Team Teqnify1894 User Stories

Members:

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(#1) As a baseball fan, I want to view the information for any major league baseball(MLB) team.

Description

1. Any baseball fan should be able to view the stadium name, seating capacity, location, playing surface, league, Date opened, Distance to center field, Ballpark typology and Roof type for any MLB team.

Assumptions

1. Initial information for each MLB team is provided.
2. The program is able to keep track of changes the Administrator makes in modifying team information.

Tasks

1. Add the information for every MLB team using a Database.
2. Team information should be stored using an ordered map, unordered_map, or a priority queue
3. Create a button which allows the user to select an MLB team
4. Create a display button that will display the information for the selected MLB team when clicked.

Tests

1. Verify any MLB team can be selected from a widget.
2. Once the display button is clicked, the correct information for the selected MLB team is displayed.
3. There is no duplicate information for any team.
4. Program does not display information for any team not selected.

Definition of Done

1. Any baseball fan can select a team to view its information.
2. Only the information related to the selected team is shown.

Assignee

Yaseen Khan, Liam Knight

Estimate

8

(#2) As a baseball fan, I want to view a list of all the baseball teams and their stadium names that play in the American League.

Description
1. The program will have an option to display all of the baseball teams and their stadiums sorted by team name that play in the American League.

Assumptions
1. Information for each baseball team is already added into the program.
2. The program is able to keep track of changes made by the Administrator.

Tasks
1. Search through the database of all baseball teams and find all of the teams that play in the American League.
2. Store these teams and their stadiums in a data structure.
3. Sort the list of teams and stadiums names by team name.
4. Add a button to display the American League teams to the user.

Tests
1. The baseball teams and stadium names are sorted by team name when displayed.
2. Only the baseball teams that play in the American League and their stadium names should be displayed.
3. Baseball teams that play in the National League should not be displayed.

Definition of Done
1. Baseball fans are able to view the list of all the baseball teams that play in the American League along with their corresponding stadium names.

Assignee
Yaseen Khan

Estimate
4

Priority
Sprint 2

(#3) As a baseball fan, I want to view a list of all the baseball teams and their stadium names that play in the National League.

Description
1. The program will have an option to display all of the baseball teams and their stadiums sorted by stadium name that play in the National League.

Assumptions
1. Information for each baseball team is already added into the program.
2. The program is able to keep track of changes made by the Administrator.

Tasks
1. Search through the database of all baseball teams and find all of the teams that play in the National League.
2. Store these teams and their stadiums in a data structure.
3. Sort the list of teams and stadiums by stadium name.
4. Add a button to display the National League teams to the user.

Tests
1. Verify that the baseball teams and stadium names are sorted by stadium name when displayed.
2. Only the baseball teams that play in the National League and their stadium names should be displayed.
3. Baseball teams that play in the American League should not be displayed.

Definition of Done
1. Baseball fans are able to view the list of all the baseball teams that play in the National League along with their corresponding stadium names.

Assignee
Yaseen Khan

Estimate
4

Priority
Sprint 2

(#4) As a baseball fan, I can view all of the MLB teams that have an open roof type.

Description
1. Add an option to display all the teams sorted by team name with an open roof type.
2. The total number of teams with an open roof type is also displayed.

Assumptions

1. Information for each baseball team is already added into the program.
2. The program is able to keep track of changes made by the Administrator.

Tasks
1. Create a int variable to keep track of the number of teams with an open roof type
2. Search through the database of teams to find all the teams with an open roof type and store these teams into a data structure.
3. Sort the list of baseball teams by team name.
4. Add a display button to display all of the teams with an open roof type and the total number of teams with an open roof

Tests
1. Verify all the baseball teams with an open roof type are displayed.
2. Baseball teams that do not have an open roof type are not displayed.
3. Verify that the total number of teams with an open roof type is displayed.
4. Verify all of the baseball teams displayed are in order.

Definition of Done
1. Baseball fans are able to view all the baseball teams sorted by team name that have an open roof type.
2. Baseball fans can also view the total number of baseball teams with an open roof type.

Assignee
Yaseen Khan

Estimate
4

Priority
Sprint 2

(#5) As a baseball fan, I can view a list of major league baseball teams and their stadiums sorted by park typology

Description
1. The program contains an option to view baseball teams and their stadiums sorted by typology.

Assumptions
1. Information for each baseball team is already added into the program.
2. The program is able to keep track of changes made by the Administrator.

Tasks
1. Get the team name, stadium name, and park typology from the database and store each into a data structure.
2. Sort the list of teams and stadiums by park typology
3. Create a display button to display the teams, stadiums, and typology

Tests
1. Verify that the team name, stadium name, and park typology are displayed.
2. Verify that the list of baseball teams and stadiums are displayed in order by park typology.

Definition of Done
1. Baseball fans are able to view the baseball teams and their stadiums sorted by park typology.

Assignee
Yaseen Khan

Estimate
4

Priority
Sprint 2

(#6) As a baseball fan, I want to view all the MLB teams and their stadiums by team name.

Description
1. Add an option to display the baseball teams and stadiums sorted by team name

Assumptions
1. Information for each baseball team is already added into the program.
2. The program is able to keep track of changes made by the Administrator.

Tasks
1. Get the team names and stadium names from the database
2. Store the team names and stadium names into a data structure (Map)
3. Sort the data structure by team name
4. Create a display button to display the baseball teams and stadiums sorted by teams

Tests
1. Verify only the baseball team names and their stadium names are displayed.
2. Verify that the team names and stadium names are displayed in order by team.

Definition of Done
1. Baseball fans can view all of the MLB teams and their stadium names in order of team names.

Assignee
Yaseen Khan

Estimate
3

Priority
Sprint 2

(#7) As a baseball fan, I want to view all the MLB teams and their stadiums by stadium name.

Description
1. Add an option to display the baseball teams and stadiums sorted by team name

Assumptions
1. Information for each baseball team is already added into the program.
2. The program is able to keep track of changes made by the Administrator.

Tasks
1. Get the team names and stadium names from the database
2. Store the team names and stadium names into a data structure (Map)
3. Sort the data structure by stadium name
4. Create a display button to display the baseball teams and stadiums sorted by campus

Tests
1. Verify only the baseball team names and their stadium names are displayed.
2. Verify that the team names and stadium names are displayed in order by stadium name.

Definition of Done
1. Baseball fans can view all of the MLB teams and their stadium names in order of stadium names

Assignee
Yaseen Khan

Estimate
3

Priority

Sprint 2

(#8) As a baseball fan, I can view all the MLB teams and stadium names from smallest seating capacity to largest seating capacity.

Description
1. The program will have an option to view all the baseball teams and their stadium names sorted by seating capacity (smallest → biggest)
2. The program will also display the total seating capacity for all MLB teams.

Assumptions
1. Information for each baseball team is already added into the program.
2. The program is able to keep track of changes made by the Administrator.

Tasks
1. Create a variable to count the total seating capacity.
2. Get the Team name, Stadium name, and seating capacity from the database
3. Store the team name, stadium name, and seating capacity into a data structure
4. Sort by smallest seating capacity to biggest seating capacity
5. Create a display button to display the team names, stadium names, seating capacity, and the total seating capacity.

Tests
1. Verify that only the team name, stadium name, and seating capacity is displayed.
2. Verify that the stadium and team name are displayed based on seating capacity (smallest to largest)
3. Verify that the total seating capacity is displayed.

Definition of Done
1. Baseball fans are able to view all of the MLB teams by seating capacity.

Assignee
Yaseen Khan

Estimate
5

Priority
Sprint 2

(#9) As a baseball fan, I want to view all the major league baseball teams and stadiums in chronological order.

Description
1. The program will have an option to view all the baseball teams along with their stadiums in order of date opened.(oldest-newest)

Assumptions
1. Information for each baseball team is already added into the program.
2. The program is able to keep track of changes made by the Administrator.

Tasks
1. Get the team names, stadium names, and dates opened from the database and store into a data structure.
2. Sort the information by date opened(oldest - newest)
3. Create a display button to display the stadium, team name, and date opened.

Tests
1. Verify only the baseball teams, stadium names, and date opened are displayed.
2. Verify that the stadium and the team names are displayed from oldest date to newest date

Definition of Done
1. Any baseball fan can view a list of baseball teams and stadium names sorted by date opened.

Assignee
Yaseen Khan

Estimate
5

Priority
Sprint 2

(#10) As a baseball fan, I want to view all of the teams and their stadiums that have the greatest distance to the center field.

Description
1. The program will contain an option to display all the stadiums and team names that have the greatest distance to the center field

Assumptions
1. Information for each baseball team is already added into the program.
2. The program is able to keep track of changes made by the Administrator.

Tasks
1. Create a variable to find maximum distance from the center field
2. Search through the database and compare the distance to max distance
   a. If the value is greater than max, max is assigned the new value.
3. Once max has been found, search through the database again to find the baseball teams and their stadiums that match the max value
4. Add these teams and stadium names into a database.
5. Create a display button to display the team names, stadium names, and distance to center field

Tests
1. Verify only the teams and stadium names with the greatest distance to center field is displayed.
2. Verify that the distance is center field is the maximum value

Definition of Done
1. Baseball fans can view all the teams and their stadiums with the greatest distance from the center field.

Assignee
Yaseen Khan

Estimate
5

Priority
Sprint 2

(#11) As a baseball fan, I want to view all of the teams and their stadiums that have the smallest distance to the center field.

Description
1. The program will contain an option to display all the stadiums and team names that have the smallest distance to the center field

Assumptions
1. Information for each baseball team is already added into the program.
2. The program is able to keep track of changes made by the Administrator.

Tasks
1. Create a variable to find minimum distance from the center field
2. Search through the database and compare the distance to minimum distance

> a. If the value is less than min, min is assigned the new value.
3. Once min has been found, search through the database again to find the baseball teams and their stadiums that match the min value.
4. Add these teams and stadium names into a database.
5. Create a display button to display the team names, stadium names, and distance to center field

Tests
1. Verify only the teams and stadium names with the minimum distance to center field is displayed.
2. Verify that the distance is center field is the minimum value

Assignee
Yaseen Khan

Estimate
5

Definition of Done
1. Baseball fans can view all the teams and their stadiums with the greatest distance from the center field.

(#12) As an administrator, I want to log in to the database with an encrypted password

Description: Add a method to access a panel if and only if the user has the given encrypted password.

Assumptions: The main GUI exists and a button can be placed on it

Tasks:
1. Create the button to access the panel
2. Have the user input a password to access the panel
3. The aforementioned password should be encrypted
4. If the password is entered incorrectly, the user will be booted back to the main panel

Tests:
1. Verify that the panel can be accessed
2. Verify that the panel can only be accessed using a password

Definition of Done
1. User can access the admin panel using the admin password

Assignee

Yaseen Khan

Estimate
1

Priority
Sprint 2

(#13) As an administrator, I want to edit a stadium such that the information listed is up to date.

Description: In the administrator panel, add a button to edit a given stadium. This will allow them to change any and all aspects about the given stadium.

Assumptions
1. The admin panel exists
2. The admin panel displays all colleges that can be edited
3. The database has stadiums in it

Tasks
1. Create a button to edit colleges on the admin panel
2. The button allows the admin to edit every aspect of the college
3. Once valid input is made for an edit, it is applied to the database

Tests
1. Verify the panel shows the correct information
2. Verify the edits were actually made to the stadium
3. Verify that invalid input is not accepted

Definition of Done
1. Using the admin panel, a stadium can be edited
2. During the editing process, any aspect of the stadium that's either left blank or has invalid input will not be edited.

Assignee
Yaseen Khan

Estimate
10

Priority
Sprint 2

(#14) As a baseball fan, I want to be able to visit any team of my choice starting from Dodger Stadium (LA Dodger) traveling the shortest distance

Description:
1. Create the capability for a baseball fan to create their own trip starting from Dodger Stadium while traveling the shortest distance

Assumptions
1. The main UI for custom shortest trip is done with navigation buttons working

Tasks:
1. Display the total distance travelled
2. Enable user to visit any team of choice starting from Dodger stadium
3. Make sure the visits travel the shortest distance
4. Implement with Dijkstra's or A* algorithm

Tests
1. Verify that the correct total distance traveled for the trip is displayed.
2. Verify that the user is able to select all the teams they want to visit.
3. Verify that the program begins the trip at Dodger Stadium and selects the next closest stadium in the trip.

Definition of Done
1. Users are able to select all the teams they wish to visit.
2. The trip begins at Dodgers Stadium and the next stadium is visited based on the smallest distance from the previous stadium.
   a. This process continues until all stadiums are visited.
3. The total distance traveled is displayed at the end of the trip.

Assignee
Quan Nguyen, Liam Knight

Estimate
12

Priority
Sprint 3

(#15) As a baseball fan, I want to plan my own dream vacation by choosing my starting team and all the other teams I want to visit in the shortest way possible

Description
1. Capability for the baseball fan to plan a shortest trip with all the teams they want to visit

Assumptions
1. All team information is already added into the database.

Tasks
1. Display the total distance travelled
2. Visit the teams using the order specified using the shortest path

Tests
1. Verify that the baseball fan can select their starting point and all other teams for their trip.
2. Verify that the program visits the next closest stadium from the previous stadium until all teams have been visited.
3. Verify that the total distance displays once the baseball fan visits every team.

Definition of Done
1. Baseball fans are able to select their starting point(team) for their trip.
2. Baseball fans can select other teams they want to visit.
3. The trip begins at the starting team and the next closest stadium is visited until all teams are visited.
4. Total distance of the trip is displayed.

Assignee
Quan Nguyen, Liam Knight

Estimate
14

Priority
Sprint 3

(#16) As a baseball fan, I want the capability of visiting all the teams starting at Marlins Park (Miami Marlins)

Description
1. Capability for a baseball fan to visit all the baseball teams starting at Marlins Park.

Assumptions
1. Team name, stadium name, and distances are already added into the database.

Tasks
1. Display the total distance traveled after the trip.
2. Visit the teams using the order specified using the shortest path

Tests
1. Verify that the trip begins at Marlins Park.
2. Verify that the program selects the next closest stadium from the previous stadium until all teams have been visited.
3. Verify that the total distance of the trip is displayed.

Definition of Done
1. The trip begins at Marlins Park and all other stadiums are visited based on the shortest distance.
2. Total distance is displayed at the end of the trip.

Assignee
Quan Nguyen, Liam Knight

Estimate
10

Priority
Sprint 2

(#17) As an administrator, I want the capability to add new stadiums and corresponding souvenirs by reading from an input file as well as add and change souvenirs and prices.

Description
Encrypted access to editing souvenir prices and deleting them as well as adding new souvenir items. Additionally can add stadiums by reading from an input file.

Assumptions
1. Have access to the stadium files.
2. The program is able to save changes made by the Administrator.

Tasks
1. Give access to editing after logging in.
2. Create code to delete souvenirs.
3. Create code to edit souvenir prices.
4. Create code to add souvenirs and corresponding prices.

Tests
1. Verify that the Administrator is granted access to add stadiums, deleting souvenirs, and modify their prices.
2. No duplicate information is added into the database.
3. Verify that souvenirs can be added through an input file.

Definition of Done
1. Administrator is able to add stadiums with the provided stadium file.
2. Administrator is able to delete souvenirs.
3. Administrator is able to edit souvenir prices.
4. Administrators are able to edit souvenirs and their corresponding prices.

Assignee
Yaseen Khan, Liam Knight

Estimate
12

Priority
Sprint 2

(#18) As a Baseball fan, I want to see the minimum spanning tree (MST) connecting all the MLB stadiums

Description: A MST will be implemented to traverse through the MLB teams

Assumptions
1. MLB team information is already added.
2. The program can keep track of the changes made by the Administrator

Tasks
1. Determine the MST using Prim's or Kruskal's algorithm
2. Display the associated mileage

Tests
1. Verify that the MST correctly visits all the teams efficiently.

Definition of Done
1. The baseball fan is able to view all the MLB stadiums by a MST

Assignee
Yaseen Khan

Estimate
15

Priority
Sprint 3

(#19) As a Baseball Fan, I want to perform a DFS starting from Oracle Park (San Francisco Giants)

Description:
1. The program will have an option for the baseball fan to view the depth-first search of the MLB teams starting from Oracle Park.
2. The program chooses the next stadium by the next shortest distance
3. The program displays the total mileage of all stadiums visited.

Assumptions:
1. All Stadium information is already added.
2. Program is able to keep track of changes made by the Administrator.

Tasks:
1. Create a graph of stadiums
2. Perform a depth-first search starting from Oracle Park by mileage
3. Display each discovery edge.
4. Display the total distance traveled on Discovery edges.
5. Create a button for the baseball fan to view the DFS.

Tests:
1. Verify that the DFS correctly identifies the next stadium to visit.
2. Verify that the total mileage of the DFS displays.
3. Verify that the origin and destination stadiums for each discovery edge is displayed.
4. Verify that the baseball fan can view the DFS.

Definition of Done:
1. The Baseball fan is able to view the order of all the MLB stadiums using DFS from Oracle Park.

Assignee
Yaseen Khan, Liam Knight

Estimate
10

Priority
Sprint 3

(#20) As a Baseball Fan, I want to view the BFS of the MLB stadiums starting from Target Field (Minnesota Twins)

Description:
1. Baseball fans can view the BFS of all the MLB stadiums starting from Target Field.
2. The next stadium is chosen by shortest mileage.
3. The total distance of the stadiums are displayed.

Assumptions:
1. MLB information is already added.
2. Program can handle changes made by the Administrator.

Tasks:
1. Create a graph of stadiums
2. Perform a Breadth-first search starting from Target Field by mileage.
3. Display each discovery edge(origin --> destination).
4. Create a button for the baseball fan to view the BFS.

Tests:
1. Ensure the BFS correctly identifies the next stadium to visit by mileage.
2. Ensure the total mileage of the BFS is displayed.
3. Verify that the baseball player can view the BFS.
4. Verify that the discovery edges are displayed.

Definition of Done:
1. The Baseball fan can view the BFS starting from Target Field
2. The total distance of the BFS is displayed.
3. All the discovery edges are displayed.

Assignee:
Yaseen Khan, Liam Knight

Estimate:
12

Priority:
Sprint 3