, user easy interaction, and personalized route recommendations.

2. Test Cases

Test Case ID	Description	Preconditions	Test Steps	Expected Result	Actual Result
TC-001	Test user registration with valid credentials	Server running, database connected	1. Open the app 2. Tap on "Sign Up" 3. Enter valid details (name, email, password, phone number, birth date) 4. Tap on "Register"	User is redirected to preferences screen	The user was successfully registered and appears in the database.
TC-002	Prevent user registration when required fields are empty.	The user is not registered and opens the app for the first time	1. Open the app 2. Tap on "Sign Up" 3. Leave one or more fields are empty. 4. Tap on "Register"	Error message shown – if its onley one field – shown near to the edit text – "Please enter your X" If multiple fields are missing – the first field that is missing sends the error message.	The system prevented registration and displayed an error message.

TC-003	Registration with existing email or phone number	User with the same email or phone number already exists in the database	1. Open registration page 2. Enter an email or phone number already registered 3. Submit form	Error message shown: "Email or phone number already in use"	The system prevented registration and displayed an error message.
TC-004	Submit preferences	User successfully registered	1. Select trail preferences 2. Tap "Continue"	Preferences are saved and the user is redirected to the home screen	Preferences have been successfully saved to the user's data and the home screen has been loaded
TC-005	Login with incorrect password	User exists in database	1. Open login page 2. Enter correct email and wrong password 3. Submit	Error message shown: "Invalid Email or Password"	Error message appeared correctly.
TC-006	Display of map with user location and routes	Location services enabled, routes in DB	1. Open the home screen 2. Grant location permission if prompted 3. Wait for location to load	Map displays user's location and the routes	View your location on the map and move around to see the routes
TC-007	Real time display of nearby users	Location permission granted, at least one nearby user exists	1. Open the home screen 2. Wait for the system to detect nearby users 3. View the map	Nearby users are shown as icons on the map. Tapping an icon reveals the user's name	Nearby users appeared on the map. User name was shown on tap
TC-008	Algorithm - Prevent form submission	App is running, user is logged in	1. Open the recommendation	An error message appears	An error message appears

	when fields are empty		<p>s engine .fragment</p> <p>2. Leave required fields (e.g., difficulty, group size, or age) .empty</p> <p>3. Tap "Find Recommended ."Routes</p>		indicating the missing input.
TC-009	Algorithm - Filter results by attraction	The database contains routes that are cataloged into attraction types, for example, "restaurant", "accommodation", etc. (in our case, the data only contains .routes)	<p>1. Select type attraction from the attraction dropdown.</p> <p>2. Complete all fields</p> <p>3. tap "Find Recommended "Routes</p>	If you selected a trip, the first 3 routes will be displayed. If you selected anything else, a message will be .displayed	If you selected a trip, the 3 most recommended routes are displayed. If you selected anything else, a message is displayed stating that no routes exist.
TC-010	Algorithm- Show "Load More" Button	The recommendation engine returned 3 routes and there .is more data	<p>1.Complete the recommendation form and tap "Find Recommended ."Routes</p> <p>2. Scroll down and tap the "Load .More" button</p>	A new route card .appears If all routes are shown, the "Load More" button disappears and a "No routes" message .appears	A new route was loaded for us and the load button appeared again. We pressed it until we finished the data and a message appeared: "No more routes."
TC-011	Checking the correctness of the algorithm	Existing route data in the database	<p>1. Open the app</p> <p>2. Navigate to the recommendation form</p> <p>3. Fill all required fields with valid values</p> <p>4. Select specific criteria (e.g., category, attraction type, difficulty level)</p>	The recommended routes match the selected criteria and appear sorted by relevance	The recommended routes matched the selected criteria and were displayed in relevant order.

			5. Tap "Find Recommended Routes"		
TC-012	Chats - Display of currently connected users	User is logged in, at least one user is online	1. Open the chat screen 2. View "Connected friends" section	A list of users who are currently online (have been online in the last 10 minutes) is displayed	Connected users appeared correctly
TC-013	Chats - Display of all registered users	User is logged in	1. Open the chat screen 2. View the "All Users" section	A list of all app users is displayed	User list loaded successfully
TC-014	Chats - Search for a specific user	User is logged in	1. Open chat screen 2. Enter part of a name in the search bar	Matching users are filtered and shown in real time	Search returned accurate results
TC-015	Chats - Call a user who allows phone calls	The target user allows calls	1. Open the chat screen 2. Tap phone icon next to user's name	Call is initiated via phone app	Phone call initiated successfully
TC-016	Chats - Attempt to call a user who disabled phone calls	Target user has disabled phone calls	1. Open the chat screen 2. Tap phone icon next to user's name	An alert appears: "This user does not allow phone calls"	An alert message appeared as expected and the call was not placed.
TC-017	Chats - Open WhatsApp chat with a user who allows it	Target user allows WhatsApp messages	1. Open the chat screen. 2. Tap WhatsApp icon next to user's name	WhatsApp opens with that user's chat window	WhatsApp conversation opened successfully and a generic message appears
TC-018	Chats - Attempt to open WhatsApp with a user who disabled it	Target user disabled WhatsApp messages	1. Open the chat screen. 2. Tap WhatsApp icon next to user's name	Alert message: "This user does not allow WhatsApp"	Alert appeared as expected

				communication	
TC-019	Chats -Display logged-in user's name	User is logged in	1. Open the profile screen	The user's full name is displayed at the top of the screen	User's name appeared correctly
TC-020	Chats -Update user permissions from profile screen	User is logged in	1. Open the profile screen 2. Toggle on/off permissions (e.g., allow phone calls, allow WhatsApp)	Permissions are updated in the database and reflected in the UI and other parts of the app accordingly	Permissions updated successfully
TC-021	Submit a report or recommendation	User is logged in	1. Open the report screen 2. Fill in report or recommendation form 3. "Tap "Submit	The entry is saved and appears under "My Reports" or "My Recommendations"	Report/recommendation submitted successfully
TC-022	View user's own reports/recommendations	User has submitted at least one item	1. Open report screen 2. Scroll to "My Reports" or "My Recommendations" section	Submitted items are listed accurately	Items loaded and displayed correctly
TC-023	Edit a report/recommendation	User is logged in and has submissions	1. Open "My Reports"/"My Recommendations" 2. Tap "Edit" on one item 3. Update and save	The user can edit all fields except the photo. Changes are saved and updated immediately in the list	Edits were saved and reflected properly
TC-024	Delete a user's own report/recommendation	User is logged in and has	1. Open "My Reports"/"My	The item is removed from the list	Item deleted successfully

	endation	submissions	Recommendatio "ns 2. Tap "Delete" on one item 3. Confirm deletion	and database	
TC-025	Display global reports/recom mendations on home screen	User is logged in and location is enabled	1. Open home screen 2. Wait for location to load 3. Scroll to recommendation s	Relevant reports/reco mmendatio ns for the area are displayed	Items relevant to current location appeared
TC-026	Admin deletes someone else's report	Logged in as admin or authority, another user has a report	1. Go to home screen 2. Tap "Delete" on another user's report	The report is deleted from the database and removed from display	Admin successfully deleted the report