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Assignment: Project 1

User Stories:

Story 1:
As a college student I would like a list of universities with their distances from Saddleback college so that I can decide on which university to transfer to.

Description:
This implementation will be a button on the main menu with a table of colleges with their distances in miles from Saddleback college

Sprint Assignment
- Sprint 1

Programmers
- Meredith Seifoleslami

Prioritizing
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List of Assumptions
- The main menu should be created
- The button has been created to access the list of universities.

Definition of Done
- Code pushed to the repository that was created by the product manager from different branches. (Github)
- Product manager will check the code and merge to the master branch.(Github)
- Code commented and documented with doxygen style comments. (Doxygen)
- The website created by doxygen will have a full description of all data and functions, and will have grough that shows the relations between classes. (Doxygen)
- Table displays all colleges.
- Table displays all corresponding distances from Saddleback.

Tasks
- Button from main opens a separate window containing a table
- The table contains a list of colleges and displays all corresponding distances from Saddleback
- This window can also be closed and the user will be returned to the main menu

Tests
- Desk check the table and the distances from saddleback

Story 2:
As a student I would like to keep track of all the souvenirs that I purchased from each college campus so that I can look back fondly on my trip.

Description:
This will be a button that opens a window which has a table that contains all of the student's purchases. This will include names of the items purchased, prices for each souvenir and the university where it was purchased.

Sprint Assignment
- Sprint 3

Programmers
- Meredith Seifoleslami

Prioritizing
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List of Assumptions
- The main menu should be created
- The student is able to make trips
- The student is able to make purchases

Definition of Done
- Code pushed to the repository that was created by the product manager from different branches. (Github)
- Product manager will check the code and merge to the master branch.(Github)
- Code commented and documented with doxygen style comments. (Doxygen)

- The website created by doxygen will have a full description of all data and functions, and will have grough that shows the relations between classes. (Doxygen)
- A database has been created that holds all of the students purchases
- A table has been created that holds all of the students purchases, the prices for each item, and which university they were purchased from
- There is a sort function implemented that only displays 1 university at a time.

Tasks
- Create a database that saves all purchases, the prices and the universities from where the purchases were made.
- Create a button to open a new window
- Create a table in this new window that displays a table displaying this database of information
- Make a sort function that displays purchases from only 1 university at a time

Tests
- Black box test after a trip to ensure that all purchases, prices and places were logged in the database and appear on the table.
- Black box test the sort function that only displays souvenirs from 1 university at a time (it can only display 1 university at a time)

Story 3:

As a student I would like to automatically have a trip planned out from UCI to the 13 closest universities so that I don't have to spend time planning a trip instead of studying.

Description:

A student will have the ability to select UCI as a starting point and a button that will recursively make a trip to the closest university from UCI, the closest university from that university and so on.

Sprint Assignment
- Sprint 2

Programmers
- Behrad Rezazadeh Moussavi

Prioritizing
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List of Assumptions
- The main menu has been created
- A trip planning button has been created
- A student can choose from a range of trip options

Definition of Done
- Code pushed to the repository that was created by the product manager from different branches. (Github)
- Product manager will check the code and merge to the master branch.(Github)
- Code commented and documented with doxygen style comments. (Doxygen)
- The website created by doxygen will have a full description of all data and functions, and will have grough that shows the relations between classes. (Doxygen)
- A button has been created so that a student can select to go to the 1 closest universities
- A recursive function has been created that selects a series of universities that are closest to one another.
- A plan is displayed.

Tasks
- Make a button that allows a student to select to go to the 13 closest universities
- Create a recursive function which will select each of the closest universities
- Display each university on the plan.

Tests
- Black box test the data to ensure that each of the universities displays the actual closest universities to UCI
- Black box test to ensure that it only displays the 13 closest universities
- Click the button multiple times to ensure that the data doesn't change (unless you manually add a new college that is closer than the others)
- Check that the data does in fact change if you add a college that is closer than the others
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Story 4:

As a student I want to be able to create my own custom trip so that I can only visit the universities that I am interested in attending.

Description:
This will be the "Custom Trip" option which allows the students to begin the college tour. The student will also be able to add any university in the database to the trip. The trip will be sequenced using the most efficient route.

Sprint Assignment
- Sprint 2

Programmers
- Awf Wiswasi

Prioritizing
- 13

List of Assumptions
- The main menu should be created
- A button to plan a trip has been created
- The button opens a new window.

Definition of Done
- Code pushed to the repository that was created by the product manager from different branches. (Github)
- Product manager will check the code and merge to the master branch.(Github)
- Code commented and documented with doxygen style comments. (Doxygen)
- The website created by doxygen will have a full description of all data and functions, and will have grough that shows the relations between classes. (Doxygen)
- A Student is able to start their trip from anywhere that they choose
- A student is able to select each other university that they would like to visit
- A recursive function has been created so that the trip will be planned with the most efficient route from each university
- A route is displayed

Tasks
- Create a button where a student can choose to make a custom trip
- Create a button that allows a student to select a starting point for their trip

- Create a button that allows a student to add universities to their trip
- Create a recursive function that plans the most efficient route to each university
- Display the trip

Tests
- Desk check that the trip only has the universities that were selected by the student
- Desk check that the trip follows the most efficient route

Story 5:

As a student I would like to take a trip with an automatically made itinerary from ASU with any given number of stops so that I can have a premade itinerary to visit as many schools as possible without wasting too much time planning.

Description:

This implementation starts always at ASU and allows the student to plan a trip with any given amount of stops. This trip will also use a recursive function to make each stop the university closest to the one last visited.

Sprint Assignment
- Sprint 2

Programmers
- Awf Wiswasi

Prioritizing
- 21

List of Assumptions
- The main menu has been created
- The plan a trip button has been created
- The button opens a new window.

Definition of Done
- What should be done before we move on? - github, testing etc.

Tasks

- Code pushed to the repository that was created by the product manager from different branches. (Github)
- Product manager will check the code and merge to the master branch.(Github)
- Code commented and documented with doxygen style comments. (Doxygen)
- The website created by doxygen will have a full description of all data and functions, and will have grough that shows the relations between classes. (Doxygen)
- A Student is able to start their trip from Arizona
- A student is able to select the number of universities that they would like to visit
- A recursive function has been created so that the trip will be planned with each of the closest possible universities to one another starting from ASU.
- A route is displayed

Tests
- Desk check that the most efficient route for any given trip
- Desk check that there are only the number of universities on the itinerary that were selected when the student made the plan
- Desk check that the data changes if you add a university closer to any other given university to ASU (or any corresponding university later on the itinerary)

Story 6:
As a student I would like to buy souvenirs from any university that I visit so that I can remember my amazing trip.

Description:
A student should be able to make purchases from any university during any trip planning mode. Each purchase should be saved to a separate database that will save each purchase from any given trip.

Sprint Assignment
- Sprint 3

Programmers
- Amin Parvizi

Prioritizing
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List of Assumptions

- The main menu should be created
- A button to plan a trip has been created
- A student is able to create a trip

Definition of Done
- Code pushed to the repository that was created by the product manager from different branches. (Github)
- Product manager will check the code and merge to the master branch.(Github)
- Code commented and documented with doxygen style comments. (Doxygen)
- The website created by doxygen will have a full description of all data and functions, and will have grough that shows the relations between classes. (Doxygen)
- A student can make purchase during any given trip
- A student's purchases can be saved to a database.

Tasks
- Create the functionality which will allow a student to make a purchase during any given trip
- Create a database that will save all purchases made during any given trip.

Tests
- Desk check the button that allows students to make a purchase
- Ensure that each purchase is saved to the database
- Ensure that each trip planning mode has the functionality to allow students to make purchases.
- Ensure that any invalid purchases are not added to the database and that an error message is displayed if a student tries to add an invalid purchase.

Story 7:
As an admin I would like to be able to add or delete colleges so that I can keep my software user friendly and up-to-date.

Description:
An admin will have a window that only they can access that allows them to directly change the university database.

Sprint Assignment
- Sprint 1

Programmers
- Amin Parvizi

Prioritizing
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List of Assumptions
- A main menu has been created

Definition of Done
- Code pushed to the repository that was created by the product manager from different branches. (Github)
- Product manager will check the code and merge to the master branch.(Github)
- Code commented and documented with doxygen style comments. (Doxygen)
- The website created by doxygen will have a full description of all data and functions, and will have grough that shows the relations between classes. (Doxygen)
- An admin can select the admin button on the main menu and must input a username and password to access the admin functionality
- An admin page has been created with the buttons "Edit colleges" and "Edit souvenirs"
- An admin can add universities in the edit colleges page
- An admin can delete universities in the edit colleges page

Tasks
- Create a button for admin access
- Create a username and password login window
- Create an admin page with 2 buttons "Edit universities" and "Edit souvenirs"
- Create functionality to add or delete universities
- Create functionality to read in any or all of this information from a file or type it in manually.

Tests
- Desk check the add/delete universities button
- Desk check that the information changed saves to the database
- Ensure that the corresponding information changes in all trip planning modes
- Ensure that the college edits affect the university pages

Story 8:

As an admin I would like to hold all of the most accurate information about all of the universities' inventory so that I can track all of the most current items and their prices.

Description:
An admin will have a window that only they can access that allows them to directly edit the souvenir database.

Sprint Assignment
- Sprint 1

Programmers
- Behrad Rezazadeh Moussavi

Prioritizing
- 13

List of Assumptions
- A main menu has been created

Definition of Done
- Code pushed to the repository that was created by the product manager from different branches. (Github)
- Product manager will check the code and merge to the master branch.(Github)
- Code commented and documented with doxygen style comments. (Doxygen)
- The website created by doxygen will have a full description of all data and functions, and will have grough that shows the relations between classes. (Doxygen)
- An admin can select the admin button on the main menu and must input a username and password to access the admin functionality
- An admin page has been created with the buttons "Edit colleges" and "Edit souvenirs"
- An admin can add a souvenir in the edit souvenirs page
- An admin can delete a souvenir in the edit souvenirs page
- An admin can edit prices in the edit souvenirs page

Tasks
- Create a button for admin access
- Create a username and password login window
- Create an admin page with 2 buttons "Edit universities" and "Edit souvenirs"
- Create functionality to edit, add or delete souvenirs

- Create functionality to read in any or all of this information from a file or type it in manually.

Tests
- Desk check the add/delete/edit souvenirs button
- Test that a user cannot input a character or a string for a price
- Test that a user cannot put in an extremely large number or a negative number for a price.
- Ensure that the corresponding information changes in all trip planning modes
- Ensure that the souvenir edits do *not affect the total purchases page

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Story 9: As a student I would like to know the total amount that I will be spending on each souvenir so that I can keep track of my spendings.

Description:
After any trip the user should receive a receipt that details how much they spent at each university as well as a grand total.

Sprint Assignment
- Sprint 3

Programmers
- Behrad

Prioritizing
- 5

List of Assumptions
- A main menu has been created
- A user can make a trip
- A user can make purchases

Definition of Done
- Code pushed to the repository that was created by the product manager from different branches. (Github)
- Product manager will check the code and merge to the master branch.(Github)
- Code commented and documented with doxygen style comments. (Doxygen)

- The website created by doxygen will have a full description of all data and functions, and will have grough that shows the relations between classes. (Doxygen)
- A window appears after each trip detailing the amount of money spent at each university and the grand total for the trip

Tasks
- Create an add function that will add the total amount spent per university
- Create an add function that will add the total amount spent at al universities
- Create a pop up window for every trip function which will display all of this information

Tests
- Desk check the total amounts per university
- Desk check the total amounts for all universities

Story 10:

As a student I would like a running total of the distance in miles that I will travel for the trip so that I can know how much to save for gas money.

Description:

On each trip the total distance in miles will be displayed below the trip.

Sprint Assignment
- Sprint 3

Programmers
- Meredith Seifoleslami

Prioritizing
- 5

List of Assumptions
- The main menu should be created
- A student should be able to make a trip
- The recursive function to create an itinerary has been created.

Definition of Done
- Code pushed to the repository that was created by the product manager from different branches. (Github)

- Product manager will check the code and merge to the master branch.(Github)
- Code commented and documented with doxygen style comments. (Doxygen)
- The website created by doxygen will have a full description of all data and functions, and will have grough that shows the relations between classes. (Doxygen)
- An add function has been created that will add up each distance between universities in miles
- The amount traveled in miles will display below the trip.

Tasks
- Create an add function that will add the distances between universities.
- Create a display function that will display the total distance

Tests
- Desk check the total distance traveled in miles.