Lets Play Football

Project Number: 2

Test Plan

Version Date: 12/3/2016

Effective Date: 12/5/2016

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**Purpose of Test Plan:**

* To find errors that were made while developing the program
* Make sure program can handle any unexpected user input
* Make sure program follows all requirements of the project rules

**Scope of Test Plan:**

* Dijkstras algorithm is implemented correctly so all stadiums are visited in the correct order
* Dijkstras algorithm is implemented correctly so stadiums selected by the football fans are visited in the correct order
* Total revenue for each stadium and grand total for the trip is calculated correctly at the end of every trip
* Total seating capacity is updated after new stadiums are added
* Administrator maintenance
  + Admin can add a souvenir
  + Admin can delete a souvenir
  + Admin can change price of souvenir
  + Amin can change a teams stadium name and seating capacity

**Test Environment:**

* QT Creator

**Test Technique:**

* Black box testing will be used

**Test Strategy:**

1. Each member will test 2 items in the scope of the test plan
2. Test will be done after each item is done and when I new item is implemented to make sure previous is still working
3. If an error is found when testing, all testing for that item will stop and member coding that item will go and debug it.
4. Software needed: QT, SqlLite(if necessary)
5. Approval: testing is done when no errors are reported and on approval of team members

**Test Cases:**

1. Dijkstras algorithm is implemented correctly so all stadiums are visited in the correct order.
   1. Scenario: Football fan will visit all the NFL stadiums. The order they will visit them will be dependent on dijkstras algorithm.
   2. Description: All stadiums in database will be visited
   3. Tester: Nick
   4. Date of Testing: 12/5/2016
   5. Status: Passed

Expected Dijkstras Order and Mileage

|  |  |  |
| --- | --- | --- |
|  | Team | Miles |
| 1 | Los Angeles | 0 |
| 2 | San Francisco 49ers | 200 |
| 3 | Oakland Raiders | 225 |
| 4 | San Diego Chargers | 225 |
| 5 | Arizona Cardinals | 525 |
| 6 | Seattle Seahawks | 905 |
| 7 | Denver Broncos | 1055 |
| 8 | Dallas Cowboys | 1395 |
| 9 | Minnesota Vikings | 1500 |
| 10 | Kansas City Chiefs | 1615 |
| 11 | Houston Texans | 1625 |
| 12 | Green Bay Packers | 1800 |
| 13 | Chicago Bears | 1880 |
| 14 | Indianapolis Colts | 1930 |
| 15 | New Orleans Saints | 1945 |
| 16 | Tennessee Titans | 2085 |
| 17 | Atlanta Falcons | 2135 |
| 18 | Detroit Lions | 2170 |
| 19 | Cincinnati Bengals | 2180 |
| 20 | Buffalo Bills | 2230 |
| 21 | Cleveland Browns | 2260 |
| 22 | Carolina Panthers | 2366 |
| 23 | Pittsburgh Steelers | 2375 |
| 24 | Tampa Bay Buccaneers | 2425 |
| 25 | Miami Dolphins | 2590 |
| 26 | Jacksonville Jaguars | 2595 |
| 27 | New England Patriots | 2659 |
| 28 | Philadelphia Eagles | 2690 |
| 29 | Washington Redskins | 2700 |
| 30 | New York Giants | 2740 |
| 31 | New York Jets | 2740 |
| 32 | Baltimore Ravens | 2770 |

1. Dijkstras algorithm is implemented correctly so stadiums selected by the football fans are visited in the correct order.
   1. Scenario: Football fan will select which stadiums they want to visit and the order will be determined by dijkstras algorithm.
   2. Description: Football fan will visit the following teams stadiums starting at Los Angeles Rams
      1. Los Angeles Rams
      2. Carolina Panthers
      3. Seattle Seahawks
      4. Cleveland Browns
      5. New Orleans Saints
      6. New York Jets
      7. Tennessee Titans
      8. Oakland Raiders
      9. Chicago Bears
      10. Arizona Cardinals
   3. Tester: Jason
   4. Date of Testing: 12/4/2016
   5. Status: Passed

Expected Dijkstras Order and Mileage

|  |  |  |
| --- | --- | --- |
|  | Team | Miles |
| 1 | Los Angeles | 0 |
| 2 | Oakland Raiders | 225 |
| 3 | Arizona Cardinals | 525 |
| 4 | Seattle Seahawks | 905 |
| 5 | Chicago Bears | 1880 |
| 6 | New Orlean Saints | 1945 |
| 7 | Tennessee Titans | 2085 |
| 8 | Cleveland Browns | 2260 |
| 9 | Carolina Panthers | 2366 |
| 10 | New York Jets | 2740 |

1. Total revenue for each stadium and grand total for the trip is calculated correctly at the end of every trip
   1. Scenario: Football fan will visit 5 stadiums and but items from each stadium.
   2. Description: Football fan will buy the following items:
      1. Los Angeles Rams
         1. Signed Helmet(1)
         2. Team Picture(2)
      2. New York Jets
         1. Autographed football (1)
         2. Team Jersey(1)
      3. Buffalo Bills
         1. Team Pennant(4)
         2. Team Picture(1)
         3. Autographed football(1)
      4. Denver Broncos
         1. Team Jersey(1)
      5. Arizona Cardinals
         1. Signed Helmet(2)
         2. Team picture(4)
   3. Tester: Ashly
   4. Date of testing: 12/4/2016
   5. Status: passed

Expected Input and Output

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Team | Item | Quantity | Price | Total |
| Los Angeles Rams | Signed Helmet | 1 | 72.99 | 72.99 |
|  | Team Picture | 2 | 19.99 | 39.98 |
| New York Jets | Autographed football | 1 | 49.39 | 49.39 |
|  | Team Jersey | 1 | 185.99 | 185.99 |
| Buffalo Bills | Team Pennant | 4 | 17.99 | 71.96 |
|  | Team Picture | 1 | 19.99 | 19.99 |
|  | Autographed football | 1 | 49.39 | 49.39 |
| Denver Broncos | Team Jersey | 1 | 185.99 | 185.99 |
| Arizona Cardinals | Signed Helmet | 2 | 72.99 | 145.98 |
|  | Team Picture | 4 | 19.99 | 79.96 |
| Grand Total |  |  |  | 901.62 |

1. Total seating capacity is updated after new stadiums are added.
   1. Scenario: Seating capacity is updated after new team is added
   2. Description: Total Seating capacity is updated after Las Vegas is added
   3. Tester: Nick
   4. Date of testing: 11/27/2016
   5. Status: passed

|  |  |
| --- | --- |
| Seating Capacity before Update | Seating Capacity After Update |
| 2,287,488 | 2,263,881 |

1. Admin can add a souvenir to the database
   1. Scenario: a souvenir item along with its price can be added to a teams list of souvenirs
   2. Description: Admin will add Jacket to Los Angeles Rams for $59.99 and the table will be updated right when item is added
   3. Tester: Jason
   4. Date of Testing: 12/5/2016
   5. Status: passed
2. Admin can delete a Souvenir
   1. Scenario: Admin can delete a souvenir from a teams list of souvenirs
   2. Description: Admin will delete a signed helmet from the Los Angeles Rams and the table will be updated as soon as item is deleted
   3. Tester: Ashly
   4. Date of Testing: 12/5/2016
   5. Status: passed
3. Admin can change price of souvenir
   1. Scenario: the price of a souvenir for a team can be modified.
   2. Description: The price of an autographed football for the Los Denver Broncos will be changed to $39.99.
   3. Tester: Noah, Ashly
   4. Date of Testing: 12/5/2016
   5. Status:
4. Admin can change the stadiums name and seating capacity for a team
   1. Scenario: The name and seating capacity for a teams stadium can be modified by the user
   2. Description: the Los Angeles Rams stadium name will be changed to Farmers Field and seating capacity will be changed to 72,000.
   3. Tester: Noah, Nick, Jason
   4. Date of Testing: 12/5/2016
   5. Status: passed