Team Steamed Potatoes Project Agile

Baseline Story: (1 Story Points)
As a college student and an administrator, I want to have a login page to determine if the user is a student or an administrator. Different privileges will be accessed depending on the type of user logged in. The user will be able to look at or access at least 20 college campuses and their corresponding traditional souvenirs. The student is able to plan a short college touring trip starting at ASU, and plan a custom trip for their college experience. The admin will be able to modify information about souvenirs and college locations.

Assumption:
In order to create a UI for the user to login with and interact with, QT will be used to code the program. The user will input the appropriate login information for if they are a student or an administrator.

Task:
- Using QT, we will be able to create a login window for the user to input a username and a password into labeled locations.
- The username and password inputted by the user will be used as parameters in a login checking function to check if the inputted information is valid for an administrator login.
- If the user successfully logs in as an administrator, they will gain access to a UI that will allow them to modify the colleges and souvenir present in the program.
- If the user successfully logs in as a student, they will gain access to a UI that will allow them to plan their college touring trip.
- If the user's login is incorrect, they will receive an error message and will be prompted for another login attempt.

Definition of Done:
- The code is to adhere to the Saddleback College style standard and documentation standards.
- An error message is displayed when the user inputs an invalid login (neither student login or administrator login).
- The administrator UI is only accessible if the user inputs a valid administrator login information.
- The student UI is only accessible if the user inputs a valid student login
- Ensure that errors are not present in the program through debugging and analysis that the objectives were met using the optimal methods.
- The final product is approved by the product owner and the customer.

Priority: 10
Assignee: Yicheng

Story Line #1: (3 Story Points)
As a college student, I would like to see a display of the list of college campuses and the overall distance from Saddleback College.

Assumption:
Using SQL database, we would need to create a list dedicated to the college campuses existing and the distance from Saddleback College. A new UI page would need to be created in QT in order to access this particular database.

Tasks:
- In SQL database, create a new database for the list of college campuses
- In SQL database, create a new database for the distance from Saddleback College
- In QT, create a new UI page so that user could access the database
- In QT, connect the button to the database UI page. This button will be seen after the login page.
- In QT, once the user gets to the new UI page, create a button that allows the user to see the database.

Definition of Done:
- The information for college campuses inputted in the SQL database must be consistent and accurate.
- The information for the distance from Saddleback College inputted in the SQL database must be consistent and accurate.
- The SQL database must be connected to the QT project/UI page.
- In QT, the button which is connected to the database UI page must open the database UI page when it is in action.
- The UI database page will contain a button to further access the database
- Once the user clicks the button, the database will be visible
- The SQL database must contain the list of college campuses and distance from Saddleback College

Priority: 8
Assignee: Wesley

Story Line #2: (2 Story Points)

      As a college student, I would like to see the traditional souvenir selection for any given college campus.

Assumption:

      Using SQL database, we would need to create a list dedicated to the traditional souvenirs that the given campus provides. The UI page from story point #1 will be used for displaying the list.

Tasks:
- In SQL database, create a database for the list of all the traditional souvenirs.
- Connect this SQL database to the same database created in storyline 1
- In QT, test for the button that is connected to the UI page created in storyline line 1.
- In QT, test for the button that accessed the database in the UI page created in storyline 1.

Definition of Done:
- The information for the traditional souvenirs inputted in the SQL database must be consistent and accurate.
- The SQL database must be connected to the QT project/UI page.
- In QT, the button which is connected to the database UI page must open the database UI page when it is in action.
- The UI database page will contain a button to further access the database
- Once the user clicks the button, the database will be visible
- The SQL database must include the traditional souvenirs

Priority: 9

Assignee: Wesley

Story Line #4ab (8 Story Points):
      As a college student, I should be able to select the college campuses that I wish to visit for my college touring trip starting at Arizona State University (ASU).

Assumption:
      Using the previously created database of college campuses, the user should be able to select which campuses they wish to visit. In QT, a new UI is needed for the user to select the campuses that they wish to visit for their trip starting at ASU.

Task:
- In QT, create a UI page that will allow the user to select the campuses that they wish to visit.
- In QT, create a button that provides access to this ASU UI page.
- In QT, create a sorting button that will allow the user to select the colleges that they wish to visit using the previously created database.
- In QT, the selected campuses and the number of campuses should be stored in a container.

Definition of Done:
- The user is able to access the UI using a button after the login without error.
- The user is able to view the list of college campuses that are present in the database.
- The user is able to add selected colleges to their tour plan, and there are no errors that allow for repeat selection of already selected campuses.
- The number of colleges selected are accurately stored in a container, and the number of campuses in the container is tracked.
- The program is able to ask the user if they are complete with their selection before proceeding.

Priority: 6
Assignee: Ivan

Story Line #4cd: (20 Story Points)
      As a college student, I would like to be able to start my trip specifically at ASU. After this I would like to visit the closest campuses to ASU and then the closest campus to the previous closest campus. Lastly, I would like to know the total distance of my trip.

Assumption:
      In QT, create a button that will calculate the closest campus to ASU and so on. Recursively. Also create a line box which will output the closest campus and another line box that will calculate the total distance.

Task:
- In QT, create a button to confirm the end of the student's college touring selection that will also proceed to the recursive route calculation function.
- In QT, create a function that calculates the optimal college touring route from the user selected list of colleges.
- The function should be able recursively choose the closest campus to ASU first, then the closest campus to previous campus and so on.
- In QT, the total distance traveled using the route calculated by the recursive function.

- In QT, a new UI should be created to display the optimal calculated route for the user to follow during their trip.

Definition of Done:
- The button to end selection will be visible to the user and, when clicked, will proceed to the function without error.
- The function should be able to accurately calculate the best possible route without error.
- In QT, the UI containing the optimal calculate route is displayed to the user, along with the total distance traveled.
- The route produced is approved by the product owner.

Priority: 7
Assignee: Daniel

Story Line #5ab: (5 Story Points)

As a college student, I would like to select my initial college and then select any colleges afterwards I'm interested in visiting.

Assumption:

In QT, a new UI page needs to be created. A sorting button will also need to be created in order to execute the college's the student wishes to visit.

Tasks:
- In QT, create a UI page which will allow the user to perform actions to visit college campuses
- In QT, create a button to access this UI page. This button will be found after the login menu
- In QT, create a sorting button that will allow the user to select their college campus
- In QT, create another sorting button that will allow the user to select any other college campus they wish to visit
- In QT, create a sorting button that will ask the user if they want to add any other college campuses

Definition of Done:
- The button that allows the user to access the UI page will be visible and work effectively. By effectively, the UI page will appear.
- In QT, the sorting button will show the list of college campuses that are present on the list
- When the user selects a college campus, it will show that it was selected.
- The user will be able to change what is selected in the sorting button
- In QT, the sorting button that will ask the user for any college campus will show the list of college campuses that are present on the list
- The user will not be allowed to select the campus they have selected in the previous sorting button. If they do select the same campus, then an error message will pop up.
- The user will be able to change what is selected in the sorting button
- The program will ask the user if they want to add any other college campuses. There will be a sorting button that will contain either "yes" or "no". If the user selects yes, the program will go through recursion and another sorting button will be present. If the user selects "no" the contents will discontinue

Priority: 1
Assignee: Ivan

Story Line #5cd: (13 Story Points)

As a college student, I would like to choose a campus as the initial place, and then get the most efficient trip plan to visit other campuses from the program, and show the total distance.

Assumption:

In QT, a new page should be generated that contains a list of the order of the trip and the total distance.

Tasks:
- QT allows the user to choose a suitable initial location.
- Get the most efficient travel order by recursively selecting the campus closest to the previous campus.
- Calculate the total distance
- Create a new page in QT to display the report results

Definition of Done:
- The button that allows the user to access the UI page will be visible and work effectively. By effectively, the UI page will appear.
- There should be a list in the new UI for the user to choose which campus to start with.
- Recursive functions are very efficient at calculating the most efficient order of travel.
- Clearly show the order of the trip and the total distance in the travel planning report.

Priority: 2
Assignee: Daniel

Story Line #4e, 5e, 6a: (5 Story Points)

As a college student, I would like to purchase multiple traditional souvenirs purchased at each campus on any given trip.

Assumption:

Using SQL database, we would need to create a list dedicated to the traditional souvenirs that each given campus provides. The UI page from story point #1 will be used for displaying the list.

Tasks:
- In SQL database, create a new database for the traditional souvenirs.
- In QT, create a new UI page so that the user could access the database of traditional souvenirs from each campus. Each souvenir should include information about which college it was from and what the souvenir is.
- In QT, connect the button to the database UI page. This button will be seen after the login page. This button should also be accessible from the trips UI page.
- In QT, once the user gets to the new UI page, create a button that allows the user to add souvenirs from the database.
- In QT, there should be a list of number of souvenirs from each college visited. At the top of the page, there should be a total count of traditional souvenirs.

Definition of Done:
- QT should have an interface that is able to add a traditional souvenir for every visited college campus.

- The information for college campuses inputted in the SQL database must be consistent and accurate.
- The SQL database must be connected to the QT project/UI page.
- In QT, the button which is connected to the database UI page must open the database UI page when it is in action.
- In QT, the button which is connected to the database UI page for traditional souvenirs must be open when it is in action.
- The UI database page will contain a button to further access the database
- Once the user clicks the button, the database will be visible

Priority: 3
Assignee: Yicheng

Story Line #6b: (2 Story Points)
  As a college student, I would like to track multiple traditional souvenirs purchased at each campus on any given trip.
Assumption:
  Using SQL database, we would need to create a list dedicated to the traditional souvenirs that each given campus provides. The UI page from story point #1 will be used for displaying the list.
Tasks:
- In SQL database, track the number of souvenirs with the size function of the list.
- In QT, connect the button to the database UI page. This button will be seen after the login page. This button should also be accessible from the trips UI page.
- In QT, once the user gets to the new UI page, create a button that allows the user to add souvenirs from the database.
- In QT, there should be a list of number of souvenirs from each college visited. At the top of the page, there should be a total count of traditional souvenirs.

Definition of Done:
- The QT must display number of traditional souvenirs for each college and total number of traditional souvenirs
- The information for college campuses inputted in the SQL database must be consistent and accurate.
- The SQL database must be connected to the QT project/UI page.
- In QT, the button which is connected to the database UI page for traditional souvenirs must be open when it is in action.
- The UI database page will contain a button to further access the database
- Once the user clicks the button, the database will be visible

Priority: 4
Assignee: Ivan

Story Line #6c: (2 Story Points)
  As a college student, I would like to see the total amount I spent at each college campus and a grand total for all campuses visited.
Assumption:

Create a button in the QT that will put the total amount spent at each college campus and a grand total for all campuses visited displayed on a new page.

Tasks:
- In QT, create a push button that will calculate the total amount spent at each college campus
- This same button will also calculate the grand total for all campuses visited
- The contents of the button's execution will be outputted on the same UI page created in story point 4e, 5e and 6a
- In QT, create line boxes to output the total amount spent at each college and the grand total for all the campuses visited

Definition of Done:
- In QT, the button connected to the UI page must open the UI page only.
- In QT, the total amount spent in each campus must be calculated correctly and the data to calculate must be accurate as well.
- In QT, the amount spent per college campus must be correlated accurately
- In QT, the grand total for all campuses visited must be calculated correctly and the data to calculate must be accurate as well.
- In QT, in the new page, the label must show all the total spending of the campus.

Priority: 5
Assignee: Wesley