**Get Outdoors! Black Box Test Plan**

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**Introduction:**

GetOutdoors is a system designed to encourage people to be more active outdoors by providing an up to date list of the activities and trails that are available in local parks. In Eclipse, the user starts the program by running the GetOutdoorsGUI class,, via right-clicking on the class in the “Project Explorer” and selecting “Run As - Java Application”. The GUI will open, and the user can then choose to either load an .md file containing park, trail and activity data, or simply create the data themselves through the GUI. The user can create, view, and edit the available activities for the area in the Activities tab. The user can create and edit parks in the Parks tab. Each park in the system will have its own separate tab, where trails in the park can be created, viewed, and edited. In the “Filter Trails” tab, the user can filter the trails by their containing park and an activity the trails in the park are open for. Additionally, the user can select a filter that displays all trails in a park not closed for maintenance, rather than a specific activity. Trails can also be closed for an activity based on the snow conditions in the park. For activities that require snow, like skiing, a minimum snow depth must be met for the trail to be open for the activity. For activities that don’t require snow, like running, to be open, a trail must not exceed the maximum snow depth allowed for the activity. The user can set the snow depth for a trail directly, or by recording the latest amount of snowfall or melting in a park. The latter option will increment or decrement the snow depths of all trails in the park accordingly. After creating or modifying a park system, the user can choose to save the file to an .md file.

**Please Note:**

For ease of testing, certain tests will be run directly one after the other. If the GUI needs to be restarted for a test, this will be explicitly stated in the description. Otherwise, it can be assumed that a test is fine to be run directly after the prior test. Additionally, for tests (such as testInvalidFileMissingParkHeader) that instruct the user to close the GUI by saving to an arbitrary file which won’t be used later, the user can alternatively click the “Terminate” button ( a red square) in the Eclipse GUI, for convenience. Although it is very unlikely, should a test fail after terminating the application instead of exiting normally, we ask that you please rerun the test and exit as instructed in the test description. Thank you.

**Required Files:**

* All source code, as “.java” files, listed in the project description in the “\*/Project3/src” folder.
* “\*/Project3/.classpath”
* “\*/Project3/.project”
* Within “\*/Project3/test-files/” :
  + BBTP\_Expected.md
  + Invalid.md
  + InvalidActivityData.md
  + InvalidParkData.md
  + InvalidTrailData.md
  + NCSU.md
  + NoActivityHeader.md
  + NoParkHeader.md
  + NoTrailHeader.md

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| --- | --- | --- | --- |
| **Test ID** | **Description** | **Expected Results** | **Actual Results** |
| testStartup  (Noah Benveniste) | **Preconditions: none**  Run GetOutdoorsGUI.java  Check results | The GUI opens and displays the GetOutdoorsManager window.  The user has access to three tabs: Activities, Parks and Filter Trails, all of which are currently empty. | The GUI opens and displays the GetOutdoorsManager window.  The user has access to three tabs: Activities, Parks and Filter Trails, all of which are currently empty. |
| testInvalidFile  (Noah Benveniste)  Tests that a file with generally malformed data will not be loaded | **Preconditions:**  **testStartup passes**  Select  File->  Open File->  test-files->  Invalid.md  Check results | An error message displays with the following message:  “Error opening file.”  No Activities, Parks, or Trails were loaded. The GUI remains unchanged from testStartup. | An error message displays with the following message:  “Error opening file.”  No Activities, Parks, or Trails were loaded. The GUI remains unchanged from testStartup. |
| testInvalidFileMissing ActivityHeader  (Noah Benveniste)  Tests that a file with no Activity header will not be loaded | **Preconditions:**  **testStartup passes**  Select  File->  Open File->  test-files->  NoActivityHeader.md  Check results | An error message displays with the following message:  “Error opening file.”  No Activities, Parks, or Trails were loaded. The GUI remains unchanged from testStartup. | An error message displays with the following message:  “Error opening file.”  No Activities, Parks, or Trails were loaded. The GUI remains unchanged from testStartup. |
| testInvalidFileMissingParkHeader  (Noah Benveniste)  Tests that a file with no Park header will not be loaded | **Preconditions:**  **testStartup passes**  Run GetOutdoorsGUI.java  Select  File->  Open File->  test-files->  NoParkHeader.md  Check results  Select  File->Exit  Save file as any arbitrary name, as it will not be used going forward | An error message displays with the following message:  “Error opening file.”  Activities are successfully loaded, while the Parks tab remains empty. No Trails are loaded either. | An error message displays with the following message:  “Error opening file.”  Activities are successfully loaded, while the Parks tab remains empty. No Trails are loaded either. |
| testInvalidFileMissingTrailHeader  (Noah Benveniste)  Tests that a file with no Trail header will not be loaded | **Preconditions:**  **testStartup passes**  Select  File->  Open File->  test-files->  NoTrailHeader.md  Check results  Select  File->Exit  Save file as any arbitrary name, as it will not be used going forward | An error message displays with the following message:  “Error opening file.”  Activities and Parks are successfully loaded; There are tabs for both Main Campus and Centennial Campus, however none of the Parks have any Trail data. | An error message displays with the following message:  “Error opening file.”  Activities and Parks are successfully loaded; There are tabs for both Main Campus and Centennial Campus, however none of the Parks have any Trail data. |
| testInvalidFileMalformdActivityData  (Noah Benveniste)  Tests that a file with malformed Activity data will not be loaded | **Preconditions:**  **testStartup passes**  Select  File->  Open File->  test-files->  InvalidActivityData.md  Check results | An error message displays with the following message:  “Error opening file.”  No Activities, Parks, or Trails were loaded. | An error message displays with the following message:  “Error opening file.”  No Activities, Parks, or Trails were loaded. |
| testInvalidFileMalformedParkData  (Noah Benveniste)  Tests that a file with malformed Park data will not be loaded | **Preconditions:**  **testStartup passes**  Select  File->  Open File->  test-files->  InvalidParkData.md  Check results  Select  File->Exit  Save file as any arbitrary name, as it will not be used going forward | An error message displays with the following message:  “Error opening file.”  Activities are successfully loaded, while the Parks tab remains empty. No Trails are loaded either. | An error message displays with the following message:  “Error opening file.”  Activities are successfully loaded, while the Parks tab remains empty. No Trails are loaded either. |
| testInvalidFileMalformedTrailData  (Noah Benveniste)  Tests that a file with malformed Trail data will not be loaded | **Preconditions:**  **testStartup passes**  Run GetOutdoorsGUI.java  Select  File->  Open File->  test-files->  InvalidTrailData.md  Check results  Select  File->Exit  Save file as any arbitrary name, as it will not be used going forward | An error message displays with the following message:  “Error opening file.”  Activities and Parks are successfully loaded; There are tabs for both Main Campus and Centennial Campus, however none of the Parks have any Trail data. | An error message displays with the following message:  “Error opening file.”  Activities and Parks are successfully loaded; There are tabs for both Main Campus and Centennial Campus, however none of the Parks have any Trail data. |
| testLoadFile  (Noah Benveniste) | **Preconditions: testStartup passes**  Run GetOutdoorsGUI.java  Select  File->  Open File->  test-files->  NCSU.md  Check results | The Activities tab now contains three new activities with the following parameters:   * Bike,Biking,false,2 * Run,Running,false,5 * Ski,Skiing and Snowboarding,true,25   The Parks tab now has two new parks with the following parameters:   * Centennial Campus,Park contained on Engineering Campus,1.0 * Main Campus,Lovely park on Main Campus,0.0   There are also two new tabs, one for each of the new parks created:   * Centennial Campus * Main Campus   The user can click on each tab to view the Trails associated with each Park. Clicking on a particular Trail updates the edit pane at the bottom of the window with the relevant data.  Centennial Campus has three Trails with the following data:  (name, maintenance status, snow level, distance, difficulty, available activities)   * Hunt Trail false 0.0 0.75 EASY Run * Lake Trail true 0.0 2.5 EASY Run * Oval Hill false 0.0 1.0 CHALLENGING Bike Ski   Main Campus has two Trails with the following data:  (name, maintenance status, snow level, distance, difficulty, available activities)   * Bell Tower Trail false 0.0 0.5 EASY Bike Run * Red Brick Road true 0.0 1.5 MODERATE Run | The Activities tab now contains three new activities with the following parameters:   * Bike,Biking,false,2 * Run,Running,false,5 * Ski,Skiing and Snowboarding,true,25   The Parks tab now has two new parks with the following parameters:   * Centennial Campus,Park contained on Engineering Campus,1.0 * Main Campus,Lovely park on Main Campus,0.0   There are also two new tabs, one for each of the new parks created:   * Centennial Campus * Main Campus   The user can click on each tab to view the Trails associated with each Park. Clicking on a particular Trail updates the edit pane at the bottom of the window with the relevant data.  Centennial Campus has three Trails with the following data:  (name, maintenance status, snow level, distance, difficulty, available activities)   * Hunt Trail false 0.0 0.75 EASY Run * Lake Trail true 0.0 2.5 EASY Run * Oval Hill false 0.0 1.0 CHALLENGING Bike Ski   Main Campus has two Trails with the following data:  (name, maintenance status, snow level, distance, difficulty, available activities)   * Bell Tower Trail false 0.0 0.5 EASY Bike Run * Red Brick Road true 0.0 1.5 MODERATE Run |
| testNewActivityInvalidName  (Noah Benveniste) | **Preconditions: testStartup, testLoadFile pass**  Navigate to the Activities tab  Select **Add Activity** from the Activity drop-down menu located at the top of the UI  In the name field, hit the spacebar once  In the description field, type **description**  Leave Need Snow unchecked  Type **1** for the Snow Boundary  Click **Add**  Check results | An error message pops up saying “Activity name must be non-whitespace”  All existing Activities are unchanged | An error message pops up saying “Activity name must be non-whitespace”  All existing Activities are unchanged |
| testNewActivityInvalidDescription  (Noah Benveniste) | **testStartup, testLoadFile, testNewActivityInvalidName pass**  In the name field, type **Name**  Clear the description field and hit the spacebar once  Leave Need Snow unchecked  Type **1** for the Snow Boundary  Click **Add**  Check results | An error message pops up saying “Activity description must be non-whitespace”  All existing Activities are unchanged | An error message pops up saying “Activity description must be non-whitespace”  All existing Activities are unchanged |
| testNewActivityInvalidSnowBoundary | **testStartup, testLoadFile, testNewActivityInvalidName, testNewActivityInvalidDescription pass**  Leave the name field as is  In the description field, type **Description**  Leave Need Snow unchecked  In the Snow Boundary field, type **ABC**  Click **Add**  Check results | An error message pops up saying “Snow boundary must be a non-negative integer”  All existing activities are unchanged | An error message pops up saying “Snow boundary must be a non-negative integer”  All existing activities are unchanged |
| testNewActivityFront  (Noah Benveniste) | **Preconditions: testStartup, testLoadFile pass**  Navigate to the Activities tab  Select **Add Activity** from the Activity drop-down menu located at the top of the UI  Enter **Archery** into the Activity Name field  Enter **Learn to shoot a bow and arrow** into the Activity Description field  Leave the Need Snow field unchecked  Enter **6** into the Snow Boundary field  Click the Add button  Check results | All original activities are left unchanged. A new activity with the following parameters is now present at the top of the list:  act-3, Archery, Learn to shoot a bow and arrow, false, 6 | All original activities are left unchanged. A new activity with the following parameters is now present at the top of the list:  act-3, Archery, Learn to shoot a bow and arrow, false, 6 |
| testNewActivityMid  (Noah Benveniste) | **Preconditions: testStartup, testLoadFile pass**  Navigate to the Activities tab  Select **Add Activity**  Enter **Skateboard** into the name field  Enter **Skateboarding** into the description field  Leave Need Snow unchecked  Enter **1** for the snow boundary  Click **Add**  Check results | All original activities are left unchanged. A new activity with the following parameters is now present in the middle of the list, between Run and Ski:  act-4, Skateboard, Skateboarding, false, 1 |  |
| testNewActivityEnd  (Noah Benveniste) | **Preconditions: testStartup, testLoadFile pass**  Navigate to the Activities tab  Select **Add Activity**  Enter **Tennis** into the name field  Enter **Tennis lessons** into the description field  Leave Need Snow unchecked  Enter **1** for the snow boundary  Click **Add**  Check results | All original activities are left unchanged. A new activity with the following parameters is now present at the end of the list:  act-5, Tennis, Tennis lessons, false, 1 | All original activities are left unchanged. A new activity with the following parameters is now present at the end of the list:  act-5, Tennis, Tennis lessons, false, 1 |
| testCancelAddActivity  (Noah Benveniste) | **Preconditions: testStartup, testLoadFile pass**  Navigate to the Activities tab  Select **Add Activity**  Enter **Jog** into the name field  Enter **Jogging** into the description field  Leave need snow unchecked  Enter **1** for the snow boundary  Click **Cancel**  Check results | The activity list is unchanged; all pre-existing activities are unchanged, the edit pane is reset to its default with all fields cleared | The activity list is unchanged; all pre-existing activities are unchanged, the edit pane is reset to its default with all fields cleared |
| testTryDuplicateActivity  (Noah Benveniste) | **Preconditions: testStartup, testLoadFile pass**  Navigate to the Activities tab  Select **Add Activity**  Enter **Tennis** into the name field  Enter **Tennis lessons** into the description field  Leave Need Snow unchecked  Enter **2** for the snow boundary  Click **Add**  Check results | An error message pops up saying “Activity name must be unique”  All existing Activities are left unchanged | An error message pops up saying “Activity name must be unique”  All existing Activities are left unchanged |
| testEditActivity  (Noah Benveniste) | **Preconditions: testStartup, testLoadFile pass**  Navigate to the Activities tab  Select **Cancel** to exit out of the add state from the previous test  Select **Ski** from the list  In the description box, delete the current description and type **Skiing**  Click **Save**  Check results | The activity Ski now has a description that says **Skiing**; all other activities are unchanged | The activity Ski now has a description that says **Skiing**; all other activities are unchanged |
| testCancelEditActivity  (Noah Benveniste) | **Preconditions: testStartup, testLoadFile pass**  Navigate to the Activities tab  Select **Run** from the list  Change the snow boundary to 10  Click **Cancel**  Check results | No changes were made; Run still has a snow boundary of 5; All other activities are unchanged. | No changes were made; Run still has a snow boundary of 5; All other activities are unchanged. |
| testNewParkInvalidName  (Noah Benveniste) | **Preconditions: testStartup, testLoadFile pass**  Navigate to the Parks tab  Select **New Park** from the Parks drop down menu at the top of the UI  In the name field, hit the spacebar once  In the description field, type **Description**  Set the snow change to **0**  Click **Add**  Check results | An error message pops up saying “Park name must be non-whitespace”  All existing Parks are left unchanged | An error message pops up saying “Park name must be non-whitespace”  All existing Parks are left unchanged |
| testNewParkInvalidDescription  (Noah Benveniste) | **Preconditions: testStartup, testLoadFile, testNewParkInvalidName pass**  In the name field, type **Name**  Clear the description field, hit the spacebar once  Leave the snow change  Click **Add**  Check results | An error message pops up saying “Park description must be non-whitespace”  All existing Parks are left unchanged | An error message pops up saying “Park description must be non-whitespace”  All existing Parks are left unchanged |
| testNewParkInvalidSnow  (Noah Benveniste) | **Preconditions: testStartup, testLoadFile, testNewParkInvalidDescription pass**  Leave the name field  In the description field, type **Description**  Clear the snow change field and type **ABC**  Select **Add**  Check results | An error message pops up saying “Snowfall/change must be a double”  All existing Parks are left unchanged | An error message pops up saying “Snowfall/change must be a double”  All existing Parks are left unchanged |
| testNewParkFront  (Noah Benveniste) | **Preconditions: testStartup, testLoadFile pass**  Navigate to the Parks tab  Select **New Park** from the Parks drop down menu at the top of the UI  In the name field, enter **Avent Ferry Park**  In the description field, enter **Park located off of Avent Ferry road**  Set the snowfall to 0  Click **Add**  Check results | All original Parks are left unchanged. A new Park with the following parameters is now present at the top of the list:  park-2, Avent Ferry Park, Park located off of Avent Ferry road, 0.0 | All original Parks are left unchanged. A new Park with the following parameters is now present at the top of the list:  park-2, Avent Ferry Park, Park located off of Avent Ferry road, 0.0 |
| testNewParkMid  (Noah Benveniste) | **Preconditions: testStartup, testLoadFile pass**  Navigate to the Parks tab  Select **New Park**  In the name field, enter **Central Park**  In the description field, enter **Park located in NYC**  Set the snow change to **0**  Click **Add**  Check results | All original Parks are left unchanged. A new Park with the following parameters if now present between Centennial Campus and Main Campus:  park-3, Central Park, Park located in NYC, 0.0 | All original Parks are left unchanged. A new Park with the following parameters if now present between Centennial Campus and Main Campus:  park-3, Central Park, Park located in NYC, 0.0 |
| testNewParkEnd  (Noah Benveniste) | **Preconditions: testStartup, testLoadFile pass**  Navigate to the Parks tab  Select **New Park**  In the name field, enter **Pullen Park**  In the description field, enter **Park located in central Raleigh near NCSU campus**  Set the snowfall to 0  Click **Add**  Check results | All original Parks are left unchanged. A new Park with the following parameters is now present at the end of the list:  park-4, Pullen Park, Park located in central Raleigh near NCSU campus, 0.0 | All original Parks are left unchanged. A new Park with the following parameters is now present at the end of the list:  park-4, Pullen Park, Park located in central Raleigh near NCSU campus, 0.0 |
| testCancelAddPark  (Noah Benveniste) | **Preconditions: testStartup, testLoadFile pass**  Navigate to the Parks tab  Select **New Park**  In the name field, enter **New Park**  In the description field, enter **Description**  Set the snowfall to 0  Click **Cancel**  Check results | The list of parks remains unchanged; no pre-existing parks were changed in any way | The list of parks remains unchanged; no pre-existing parks were changed in any way |
| testTryDuplicatePark  (Noah Benveniste) | **Preconditions: testStartup, testLoadFile pass**  Navigate to the Parks tab  Select **New Park**  In the name field, enter **Pullen Park**  In the description field, enter **Park located in central Raleigh near NCSU campus**  Leave the snow change at **0**  Click **Add**  Check results | An error message pops up saying “Park name must be unique”  All existing Parks are left unchanged | An error message pops up saying “Park name must be unique”  All existing Parks are left unchanged |
| testEditPark  (Noah Benveniste) | **Preconditions: testStartup, testLoadFile pass**  Navigate to the Parks tab  Select cancel to exit the add state from the previous test  Select Centennial Campus  Enter 2.5 for the latest snowfall  Click **Save**  Check results | All three trails for Centennial Campus should now have 2.5 for their Snow field.  Navigating to the Filter Trails tab and filtering Centennial campus for bike trails, none should be available. | All three trails for Centennial Campus should now have 2.5 for their Snow field.  Navigating to the Filter Trails tab and filtering Centennial campus for bike trails, none should be available. |
| testEditParkNoNegativeSnow  (Noah Benveniste) | **Preconditions: testStartup, testLoadFile pass**  Navigate to the Parks tab  Select Centennial Campus  Enter -3 for the latest snowfall  Click **Save**  Check results | All three trails for Centennial Campus should now have zero snow, not -0.5 | All three trails for Centennial Campus should now have zero snow, not -0.5 |
| testCancelEditPark  (Noah Benveniste) | **Preconditions: testStartup, testLoadFile pass**  Navigate to the Parks tab  Select Centennial Campus  Enter 2.5 for the latest snowfall  Click **Cancel**  Check results | The snowfall for the trails for Centennial Campus are unchanged | The snowfall for the trails for Centennial Campus are unchanged |
| testNewTrailInvalidName  (Noah Benveniste) | **Preconditions: testStartup, testLoadFile pass**  Navigate to the **Main Campus** tab  In the Trails drop-down menu at the top of the UI, select **Add new trail**  In the name field, hit the spacebar once  In the snow field, enter 0  In the distance field, enter 0  Leave maintenance unchecked, difficulty as EASY, and all activities unchecked  Select **Add**  Check results | Error message pops up saying “Trail name must be non-whitespace”  Trail list for Main Campus is unchanged | Error message pops up saying “Trail name must be non-whitespace”  Trail list for Main Campus is unchanged |
| testNewTrailInvalidSnow  (Noah Benveniste) | **Preconditions: testStartup, testLoadFile, testNewTrailInvalidName pass**  In the name field, type **New Trail**  In the snow field, type **ABC**  Leave all other parameters unchanged from previous test  Select **Add**  Check results | Error message pops up saying “Snow fall must be a double”  Trail list for Main Campus is unchanged | Error message pops up saying “Snow fall must be a double”  Trail list for Main Campus is unchanged |
| testNewTrailInvalidDistance  (Noah Benveniste) | **Preconditions: testStartup, testLoadFile, testNewTrailInvalidName, testNewTrailInvalidSnow pass**  Set the snow field back to 0  Set the distance to -1  Leave all other parameters  unchanged from previous test  Select **Add**  Check results | The trail is not added, system exits add mode, trail list for Main Campus is unchanged. | The trail is not added, system exits add mode, trail list for Main Campus is unchanged. |
| testNewTrailNewPark  (Noah Benveniste) | **Preconditions: testStartup, testLoadFile, testNewParkFront pass**  Navigate to the **Avent Ferry Park** tab  In the **Trails** drop-down menu, select **Add new trail**  Enter the following parameters:  Name:Main Trail  Snow: 0.0  Distance:2.0  Maintenance:unchecked  Difficulty: challenging  Activities: Archery, Bike, Run  Select **Add**  Check results | A new trail with the following parameters is created, it is the only trail in this tab:  ID:park-2-0  Name:Main Trail  Snow: 0.0  Distance:2.0  Maintenance:unchecked  Difficulty: challenging  Activities: Archery, Bike, Run | A new trail with the following parameters is created, it is the only trail in this tab:  ID:park-2-0  Name:Main Trail  Snow: 0.0  Distance:2.0  Maintenance:unchecked  Difficulty: challenging  Activities: Archery, Bike, Run |
| testNewTrailFront  (Noah Benveniste) | **Preconditions: testStartup, testLoadFile pass**  Navigate to the **Main Campus** tab  In the Trails drop-down menu, select **Add new trail**  Enter the following parameters:  Name: Avent Ferry Trail  Snow: 3.0  Distance: 4.0  Maintenance: false  Difficulty: EXTREME  Activities: Run, Skateboard, Ski  Select **Add**  Check results | A new activity is added to the top of the list with the following parameters:  ID:park-1-2  Name: Avent Ferry Trail  Snow: 3.0  Distance: 4.0  Maintenance: false  Difficulty: EXTREME  Activities: Run, Skateboard, Ski | A new activity is added to the top of the list with the following parameters:  ID:park-1-2  Name: Avent Ferry Trail  Snow: 3.0  Distance: 4.0  Maintenance: false  Difficulty: EXTREME  Activities: Run, Skateboard, Ski |
| testNewTrailMid  (Noah Benveniste) | **Preconditions: testStartup, testLoadFile pass**  Navigate to the **Main Campus** tab  In the Trails drop-down menu, select **Add new trail**  Enter the following parameters:  Name: Hillsborough Street Trail  Snow: 2.0  Distance: 3.2  Maintenance: true  Difficulty: EASY  Activities: Archery, Tennis  Select **Add**  Check results | A new trail is added between Bell Tower Trail and Red Brick Road with the following parameters:  ID:park-1-3  Name: Hillsborough Street Trail  Snow: 2.0  Distance: 3.2  Maintenance: true  Difficulty: EASY  Activities: Archery, Tennis | A new trail is added between Bell Tower Trail and Red Brick Road with the following parameters:  ID:park-1-3  Name: Hillsborough Street Trail  Snow: 2.0  Distance: 3.2  Maintenance: true  Difficulty: EASY  Activities: Archery, Tennis |
| testNewTrailBack  (Noah Benveniste) | **Preconditions: testStartup, testLoadFile pass**  Navigate to the **Main Campus** tab  In the Trails drop-down menu, select **Add new trail**  Enter the following parameters:  Name:Western Blvd Trail  Snow: 0.0  Distance: 0.55  Maintenance: false  Difficulty: Difficult  Activities:Archery, Bike, Run, Skateboard, Ski, Tennis  Select **Add**  Check results | A new trail is added to the end of the list with the following parameters:  ID: park-1-4  Name:Western Blvd Trail  Snow: 0.0  Distance: 0.55  Maintenance: false  Difficulty: Difficult  Activities:Archery, Bike, Run, Skateboard, Ski, Tennis | A new trail is added to the end of the list with the following parameters:  ID: park-1-4  Name:Western Blvd Trail  Snow: 0.0  Distance: 0.55  Maintenance: false  Difficulty: Difficult  Activities:Archery, Bike, Run, Skateboard, Ski, Tennis |
| testCancelAddTrail  (Noah Benveniste) | **Preconditions: testStartup, testLoadFile pass**  Navigate to the **Main Campus** tab  In the Trails drop-down menu, select **Add new trail**  Enter the following parameters:  Name: New Trail  Snow: 0.0  Distance: 1.0  Maintenance: false  Difficulty: EASY  Activities: none  Select **Cancel**  Check results | The trail list for Main Campus is unchanged, no trails were added, the edit pane is cleared to its default state | The trail list for Main Campus is unchanged, no trails were added, the edit pane is cleared to its default state |
| testTryAddDuplicateTrail  (Noah Benveniste) | **Preconditions: testStartup, testLoadFile pass**  Navigate to the **Main Campus** tab  In the Trails drop-down menu, select **Add trail**  Enter the following parameters:  Name:Western Blvd Trail  Snow: 0.0  Distance: 0.55  Maintenance: false  Difficulty: Difficult  Activities:  Select **Add**  Check results | An error message pops up saying “Cannot add duplicate elements”  The trail list for Main Campus is unchanged | An error message pops up saying “Cannot add duplicate elements”  The trail list for Main Campus is unchanged |
| testEditTrail  (Noah Benveniste) | **Preconditions: testStartup, testLoadFile pass**  Navigate to the **Main Campus** tab  Select Cancel to exit out of the Add mode from the previous test  Select Bell Tower Trail  Set Closed for Maintenance to true by checking the box  Set the snow to 3.4  Click save  Check results | Bell Tower Trail now has its closed for maintenance status set to true and its snow level set to 3.4 in the table. Navigating to filter trails and selecting Main Campus as the park, Bell Tower Trail now appears under none of the filters | Bell Tower Trail now has its closed for maintenance status set to true and its snow level set to 3.4 in the table. Navigating to filter trails and selecting Main Campus as the park, Bell Tower Trail now appears under none of the filters |
| testCancelEditTrail  (Noah Benveniste) | **Preconditions: testStartup, testLoadFile pass**  Navigate to the **Main Campus** tab  Select Avent Ferry Trail  Enter 0 for the snow level  Select **Cancel**  Check results | The trail list is unchanged, Avent Ferry Trail has its snow at 3.0, the edit pane is cleared | The trail list is unchanged, Avent Ferry Trail has its snow at 3.0, the edit pane is cleared |
| testRemoveTrailFront  (Noah Benveniste) | **Preconditions: testStartup, testLoadFile pass**  Navigate to the **Centennial Campus** tab  Select **Hunt Trail**  In the Trails drop-down menu, select **Delete trail**  Select **Yes** on the pop-up confirmation window  Check results | Hunt Trail was removed from the list, Lake Trail is now the top of the list. Navigating to the filter trails tab, Hunt Trail now appears under none of the filters for Centennial Campus | Hunt Trail was removed from the list, Lake Trail is now the top of the list. Navigating to the filter trails tab, Hunt Trail now appears under none of the filters for Centennial Campus |
| testRemoveTrailMid  (Noah Benveniste) | **Preconditions: testStartup, testLoadFile pass**  Navigate to the **Main Campus** tab  Select **Red Brick Road**  In the Trails drop-down menu, select **Delete trail**  Select **Yes** on the pop-up confirmation window  Check results | Red Brick Road trail is removed from the list. Hillsborough Street Trail is now followed by Western Blvd Trail. Navigating to filter trails, Red Brick Road appears under none of the filters for main campus | Red Brick Road trail is removed from the list. Hillsborough Street Trail is now followed by Western Blvd Trail. Navigating to filter trails, Red Brick Road appears under none of the filters for main campus |
| testRemoveTrailBack  (Noah Benveniste | **Preconditions: testStartup, testLoadFile pass**  Navigate to the **Centennial Campus** tab  Select **Oval Hill**  In the Trails drop-down menu, select **Delete trail**  Select **Yes** on the pop-up confirmation window  Check results | Centennial Campus contains only Lake Trail. Oval Hill does not appear under any of the filters for Centennial Campus under the filter trails tab. | Centennial Campus contains only Lake Trail. Oval Hill does not appear under any of the filters for Centennial Campus under the filter trails tab. |
| testSaveToFile  (Noah Benveniste) | **Preconditions: testStartup, testLoadFile, testNewActivityFront,testNewActivityMid, testNewActivityBack, testEditActivity, testNewParkFront, testNewParkMid, testNewParkBack, testEditPark, testNewTrailNewPark, testNewTrailFront, testNewTrailMid, testNewTrailBack, testEditTrail, testRemoveTrailFront, testRemoveTrailMid, testRemoveTrailBack pass**  Select the File dropdown menu  Select Save File  Name the file **BBTP\_Actual.md** and save  Exit the GUI  Open the file  Check results, compare with **BBTP\_Expected.md** | File should contain the following data:  # Activities  \* Archery Learn to shoot a bow and arrow false 6  \* Bike Biking false 2  \* Run Running false 5  \* Skateboard Skateboarding false 6  \* Ski Skiing true 25  \* Tennis Tennis lessons false 1  # Parks  \* Avent Ferry Park Park located off of Avent Ferry road 0.0  \* Centennial Campus Park contained on Engineering Campus -3.0  \* Central Park Park located in NYC 0.0  \* Main Campus Lovely park on Main Campus 0.0  \* Pullen Park Park located in central Raleigh near NCSU campus 0.0  # Trails  \* Centennial Campus Lake Trail true 0.0 2.5 EASY Run  \* Main Campus Avent Ferry Trail false 3.0 4.0 EXTREME Run Skateboard Ski  \* Main Campus Bell Tower Trail true 3.4 0.5 EASY Bike Run  \* Main Campus Hillsborough Street Trail true 2.0 3.2 EASY Archery Tennis  \* Main Campus Western Blvd Trail false 0.0 0.55 DIFFICULT Archery Bike Run Skateboard Ski Tennis  \* Avent Ferry Park Main Trail false 0.0 2.0 CHALLENGING Archery Bike Run | File contains the following data:  # Activities  \* Archery Learn to shoot a bow and arrow false 6  \* Bike Biking false 2  \* Run Running false 5  \* Skateboard Skateboarding false 6  \* Ski Skiing true 25  \* Tennis Tennis lessons false 1  # Parks  \* Avent Ferry Park Park located off of Avent Ferry road 0.0  \* Centennial Campus Park contained on Engineering Campus -3.0  \* Central Park Park located in NYC 0.0  \* Main Campus Lovely park on Main Campus 0.0  \* Pullen Park Park located in central Raleigh near NCSU campus 0.0  # Trails  \* Centennial Ca  mpus Lake Trail true 0.0 2.5 EASY Run  \* Main Campus Avent Ferry Trail false 3.0 4.0 EXTREME Run Skateboard Ski  \* Main Campus Bell Tower Trail true 3.4 0.5 EASY Bike Run  \* Main Campus Hillsborough Street Trail true 2.0 3.2 EASY Archery Tennis  \* Main Campus Western Blvd Trail false 0.0 0.55 DIFFICULT Archery Bike Run Skateboard Ski Tennis  \* Avent Ferry Park Main Trail false 0.0 2.0 CHALLENGING Archery Bike Run |

**Document Revision History**

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| **Date** | **Author** | **Change Description** |
| **11/10/17** | Noah Benveniste | * Wrote black box tests |
| **11/29/17** | Noah Benveniste, Daniel Mills | * Outlined goals for scope of final acceptance testing * Created a skeleton black box test plan for final acceptance testing |
| **11/30/17** | Noah Benveniste | * Wrote more formal tests based on skeleton * Initial run of tests |
| **12/1/17** | Noah Benveniste  Daniel Mills | * Added and executed tests. * Updated introduction, require files, and “please note” sections. * Executed tests. |