Team JPEG

Scrum Master: Jesus Sanchez

Product Owner: Sabrina Dang

Members: Agnes Ohide, Jason Zhang, Lee Evans

Agile Stories

1. As a fan, I would like to be able to see the information related to a specific football team, so that I can view the information about the team I am interested in.
   1. **Story Point Value:** 1
   2. **Priority:** Sprint 1
   3. **Assignee:** Jesus Sanchez
   4. **Definition of Done:** 
      1. The fan will be shown a list of the information for all teams and they will be able to select the specific team whose information they would like to see and that team’s information will be highlighted.
   5. **Detailed Description:**
      1. A table will display the information for all the teams in the database. The user will be provided with a combo box that allows them to select the name of a specific team whose information they would like to see. Once a team name is selected, the user will be taken to the row in the table where the team’s information is and the row will be highlighted.
   6. **Assumptions:**
      1. Database has been created.
      2. Unsorted map class has been created.
      3. Homepage has been created.
   7. **Tasks & Tests:**
      1. Add a table widget and display information for all teams.
      2. Add a combo box that will allow the fan to select a team.
      3. Take the fan to the row containing the selected team's information and highlight the row.
2. As a fan, I would like to be able to see a list of the NFL teams sorted by team name so that I can easily find a specific team.
   1. **Story Point Value:** 1
   2. **Priority:** Sprint 1
   3. **Assignee:** Lee Evans
   4. **Definition of Done:** 
      1. The fan will be shown a list of the NFL teams sorted by name.
   5. **Detailed Description:**
      1. A table will display the names of the NFL teams sorted by name.
   6. **Assumptions:**
      1. Database has been created.
      2. Unsorted map class has been created.
      3. Homepage has been created.
   7. **Tasks & Tests:**
      1. Add a table widget and display the names of the NFL teams.
         1. Use Qt::AscendingOrder to sort by team name.
3. As a fan, I would like to be able to see a list of the NFL stadiums and their corresponding team name sorted by stadium name so that I can easily find a specific stadium.
   1. **Story Point Value:** 1
   2. **Priority:** Sprint 1
   3. **Assignee:** Sabrina Dang
   4. **Definition of Done:** 
      1. The fan will be shown a list of the NFL stadiums with their corresponding team name sorted by stadium name.
   5. **Detailed Description:**
      1. A table will display the names of the NFL stadiums with their corresponding team name, sorted by the name of the stadium.
   6. **Assumptions:**
      1. Database has been created.
      2. Unsorted map class has been created.
      3. Homepage has been created.
   7. **Tasks & Tests:**
      1. Add a table widget and display the names of the NFL stadiums and their corresponding team name.
         1. Use Qt::AscendingOrder to sort by stadium name.
4. As a fan, I would like to be able to see a list of the teams sorted by name and be able to filter the list by American Football Conference teams or National Football Conference teams so that I can view the teams in the conference I am interested in.
   1. **Story Point Value:** 2
   2. **Priority:** Sprint 1
   3. **Assignee:** Jesus Sanchez
   4. **Definition of Done:** 
      1. The fan will be shown a table of the teams sorted by name along with their corresponding conference and they will have the ability to filter the list to display only the teams in a specific conference.
   5. **Detailed Description:**
      1. A table will display the names of the NFL teams with their corresponding conference, sorted by team name. The fan will be able to toggle which conference teams are shown by checking one of two checkboxes.
   6. **Assumptions:**
      1. Database has been created.
      2. Unsorted map class has been created.
      3. Homepage has been created.
   7. **Tasks & Tests:**
      1. Add a table and display the name of the NFL teams and their conference, sorted by team name.
      2. Add 2 checkboxes “American Football Conference Only” and “National Football Conference Only” that display only the corresponding teams.
         1. Show only the corresponding teams when either checkbox is checked.
         2. Show all teams when neither checkbox is checked.
5. As a fan, I would like to be able to see a list of only the stadiums that have an “open” stadium roof type and the number of stadiums with this roof type so that I can see how many stadiums have an “open” stadium roof type.
   1. **Story Point Value:** 1
   2. **Priority:** Sprint 1
   3. **Assignee:** Jason Zhang
   4. **Definition of Done:** 
      1. The fan will be shown a table of the stadiums with an “open” stadium roof type and their corresponding team name, sorted by stadium name, and the number of stadiums with this roof type will be displayed.
   5. **Detailed Description:**
      1. A table will display the stadiums with an “open” stadium roof type, sorted by stadium name, and their corresponding team name. A label under the table will display the total number of stadiums with this roof type.
   6. **Assumptions:**
      1. Database has been created.
      2. Unsorted map class has been created.
      3. Homepage has been created.
   7. **Tasks & Tests:**
      1. Add a table and display the name of the stadiums with an “open” stadium roof type with their corresponding team name.
         1. Use Qt::AscendingOrder to sort by team name.
      2. Add a label that displays the total number of stadiums with an “open” stadium roof type.
         1. Count the number of stadiums with this roof type to ensure the displayed value is correct.
            1. # Open Roof w/ out San Diego Sailors: 24
            2. # Open Roof w/ San Diego Sailors: 25
6. As a fan, I would like to be able to see a list of NFL star players and their corresponding team name sorted by team name so that I can easily find a specific team’s star player.
   1. **Story Point Value:** 1
   2. **Priority:** Sprint 1
   3. **Assignee:** Frances Ohide
   4. **Definition of Done:** 
      1. The fan will be shown a table that shows the NFL star players and their corresponding team sorted by team name.
   5. **Detailed Description:**
      1. A table will be used to display the name of the team and their star player and the list will be sorted by team name.
   6. **Assumptions:**
      1. Database has been created.
      2. Unsorted map class has been created.
      3. Homepage has been created.
   7. **Tasks & Tests:**
      1. Add a table and display the name of the team and their star player.
         1. Use Qt::AscendingOrder to sort by team name.
7. As a fan, I would like to be able to see a list of NFL stadiums and their corresponding teams sorted from smallest to largest seating capacity as well as the total seating capacity for all NFL teams displayed so that I can easily see how many seats are available at each stadium.
   1. **Story Point Value:** 2
   2. **Priority:** Sprint 1
   3. **Assignee:** Jesus Sanchez
   4. **Definition of Done:** 
      1. The fan will be shown a list of NFL stadiums with their corresponding team name sorted from smallest to largest seating capacity, and the total seating capacity for all NFL teams will be displayed.
   5. **Detailed Description:**
      1. A table will display the team’s name, stadium name, and the seating capacity for all NFL teams and the teams will be sorted by seating capacity. A label under the table will display the total seating capacity for all NFL teams.
   6. **Assumptions:**
      1. Database has been created.
      2. Unsorted map class has been created.
      3. Homepage has been created.
   7. **Tasks & Tests:**
      1. Add a table and display the name of the team, their stadium name, and the stadium’s seating capacity.
         1. Use Qt::AscendingOrder to sort the stadiums by seating capacity.
      2. Add label to display the total seating capacity for all NFL teams.
         1. Add up seating capacity of all stadiums by hand to make sure calculation by program is correct.
            1. Seating Capacity without San Diego Sailors: 2,162,427
            2. Seating Capacity without San Diego Sailors: 2,233,927
      3. Make sure the same stadium is not counted twice.
8. As a fan, I would like to be able to see a list of the NFL teams, their stadium name, their surface type, and their corresponding location sorted by surface type so that I can easily see the stadiums with the same type of surface.
   1. **Story Point Value:** 1
   2. **Priority:** Sprint 1
   3. **Assignee:** Jason Zhang
   4. **Definition of Done:**
      1. The fan will be shown a table with the NFL teams, their stadium name, the stadium surface type, and the stadium’s location sorted by the stadium’s surface type.
   5. **Detailed Description:**
      1. A table will display the NFL teams with their stadium name, surface type, and location with the teams being sorted by the surface type.
   6. **Assumptions:**
      1. Database has been created.
      2. Unsorted map class has been created.
      3. Homepage has been created.
   7. **Tasks & Tests:**
      1. Add a table and display the name, stadium name, surface type, and location for all NFL teams.
         1. Use Qt::AscendingSort to sort the teams by stadium surface type.
9. As a fan, I would like to visit any stadium of my choice starting at Los Angeles Memorial Coliseum traveling the shortest distance, and I would like to see the total distance traveled as well.
   1. **Story Point Value:** 5
   2. **Priority:** Sprint 3
   3. **Assignee:** Sabrina Dang
   4. **Definition of Done:**
      1. The list of NFL stadiums will be shown in a table in order of the most efficient route, and the distance traveled will be displayed.
   5. **Detailed Description:**
      1. A table will display the list of NFL stadiums in the most efficient route to visit them. The fan can click on a button to display the total distance traveled visiting all of the stadiums.
   6. **Assumptions:**
      1. Database has been created.
      2. Unsorted map class has been created.
      3. Homepage has been created.
      4. Plan a Trip window has been created.
      5. Dijkstra's or A\* Algorithm should be done.
   7. **Tasks & Tests:**
      1. Add a combo box with a list of stadiums to choose from.
      2. Add a table widget to keep track of the selected stadiums.
      3. Add a Calculate Trip button.
      4. Add a table widget that displays the list of possible souvenirs to buy.
      5. Add a Buy Souvenir button.
      6. Add a second table widget that contains the selected souvenirs that the fan wants to buy.
10. As a fan, I would like to plan a trip by being able to select the stadiums I would like to visit, in the order I select them, and be able to see the total distance of the trip.
    1. **Story Point Value:** 5
    2. **Priority:** Sprint 3
    3. **Assignee:** Lee Evans
    4. **Definition of Done:**
       1. The fan will be able to select the stadiums they would like to visit, the stadiums will be displayed in a table, in the order they were selected, and the total distance of the trip will also be displayed.
    5. **Detailed Description:**
       1. A combo box containing the list of all stadiums will be used to prompt the fan to select the starting stadium. Once the starting stadium has been selected, the fan will be prompted to select the other stadiums they would like to visit and the order they selected the stadiums in will be displayed in a table. The total distance traveled of the trip will be calculated and displayed.
    6. **Assumptions:**
       1. Database has been created.
       2. Unsorted map class has been created.
       3. Plan a Trip page has been created.
       4. Calculate total distance algorithm (any order) is done.
    7. **Tasks & Tests:**
       1. Add combo box with all stadium names to get starting stadium.
       2. Add combo box or table to get all other stadiums to be visited.
       3. Add “Order Given” option to “Custom Trip” page.
       4. Add table to display stadiums that will be visited.
       5. Implement calculate total distance algorithm.
       6. Add label to display distance traveled.
11. As a fan, I would like to be able to visit all of the stadiums, starting at Ford Field, by taking the most efficient route so that I will know the total distance I will travel.
    1. **Story Point Value:** 3
    2. **Priority:** Sprint 3
    3. **Assignee:** Frances Ohide
    4. **Definition of Done:**
       1. The fan will be shown the most efficient route in order to visit all of the NFL stadiums, and the total distance of their trip will be displayed.
    5. **Detailed Description:**
       1. The fan will be shown a table that displays the most efficient route that they should take in order to visit all of the stadiums and the total distance traveled will be shown under the table. Additionally, the fan will have the option to purchase souvenirs from any of the stadiums.
    6. **Assumptions:**
       1. Shortest distance algorithm has been created and tested.
       2. Stadium distances have been added to the database.
       3. Plan a trip page has been created.
       4. Purchasing souvenir functionality has been implemented.
    7. **Tasks & Tests:**
       1. Add a table that will display the shortest route to take during the trip.
       2. Add a label to display the total distance traveled.
          1. Calculate total distance by hand to ensure that the distance calculated by the program is correct.
       3. Add table to display list of souvenirs.
       4. Implement purchasing souvenirs functionality.
12. As a fan, I would like to be able to plan a trip by choosing the starting stadium and all other stadiums and then be given the most efficient trip route with the total distance traveled.
    1. **Story Point Value:** 8
    2. **Priority:** Sprint 3
    3. **Assignee:** Jason Zhang
    4. **Definition of Done:**
       1. The fan will select the starting stadium and all other stadiums they would like to visit and the most efficient order to visit them will be displayed in a table along with the total distance traveled.
    5. **Detailed Description:**
       1. A combo box will be provided that allows the fan to select the starting stadium. Once the starting stadium has been selected, the fan will select all other colleges they would like to visit. After the “Begin Trip” push button is clicked, the shortest trip route will be calculated and displayed in a table, and the total distance traveled will be displayed in a label.
    6. **Assumptions:**
       1. "Plan a Trip" window has been created.
       2. "Most Efficient Route" trip option is available in “Custom Trip” page.
       3. Calculate shortest trip algorithm has been created and tested.
       4. Purchase souvenirs functionality has been tested and implemented.
    7. **Tasks & Tests**
       1. Add combo box with all stadiums that the fan will use to select the starting stadium.
       2. Add combo box or table to get all other stadiums to be visited.
       3. Add “Most Efficient Route” option to “Custom Trip” page.
       4. Add table to display stadiums that will be visited.
       5. Implement calculate total distance algorithm.
       6. Add table to display the most efficient route to visit selected stadiums.
       7. Add label to display distance traveled.
13. As a fan, I want to see the minimum spanning tree (MST) connecting all the NFL stadiums as well as the associated mileage.
    1. **Story Point Value:** 3
    2. **Priority:** Sprint 3
    3. **Assignee:** Jesus Sanchez
    4. **Definition of Done:**
       1. A table will display the MST connecting the stadiums and the associated mileage will be shown below the table.
    5. **Detailed Description:**
       1. The MST connecting all of the stadiums will be determined by calling the MST algorithm. The names of the stadiums in the MST will be displayed in a table and the associated mileage will be shown below that.
    6. **Assumptions:**
       1. Stadiums and distances have been added to the database.
       2. "Plan a Trip" page has been created.
       3. Graph ADT has been created.
       4. MST algorithm has been created using Prim's or Kruskal's algorithm.
    7. **Tasks & Tests:**
       1. Create "View MST" page.
       2. Call MST algorithm and display results in a table.
          1. Determine correct MST by hand to ensure that the program is correct.
       3. Display total mileage in a label under the table.
14. As a fan, I want to see a DFS starting at Hard Rock Stadium as well as the associated mileage.
    1. **Story Point Value:** 3
    2. **Priority:** Sprint 3
    3. **Assignee:** Jesus Sanchez
    4. **Definition of Done:**
       1. The fan will be see the DFS displayed on a table starting at Hard Rock Stadium and the mileage will be displayed below the table.
    5. **Detailed Description:**
       1. The fan will select the "DFS" option of the "Plan a Trip" page and the DFS algorithm will be called to determine the order that the stadiums will be displayed in on the table. Also, the mileage of the DFS will be shown in a label under the table.
    6. **Assumptions:**
       1. "Plan a Trip" page has been created.
       2. Stadiums and Distances table is in the database.
       3. Graph ADT has been created.
       4. DFS algorithm is finished.
    7. **Tasks & Tests:**
       1. Add "View DFS" option to "Plan a Trip" page.
       2. Add table to display DFS.
          1. Determine the correct DFS by hand to ensure program is correct.
       3. Add label to display total mileage.
15. As a fan, I would like to see the breadth-first search of the stadiums and the associated mileage of the search.
    1. **Story Point Value:** 3
    2. **Priority:** Sprint 3
    3. **Assignee:** Jesus Sanchez
    4. **Definition of Done:**
       1. The fan will be shown a list of the stadiums in breadth-first search order and the total mileage of the mileage.
    5. **Detailed Description:**
       1. A table will be used to display the list of stadiums after the BFS algorithm determines the order that the stadiums will be visited in, and the total mileage will be displayed under the table.
    6. **Assumptions:**
       1. Database has been created.
       2. Plan a Trip page has been created.
       3. Stadiums and distances have been added to database.
       4. BFS algorithm has been written and tested.
    7. **Tasks & Tests:**
       1. Add stadiums and their distances from the other stadiums to the database.
       2. Write BFS algorithm.
          1. Determine the correct order that the stadiums will be visited in by hand and compare to order produced by the algorithm.
16. As a fan, I want to be able to keep track of the souvenirs I buy on my trip. I would also like to view the total revenue (total souvenirs bought) of each stadium and a grand total for all of the stadiums combined.
    1. **Story Point Value:** 3
    2. **Priority:** Sprint 2
    3. **Assignee:** Frances Ohide
    4. **Definition of Done:**
       1. As a fan they should be able to click the "Add Souvenir" button. The souvenir should be added to another table. Total Revenue for individual stadiums displayed along with the grand total.
    5. **Detailed Description:**
       1. There will be a table containing the corresponding souvenirs available for purchase. Souvenirs should be able to be purchased by clicking a button to add it to another table that keeps track of the souvenirs being bought. There will be information that displays the total revenue for each stadium where the souvenirs were bought from and also a grand total.
    6. **Assumptions:**
       1. Database has been created.
       2. Unsorted map class has been created.
       3. Homepage has been created.
       4. Souvenirs class has been created.
       5. Plan a Trip window has been created.
    7. **Tasks & Tests:**
       1. Add a table widget and display a list of stadiums.
       2. Add a combo box that will allow the fan to select a stadium.
       3. Add a combo box that will allow the fan to select a team where they want to buy souvenirs from.
       4. Add a table widget that keeps track/displays the souvenirs in the fan's cart.
       5. Display the total revenue for each stadium
       6. Display the grand total for all of the stadiums combined.
17. As an administrator, I would like to be able to add a new stadium and its corresponding souvenirs by reading the information from an input file.
    1. **Story Point Value:** 3
    2. **Priority:** Sprint 2
    3. **Assignee:** Jesus Sanchez
    4. **Definition of Done:**
       1. The administrator will be able to add all new stadiums and their corresponding souvenirs that are stored in the "New Stadiums" table of the database to the main list of stadiums at the click of a button.
    5. **Detailed Description:**
       1. The administrator will click a button "Add Stadiums" and all stadiums in the "New Stadiums" table of the database will be added to existing list of stadiums, along with their souvenirs. The table displaying the stadiums will automatically refresh to reflect these changes.
    6. **Assumptions:**
       1. Database has been created.
       2. Administrator window has been created.
       3. Souvenir class has been created.
       4. "New Stadiums" table is in the database.
    7. **Tasks & Tests:**
       1. Add "Add Stadiums" option to administrator window.
       2. Write function to add new stadiums and their souvenirs to the existing tables of stadiums and souvenirs.
       3. Add a table to display the stadiums in the database.
       4. Refresh the table when the new stadiums are added.
18. As an administrator, I would like the ability to add, delete, and change the information for a souvenir from any stadium.
    1. **Story Point Value:** 3
    2. **Priority:** Sprint 2
    3. **Assignee:** Sabrina Dang
    4. **Definition of Done:**
       1. The administrator will be able to add/delete a souvenir and change the information for a souvenir and the changes will be reflected in the table of souvenirs.
    5. **Detailed Description:**
       1. When adding a souvenir, the administrator will be able to select the stadium they would like to add a souvenir for and they will be prompted to enter its name and price.
       2. When deleting a souvenir, the administrator will select the stadium and souvenir they would like to delete.
       3. When changing a souvenir's price, the administrator will select the stadium and souvenir they whose price they would like to change, and they will enter its new price.
    6. **Assumptions:**
       1. Database of souvenirs has been created and connected.
       2. Database of all NFL teams has been created.
    7. **Tasks & Tests:**
       1. Have all line edits for all inputs of souvenir
       2. Add souvenir with nothing in it and cause an error.
       3. Add souvenir with something in some and still cause an error.
       4. Add souvenir with all line edits and combo boxes done and not cause an error.
       5. Delete souvenir without choosing a team and cause an error.
       6. Delete souvenir with team chosen but not souvenir and cause an error.
       7. Delete souvenir with team and souvenir chosen and not cause an error.
       8. Change price of souvenir without entering anything and cause an error.
       9. Change price of souvenir without fail.
19. As an administrator, I would like to be able to modify stadium information, including seating capacity, if a team moves into a new stadium.
    1. **Story Point Value:** 2
    2. **Priority:** Sprint 2
    3. **Assignee:** Jason Zhang
    4. **Definition of Done:**
       1. The administrator can modify stadium information, including the seating capacity, to move a team into a new stadium, and the changes are reflected in the database.
    5. **Detailed Description:**
       1. Edit page will be shown to the admin upon clicking "Edit Stadium" button. Will have input fields, combo boxes, and confirmation box to edit the stadium data.
    6. **Assumptions:**
       1. Database has been created.
       2. Administrator window has been created.
       3. Push button to lead to edit stadium has been created.
    7. **Tasks & Tests:**
       1. Add a combo box to display list of all stadiums
       2. Add a small table widget to display all the information about the chosen stadium
       3. Add User Input fields to modify: Stadium Name, Seating Capacity, Location.
       4. Add check box to move a team into a new stadium
       5. When check box is clicked, display the team name and the current stadium
       6. Combo box that displays all stadium => admin chooses the new stadium
       7. Date field to input the year the team is moving to the new stadium.
       8. Add combo box to display the conferences the admin can choose from
       9. Add combo box to display the available surface types the admin can choose from
       10. Add combo box to display stadium roof type the admin can choose from
       11. Add input field to edit the star player.
       12. Add confirmation push button that will update the changes and clear all fields button that will refresh the edit page.
20. As a fan, I would like to be able to view the souvenir list for the stadium that I choose.
    1. **Story Point Value:** 1
    2. **Priority:** Sprint 2
    3. **Assignee:** Jesus Sanchez
    4. **Definition of Done:** 
       1. The fan will be able to click the name of a stadium and its souvenir list will be displayed.
    5. **Detailed Description:**
       1. A table will display the names of the NFL teams sorted by name.
       2. The fan will be able to click the name of a stadium on the table and a second table will display a list of the selected stadium's souvenirs.
    6. **Assumptions:**
       1. Database has been created.
       2. Unsorted map class has been created.
       3. Homepage has been created.
       4. NFL Information page has been created.
       5. Souvenir class has been created.
    7. **Tasks & Tests:**
       1. Add a table widget and display the names of the NFL stadium.
       2. Add tableWidget\_clicked() function that will get the name stored in the selected cell of the stadiums table.
       3. Display the souvenirs for the selected stadium on the second table.