**Black Box Test Case:**

Rating

| Test ID | Scenario | Steps/Input Actions | Expected Result | Actual Result |
|---|---|---|---|---|
| 1 | Add parks to list and view ratings | Select "+"<br>Select desired parks add to list | Selected parks appear in the list with their ratings displayed | All selected parks are listed with correct ratings |
| 2 | Remove parks from list | Select "+"<br>Deselect parks to remove from list | Deselected parks are removed from the list | Deselected parks no longer appear |
| 3 | Reorganize park list | Drag and Drop the 6 dots on the right of the list to reorder the list by user | Park list order changes according to user's drag-and-drop actions | New order is correctly reflected |
| 4 | Refresh park ratings | Select any other icon (e.g., "Map" or "Notification"), then reselect the "Rating" icon | System refreshes and shows the latest ratings for all parks | Ratings are updated to latest values |

Rating Config

| Test ID | Scenario | Steps/Input Actions | Expected Result | Actual Result |
|---|---|---|---|---|
| 1 | Reset all configuration values to default | Tap the "Reset to Default" button in the configuration panel | All configuration values revert to their system default settings | All values successfully reset to defaults. Sliders returned to default positions. |
| 2 | Reset a single configuration value to default | Modify a configuration setting<br>Tap the "DEFAULT" icon next to that individual setting | Only the selected configuration resets to its default; other values remain unchanged | Targeted config reset correctly while others retained user-defined values. |
| 3 | Set a configuration value for a single variable | Select one configuration item (e.g."Partly Cloudy")<br>Adjust its value using the slider | The selected configuration value is successfully updated | Slider moved and value updated instantly; UI reflected the change without delay. |
| 4 | Set a configuration to a preferred value and observe ratings | Set a configuration value to a preferred level (e.g., Partly Cloudy = -2)<br>Return to the park rating view | Park ratings update based on the new configuration weighting | Ratings list reordered to reflect changes; highly-rated clean parks moved to top. |
| 5 | Persist configuration values after app restart | Set multiple configuration values to their lowest settings<br>Kill the app from background<br>Reopen the app | All previously saved configuration values are retained and restored upon reopening the app | All configuration values remained as previously set after restarting the app; no data loss observed. |

Notification

| Test ID | Scenario | Steps/Input Actions | Expected Result | Actual Result |
|---|---|---|---|---|
| 1 | Set a notification for a selected park | Tap “Notification” → Tap “+” → Set time and select park → Tap “Save” | Notification is scheduled and triggers at the selected time | Notification successfully scheduled and triggered at the correct time |
| 2 | Modify an existing notification | Tap on existing notification time → Set a new time → Tap “Save” | Notification updates to reflect the new scheduled time | Notification time updated successfully and triggered at the new time |
| 3 | Delete an existing notification | Tap on existing notification time → Tap “Delete Notification” | Selected notification is removed and no longer triggers | Notification was deleted; no alerts received at the previously scheduled time |
| 4 | Activate or deactivate a notification | Toggle the “Active/Inactive” switch | Notification only triggers when Active is ON; no notification is sent when Active is OFF | Toggle works as expected; notifications trigger only when Active is ON |
| 5 | Trigger push notification | Wait for scheduled time with app running or in background | A push notification is delivered with the park name and scheduled visit reminder | Push notification received successfully with correct park name and time |
| 6 | Set a recurring notification | Tap on a notification → Select (activate) the days to repeat → Save | Notification is triggered repeatedly according to selected recurrence days | Notifications triggered consistently on selected days (e.g., Mon/Wed/Fri) |
| 7 | Schedule multiple notifications for same park | Select the same park → Schedule multiple notifications at different times (e.g., 9AM, 3PM) | Each scheduled notification triggers separately at its designated time | Both notifications triggered correctly and independently at 9AM and 3PM |
| 8 | Verify notification triggers only on selected day | Schedule a notification for a specific day (e.g., Monday) → Wait for that day/time | Notification only triggers on the selected day | Notification triggered only on the selected day; no alerts on other days |
| 9 | Notification should not trigger when date is deselected | Schedule a notification for multiple days (e.g., Mon–Fri) → Deselect one day → Wait for that day/time | Notification does not trigger on the deselected day | No notification was triggered on the deselected day; behavior worked as intended |
| 10 | Validate assigned park value in notification | Select a specific park and schedule a notification → Observe the push notification when triggered | Notification accurately shows the correct park name and location as selected during scheduling | Notification message displayed the correct park name and details |

Map

| Test ID | Scenario | Steps/Input Actions | Expected Result | Actual Result |
|---|---|---|---|---|
| 1 | Viewing park general location | Tap the "Map" icon to open map view | Map loads successfully, and park markers are clearly displayed at correct locations | Map loads successfully, parks are visible and correctly placed on the map |
| 2 | Zooming in and out on the map | Use + or − buttons, or perform pinch/spread gesture using two fingers | Map zooms in and out smoothly; map content adjusts without distortion or lag | Zoom in/out works as expected; transitions are smooth and responsive |
| 3 | Navigate to the park via Google Maps | Tap on the pin of the park you want to visit → Tap the park name that appears in the map pop-up → The app opens a Google Maps link | System redirects to Google Maps with the park's coordinates as the destination | Google Maps opens with correct location |