Backbase

QA Assignment

Test Cases For City Locator

The following test cases includes the test cases for UI, Functionality and the test coverage for the complete screen

Title	Steps	Expected Results	Automation
Check if the user is able to open the app and land on home screen successfully.	1. Tap on app icon from the home screen	The application should open and the user should navigate to the home screen	Yes
Check the UI of the landing screen	1. Open the app and navigate to the home screen	The landing screen of the city locator should have the following options, 1. Screen title - Mobile Assignment 2. Search box to search cities 3. List of all cities	Yes
Check if the user is able to scroll the list of cities from top to bottom and vice versa	1. Go to Home screen 2. Scroll up and down	The user should be able to scroll through the list of cities from A to Z and vice versa	Yes
Check if the user is able to tap on any city from the list	1. Go to Home screen 2. Tap on any City name	The user should be able to tap on any city name from the list.	Yes
Check if the user is able to see the Marker/Pin on the correct city selected	1. Go to Home screen 2. Tap on the city name	The user should be able to navigate to the Maps screen after tapping on a city name and the red marker should appear on the city.	Yes

Test Cases

Title	Steps	Expected Results	Automation
Check if the user is able to Search the city using the search bar	1. Go to Home Screen 2. Tap on Search bar 3. Search for the city name eg. Delhi	The user should be able to search for the City name and the search result should appear on the screen	Yes
Check if the user is able to Search for the city name which has spaces in it	1. Go to Home Screen 2. Tap on Search 3. Search for New York	The user should be able to search for the city names which has spaces in it.	Yes
Check if the user is able to search city name which has special characters in it	1. Go to Home Screen 2. Tap on a Search Bar 3. Search for a city name which has special characters in it eg. 't Zand	The user should be able to search for the City name with a special characters in it and the search result should appear on the screen	Yes
Check if the application responds normally when the user tries to search using special characters	1. Go to Home Screen 2. Tap on a Search Bar 3. Add Search query as $$@%(@($	The application should respond normally and no search results should appear for the special characters search query	Yes

Test Cases

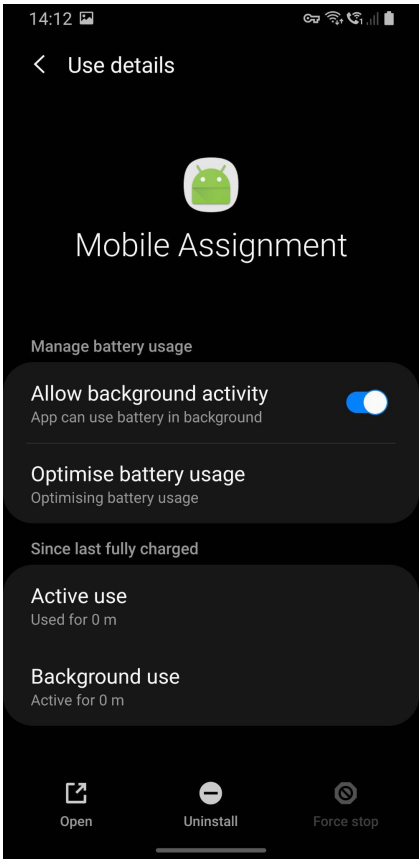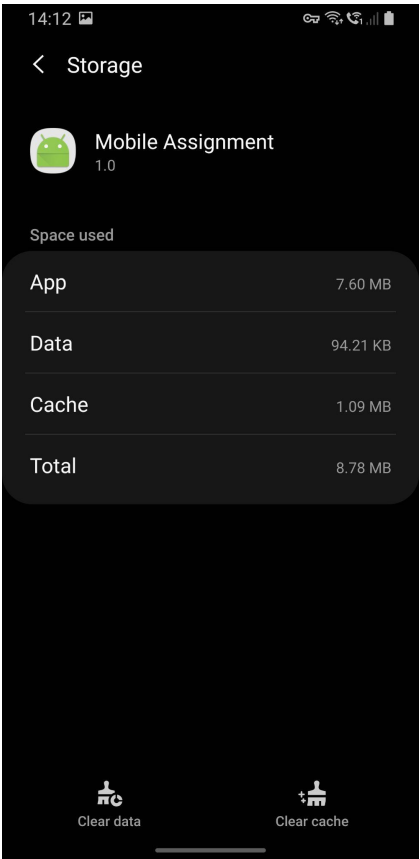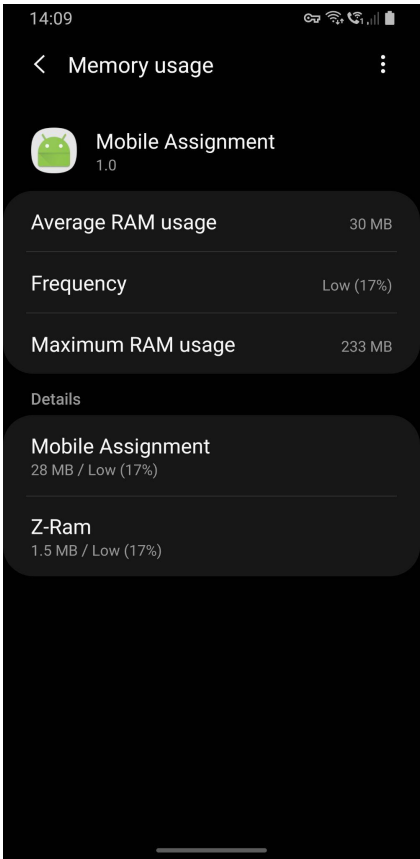| Title	Steps	Expected Results	Automation
Check if the user is able to Zoom in and Zoom out on the google maps screen	1. Go to Home Screen 2. Tap on any city 3. Once the map appears, Zoom in or Zoom out	The user should be able to zoom in and zoom out on the Google maps screen	Manual
Check if the user uses spaces before and after city names it shows the correct cities	1. Go to Home Screen 2. Tap on Search 3. Add Spaces and enter city name	The user should be able to search with the spaces and the correct search result should be shown to the user.	Yes
Check if the app responds normally if the user uses emojis in the search bar	1. Go to Home screen 2. Tap on Search 3. Add Emojis	The application should respond normally and no search results should appear for the Emojis search query	Yes

Manual Testing Bugs & Improvements

Following issues have been observed during Manual testing of the Future.

ID	Title	Steps to reproduce	Platform & OS	Severity
1	The Google Maps API was not working properly hence the UI for the map was not appearing	1. Go to Home Screen 2. Tap on any city name	Android	Blocker
2	The app loading takes more than 5 seconds	1. Tap on app icon to launch it	Android	Normal
3	Few cities appears twice in the list after searching for it. Eg. New Britain	1. Go to Home Screen 2. Tap on search 3. Search for New Britain	Android	Normal
4	The screen navigation buttons missing on the home screen and internal screen of the map	1. Open the app	Android	Normal

Bugs & Improvements

14:09	Memory usage	⋮

Mobile Assignment
1.0

Average RAM usage	30 MB
Frequency	Low (17%)
Maximum RAM usage	233 MB

Details

Mobile Assignment
28 MB / Low (17%)

Z-Ram
1.5 MB / Low (17%)

14:12 ← Storage

Mobile Assignment
1.0

Space used

App	7.60 MB
Data	94.21 KB
Cache	1.09 MB
Total	8.78 MB

Clear data   Clear cache

14:12 ← Use details

Mobile Assignment

Manage battery usage

Allow background activity
App can use battery in background

Optimise battery usage
Optimising battery usage

Since last fully charged

Active use
Used for 0 m

Background use
Active for 0 m

Open   Uninstall   Force stop

App Start-Up	10 Seconds
Battery Time while using an app	Optimised
Memory Consumption	~30 MB Average
App in background	0 m

UI Automation: Test Suit, Test Cases and their details

Following test cases have been automated and added as part of test suit.

	Test case title	Description
TS	**ActivityTestSuite**	This test suit created to execute all below automated test cases at once.
1	MainActivityTestLandingUIElements	Verify the elements on the landing screen including Screen title, search bar and list of cities
2	MainActivityTestSearch	Happy Flow. Verify the Search is working as expected if the user search for the city
3	MainActivityTestScrollCities	Verify if the user can scroll through the city names
4	MainActivityTestCityWithSpaces	Verify city name which has space in it. Eg. New York
5	MainActivityTestwithSpecialSymbols	Verify if the user can use the special characters in the search box and app responds normally.
6	MainActivityTestEmojis	Verify if the user is able to test negative test cases using emojis as search query
7	TestCitieswithSpecialChars	Verify if the user is able to search for the City name with a special characters in it. Eg. 't Zand
8	MainActivityTestSpacesBeforeAfterCity	Verify if the user can add spaces before and after the city name during the search

UI Automation: Using Espresso: Steps to Run Tests

How to use the source code to run the project?

1. Download the source code from here.
2. Import the project in the Android Studio
3. Once the gradle build/sync is done you are good to go to use it.

How to Run Application on Emulator

1. Create a required emulator with Play store using Android studio's AVD manager.
2. Click the play button on the top bar of Android studio.
3. The list of devices which are running would be shown in studio, select the desired one.
4. Select the **ActivityTestSuit** from the dropdown, select emulator and click on Play icon.
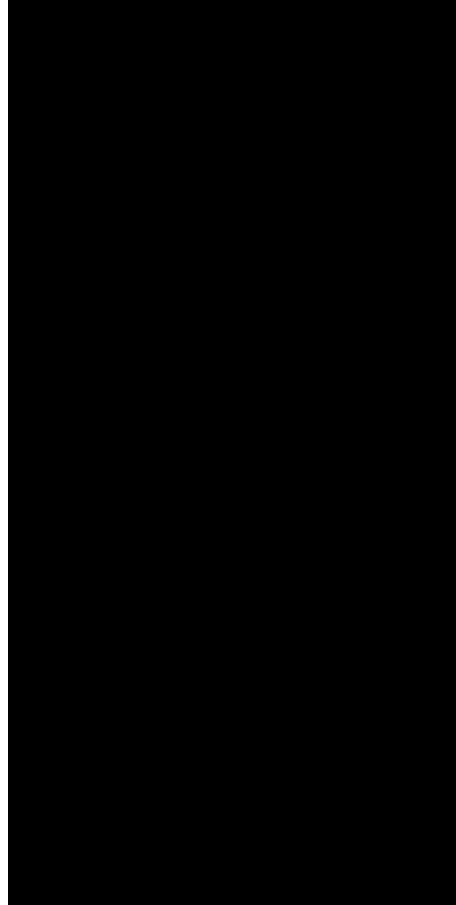
How to Run Application on an Android Device

1. Connect you phone to your machine through USB.
2. You will be shown with the list of devices connected to/running on your machine, select the desired one.
3. Select the **ActivityTestSuit** from the dropdown, select the connected physical device and click on Play icon

UI Automation: Test Execution for City Locator Test Suit

Video of the test execution :
https://youtu.be/IPpEJISFS1I

THANK YOU ALL