CSCC01 | Deliverable 4

Product Backlog:

Updated as of July 20th, 2020.

Static Table:

- : Restaurant Search Engine : Restaurant Profile Page : Online Ordering
- : Simple Social Network : Analytics Dashboard : Mobile Website

Priority	User Story	Estimated Cost (in hours)	
1	As Steve (Restaurant Owner), I want a page to feature my restaurant's address and contact information, so that my customers can get in touch with me directly.	6	
2	As Steve (Restaurant Owner), I want to showcase personal stories and anecdotes about my dishes, so that customers can understand the history behind them.	5	
3	As Javier (Customer), I want to search for restaurants based on rating, so that I know which places would draw in the most views to my blog.	9	
4	As Steve (Restaurant Owner), I want to upload simple photos of my dishes and restaurant, so that I can promote exactly how I did in traditional media.	4	
5	As Fiona (Customer), I want to see videos of how restaurants make their food, so that I can feel safe ordering it for me and my children.	4	
6	As Bonny (Customer), I want to search for restaurants by price, so that I can stay within my tight budget.	5	
7	As Bonny (Customer), I want to browse a restaurant's menu, so I can decide what to order beforehand.	9	
8	As Javier (Customer), I want a personal profile page, so that I can link my other social media accounts, as well as my blog.	10	
9	As Diane (Restaurant Owner), I want to see how often various menu items are ordered, so that I can decide where to expand and where to cut back.	10	
10	As Javier (Customer), I want to share my thoughts on restaurants, so that I can grow my brand and public	12	

	influence.	
11	As Fiona (Customer), I want to search for restaurants based on their cuisine, so that I can make sure the food I order meets my dietary needs.	5
12	As Bonny (Customer), I want to order food for pickup, so that I can have it ready when I arrive and save time.	8
13	As Fiona (Customer), I want to order food for delivery, so that I can order on my commute and save time.	4
14	As Steve (Restaurant Owner), I want a simple ticket system to see online orders, so that my kitchen doesn't waste valuable time learning the new system.	4
15	As Diane (Restaurant Owner), I want to see how often my restaurant appears in various searches, so that I can see what sets me apart from my competitors	6
16	As Steve (Restaurant Owner), I want a daily record of what was ordered, so that I can easily cross-reference with my physical inventory	4
17	As Diane (Restaurant Owner), I want to see a distribution of when (time/date) my orders come in, so that I can choose effective promotional periods	5
18	As Fiona (Customer), I want to see the nutrition labels of any food I order, so that I can ensure it pertains to my dietary needs.	8
19	As Diane (Restaurant Owner), I want to show where my ingredients are sourced from, so that I can differentiate myself from the chain franchises.	6
20	As Diane (Restaurant Owner), I want to see the demographics of the people that order from my restaurant, so that I can hone in on my target audience	6
21	As Diane (Restaurant Owner), I want my customers to be able to share media that links to my restaurant page, so that they can direct their friends there.	4
22	As Javier (Customer), I want to interact with other people's posts, by liking and sharing them, so that I can connect with my friends.	5
23	As Diane (Restaurant Owner), I want to see how customers	4

	are interacting with posts about my restaurant, so that I can directly see what they generally like and dislike	
24	As Diane (Restaurant Owner), I want to make posts that target people who frequent my restaurant, so that I strengthen the 'local community' feel.	7
25	As Javier (Customer), I want to see how often my friends have eaten at a restaurant, so that I can judge how popular and 'trendy' that restaurant is.	8
26	As Bonny (Customer), I want to search for restaurants by location, so that I can make sure I have the means to actually get there.	9
27	As Bonny (Customer), I want a way to see how long it would take me to reach a restaurant via public transit, so that I can ensure I can make it there and back within my schedule.	6
28	As Diane (Restaurant Owner), I want online orders to be sorted by expected pick-up time, so that my kitchen can be efficient with their cooking.	5
29	As Javier (Customer), I want a mobile website with a navigation bar always present, so that I can easily access every feature with a couple clicks.	4
30	As Javier (Customer), I want a mobile website where I can access all content with only vertical scrolling, so that I don't miss content off to the side or waste time zooming.	4

Release Plan:

Identical to Release Plan presented in Deliverable 3. Sprints are still 1 week long. We felt that no changes were needed. The issues we faced in the retrospection of the first sprint of this deliverable were addressed as we moved onto the next sprint (week).

Sprint Plan:

Deliverable 4, Sprint 1

Deliverable 4, Sprint 1 Backlog:

Story 2: As Steve (Restaurant Owner), I want to showcase personal stories and anecdotes about my dishes, so that customers can understand the history behind them.

Acceptance Criteria:

- Given Steve wants to add new text to his restaurant's profile page, when Steve clicks on the "Update Content" button, a web form should appear for him to fill out.
- Given Steve has previously submitted content to his restaurant's profile page, when Steve clicks on the "Update Content" button, the web form that appears should be pre-filled with the current content.
- Given Steve has completed filling out the form to update content, when Steve clicks on the "Complete" button, he should be directed to his restaurant's profile page, with the updated info published.

Tasks:

- T1: Create UI Form for Additional Text Info in Restaurant Profile Page
- T3: Update front end to reflect changes to restaurant database

Story 4: As Steve (Restaurant Owner), I want to upload simple photos of my dishes and restaurant, so that I can promote exactly how I did in traditional media.

Acceptance Criteria:

- Given Steve wants to upload a photo, and clicks the "Upload Photo" button, he should be directed to a form where he can submit a photo, along with its title and description.
- Given Steve has not completed filling out all of the required fields, and clicks the "Upload" button, he should be prompted that he must first complete all the fields.
- Given Steve has completed filling out all of the required fields, and clicks the "Upload" button, he should be redirected to his restaurant's profile page, with the new photo present.

Tasks:

- T1: Create UI Form to submit photos
- T2: Link submitted form to the database
- T3: Update the front end to show the images from the database for the specific restaurant

Story 5: As Fiona (Customer), I want to see videos of how restaurants make their food, so that I can feel safe ordering it for me and my children.

Acceptance Criteria:

• Given Fiona navigates to a restaurant's profile page, and clicks on the "View Media" button, she should be shown all available photos and videos uploaded by the restaurant.

Tasks:

• T1: Update Story 4 features to support video file format

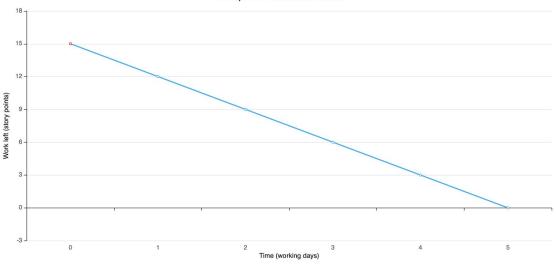
• T2: Perform sanity test including creating restaurant owner, and uploading media to a homepage that the owner can see.

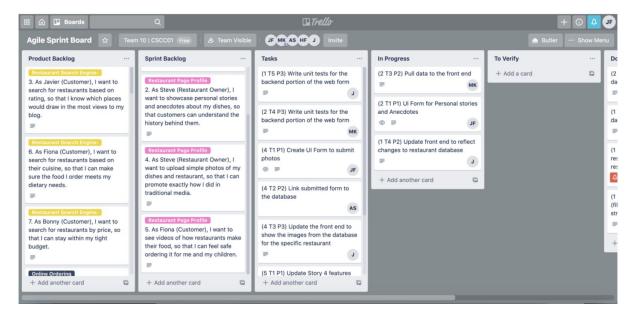
Deliverable 4, Sprint 1: July 7, 2020 - July 13, 2020:

Story	Task	Cost	Priority	Day 1	Day 2	Day 3	Day 4	Day 5	Assigned
2	3	3	2	1	1	1	0	0	Maduvan
5	1	6	1	0	0	0	2	2	Maduvan
2	1	2	2	0	1	1	0	0	Jesse
4	2	4	2	1	0	2	1	0	Ahmad
Total		15		2	2	4	3	2	
Work Left		15		15	15	10	6	6	

Deliverable 4, Sprint 1, Snapshots at Start of Sprint

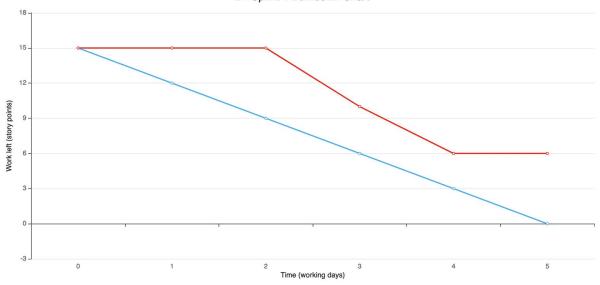
D4 Sprint 1 Burndown Chart



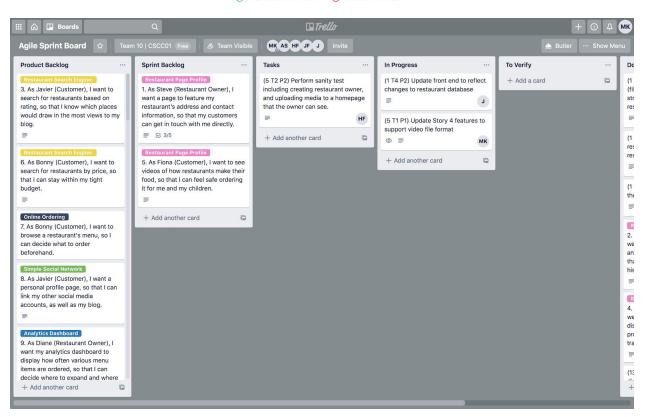


Deliverable 4, Sprint 1, Snapshots at End of Sprint

D4 Sprint 1 Burndown Chart



--- Estimated Burndown ---- Actual Burndown



Deliverable 4, Sprint 2

Deliverable 4, Sprint 2 Backlog:

Story 3: As Javier (Customer), I want to search for restaurants based on rating, so that I know which places would draw in the most views to my blog.

Acceptance Criteria:

- Given that Javier wants to search for a restaurant, he can see a search bar at the top of every page where he can fill in a text box, select the criteria to sort by, and click a button to send his search request.
- Given that Javier searches for a restaurant based on ratings, he is redirected to a search results page where he sees restaurants in a decreasing order of rating.
- Given that Javier searches for a restaurant, he can view what he searched as well as the sorting criteria used, in order to confirm his request.
- Given that Javier is interested in a restaurant shown on the search result page, he can click on the restaurant's card which will redirect him to the restaurant's profile page.

Tasks:

- T1: Create the Front End for the search bar, which includes the navigation bar (header).
- T2: Create the Back End function to handle the query from the search POST request and return the appropriate objects into the search results page.
- T3: Create the Front End for the search results page, which includes a reiteration of the User's search query and the restaurants that the server was able to find based on the request.
- T4: Test end-to-end functionality to ensure fulfillment of the user story.

Story 6: As Bonny (Customer), I want to search for restaurants by price, so that I can stay within my tight budget.

Acceptance Criteria:

- Given that Bonny wants to search for a restaurant, she can see a search bar at the top of every page where he can fill in a text box, select the criteria to sort by including increasing or decreasing price, and click a button to send his search request.
- Given that Bonny searches for a restaurant based on low to high pricing, she is redirected to a search results page where he sees restaurants in an increasing order of price.
- Given that Bonny searches for a restaurant, she can view what she searched as well as the sorting criteria used, in order to confirm her request.
- Given that Bonny is interested in a restaurant shown on the search result page, she can click on the restaurant's card which will redirect her to the restaurant's profile page.

Tasks:

- T1: Create the Back End function to handle the query from the search POST request and return the restaurants in a decreasing to increasing price order into the search results page.
- T3: Update the Front End for the search results page for restaurant cards to include price so that the customer can view the actual price range of restaurants.
- T4: Test end-to-end functionality to ensure fulfillment of the user story.

Story 7: As Bonny (Customer), I want to browse a restaurant's menu, so I can decide what to order beforehand.

Acceptance Criteria:

- Given Bonny is on a restaurant's profile page, when she clicks on the "Order Now" button, she should be directed to the first 10 items of the restaurant's menu, laid out in rows along with relevant info (price, description, etc).
- Given Bonny is browsing a restaurant's menu and is not on the first page, when she clicks on the "Last" button, she should be directed to the previous 10 items on the menu.
- Given Bonny is browsing a restaurant's menu and is not on the last page, when she clicks on the "Next" button, she should be directed to the next 10 items on the menu.

Tasks:

- T1: Create front end UI for restaurant's menu page
- T2: Link menu page with database via backend methods
- T3: Update menu page to support pagination

Story 8: As Javier (Customer), I want a personal profile page, so that I can link my other social media accounts, as well as my blog.

Acceptance Criteria:

- Given Javier wants to create a profile page for his restaurant, when Javier clicks on the "Customer Signup" button, a web form with relevant fields should appear for him to fill out.
- Given Javier has completed filling out the form to create a customer, when Javier clicks
 on the "Complete" button, he should be directed to a profile page for his restaurant, with
 the relevant info published.
- Given Javier wants to edit his restaurant's profile page, when Javier clicks on the "Edit Profile Page" button, the fields on his page should become editable text boxes.
- Given Javier has finished editing his restaurant's profile page, when Javier clicks on the "Complete" button, the textboxes should become immutable once again.
- Given Javier is entering information into fields for his restaurant's profile page, when Javier tries to submit an inappropriate entry (e.g. alphabet characters in "phone number" field), he should be presented with a pop-up detailing the error(s).

Tasks:

- T1: Create Customer Schema (file that holds schema) to have a structure to follow for all customers
- T2: Create UI Form for customer owner to create customer info
- T3: Link submitted form to the database.
- T4: Update front end to reflect changes to customer database
- T5: Upload a picture to customer profile page
- T6: Add editable fields for user profile (Name, address, picture)
- T7: Sanitize input fields
- T8: Write unit tests for the backend portion of the web form

Story 9: As Diane (Restaurant Owner), I want to see how often various menu items are ordered, so that I can decide where to expand and where to cut back Acceptance Criteria:

- Given Diane is looking at the analytics dashboard, the data of how often various menu items are ordered is displayed as one of the statistics of the dashboard
- Given that Diane has her restaurant, only she can access the dashboard for her specific restaurant where different types of data are displayed visually

Tasks:

- T1: Create front end UI of the analytics dashboard where the statistic can be displayed
- T2: Get statistic data from the database to reflect accurate data
- T3: Update front end to display the data retrieved from database
- T4: Unit testing for the back end database accuracy

Story 10: As Javier (Customer), I want to share my thoughts on restaurants, so that I can grow my brand and public influence.

Acceptance Criteria:

- Given that Javier wants to leave a review for a restaurant, he can click a button to have a review form pop-up
- Given that Javier wants to leave a review for a restaurant, he can select a numerical rating between 1-5, and enter his thoughts in text form.
- Given that Javier wants to leave a review for a restaurant, he can click on a button to save the review and have it show up on the restaurant's profile page.

Tasks:

- T1: Create schema for reviews/thoughts in db
- T2: Create backend POST method for posting reviews/comments
- T3: Create the Front End for the review form
- T4: Create the front end for the review display page

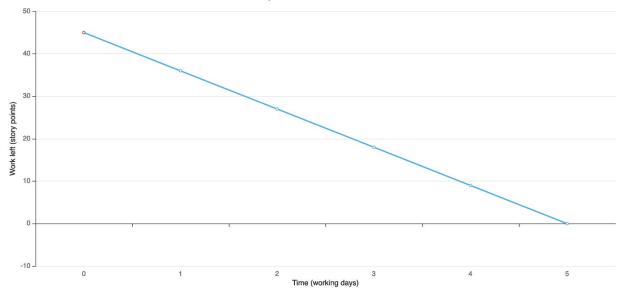
- T5: Link front-end UI to backend methods
- T6: Test end-to-end functionality to ensure fulfillment of the user story.

Deliverable 4, Sprint 2: July 14, 2020 - July 20, 2020:

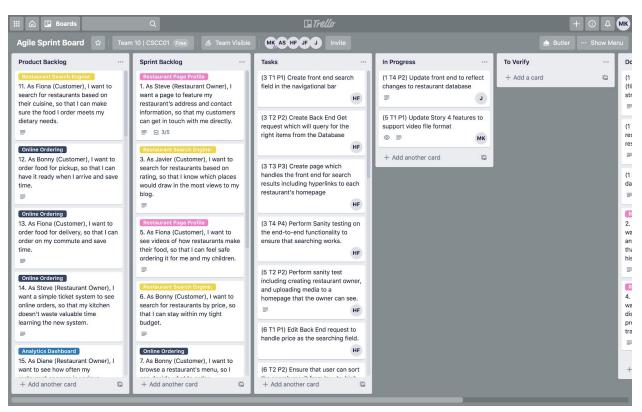
Story	Task	Cost	Priority	Day 1	Day 2	Day 3	Day 4	Day 5	Assigned
3	1	2	1	1	1	0	0	0	Husni
3	2	4	2	0	1	3	0	0	Husni
3	3	2	3	0	0	1	1	0	Husni
3	4	1	4	0	0	0	1	0	Husni
6	1	2	1	0	0	0	2	0	Husni
6	2	2	2	0	0	0	0	2	Husni
6	3	1	3	0	0	0	0	1	Husni
8	1	2	1	0	2	0	0	0	Joe
8	2	1	2	0	0	1	0	0	Joe
8	3	3	3	0	0	1	1	1	Joe
8	4	2	4	0	0	0	1	1	Joe
1	4	2	3	0	0	0	0	0	Joe
5	1	2	1	0	0	0	0	1	Maduvan
7	1	3	1	2	1	0	0	0	Maduvan
7	2	4	2	0	2	0	1	1	Maduvan
7	3	2	3	0	0	2	0	0	Maduvan
9	1	4	4	0	0	2	1	1	Jesse
10	1	2	1	0	0	1	1	0	Ahmad
10	2	4	2	0	1	1	1	1	Ahmad
Total		45		0	7	7	7	20	
Work Left		45		45	38	31	24	4	

Deliverable 4, Sprint 2, Snapshots at Start of Sprint

D4 Sprint 2 Burndown Chart

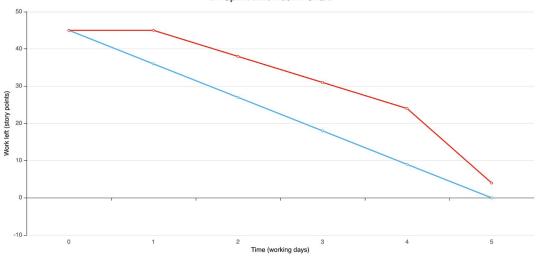


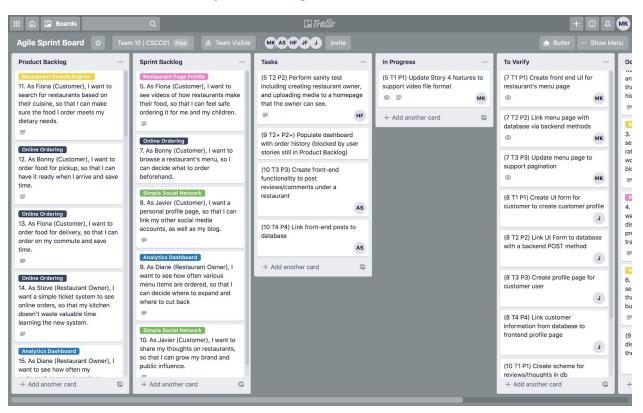




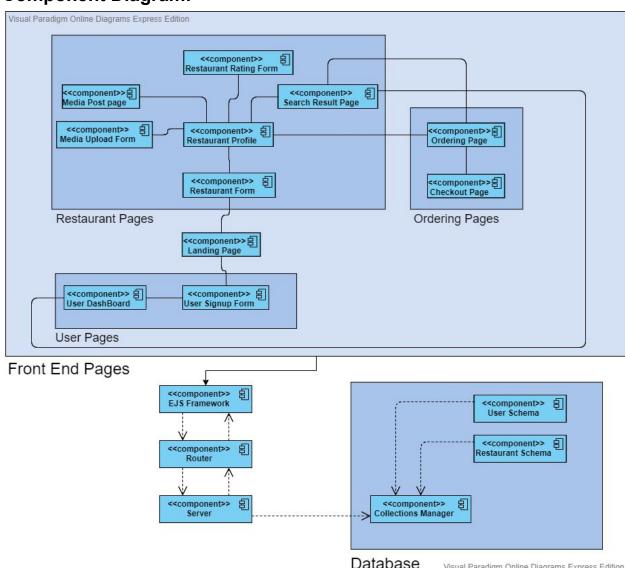
Deliverable 4, Sprint 2, Snapshots at End of Sprint

D4 Sprint 2 Burndown Chart





Component Diagram:



Component Diagram Description:

- Front End Pages: Contains the ui that both restaurant owners and customers will see while using the web app.
 - Restaurant Pages: Contains the pages which pertain to Restaurants, many of these pages are associated with each other which in the context of UI means that they can be accessed from one-another. From the diagram it is evident that the main 'hub' of these pages is the Restaurant Profile page.

Visual Paradigm Online Diagrams Express Edition

Ordering Pages: Contains the pages which pertain to ordering food for the customer. The two pages in this subsystem is the restaurant's ordering page which contains the items that the customer can order, as well as the actual checkout page for the customer to order their food.

- User Pages: Contains the pages which pertain to pages specific to only the customer. The two pages in this subsystem are the user sign-up form and the user dashboard where they can edit their profile info and view past orders.
- **EJS Framework:** The front end framework used to create pages and support objects passed in when rendering the page. Depends on the Router to progress POST and UPDATE requests to the Server.
- Router: The object used to route a request to the right function, including GET, POST, and UPDATE requests. Depends on the Server to fulfill the query to the Database.
 Depends on the EJS Framework to send objects back to the front end.
- **Server**: The structure which queries the database, receives the result from the database, and renders pages by passing the result from the database into the pages. Depends on the Database to retrieve the right result for a query. Depends on the router to render and send objects back to the front end.
- Database: The Database Subsystem which will contain all of the data which needs to be stored.
 - **Collections Manager**: Holds all the collections required for the database
 - Restaurant Schema: Contains all the properties which any restaurant will have.
 It is dependent on MongoDB to create instances of restaurants using the schema.
 - User Schema: Contains all the properties which any user will have. It is dependent on MongoDB to create instances of users using the schema.

Unit Testing:

Initial confusion in regards to unit testing a web application made it difficult to create automated test cases for our project. However, intensive research on how and which tools could be used for this process has been thoroughly completed and automated test cases will be implemented in the following weeks. The unit tests will mainly be verification for our backend responses.

Validation Activities and Outcomes:

The client had originally explicitly laid out requirements as well as a general outline for their product which were followed when implementing different features within our project. They also provided a website with similar functionality(togotoronto.com) as they envisioned their product to have. The group was able to grasp the product which the client desired by thoroughly going through the website. Certain group members would also occasionally attend meetings to speak with the client about concepts the group was unsure about. One example of this was evident when uncertainty arose in regard to which market of restaurants the product would be targeting. Originally the group had the belief that the website was aimed for small scaled restaurants. However, with some clarification from the client we learned that the application should be targeting both small and large restaurants. This allowed for us to plan better and

incorporate features based on who would be using our product in the future. Personas (Diane Steve) from which our user stories were derived from were built with this new information.

Retrospection Questions:

Brief overview of project as it progressed from Deliverable 3 to 4: In deliverable 3, we were able to get our first sprint and first project release out. It was a basic functional project with only a few major components implemented as a minimum viable product. As we progressed to deliverable 4, we were able to complete two sprints. The first sprint was a bit unorganized as the team members were busy with midterms. The second sprint of this deliverable was much more planned and much more work was completed. The user stories that are being worked on and completed right now are more specific to Scarborough Dining's requirements such as the search engine.

Estimated project velocity: We created our sprint plan using 30-minute intervals as being equal to one story point and each sprint is 5 working days (One week). This deliverable had two sprints. The total work for our first sprint of this deliverable was equal to 15 points. We estimated much less work for this first sprint as many of the team members were more preoccupied with other course work. Estimated project velocity of our second sprint this deliverable was 45 story points because we put more time into planning the sprint and more of us had more time.

Actual project velocity: The first sprint of this deliverable we finished with one task remaining. Work on that task was started but because it was not completed, we finished the sprint with 6 story points left. This almost met our estimated project velocity. For the second sprint, we were able to generally keep up with the estimated project velocity and we put more time on the last to finish the sprint with only 4 story points left.

Did we follow our plan exactly? No. We had two sprints during this deliverable and during the first sprint of this deliverable, our team lost a few working days as we were all sidetracked by other course work. Due to this, we were also unable to attend a few team meetings that were planned in the sprint. Another difficulty we encountered due to missing some team meetings was communication within the team as some of us didn't know the progress of a few of our features.

After encountering these unplanned difficulties, we were able to re-organize our plan before the second sprint of this deliverable. We planned more quick standup meetings through the week and we set a more realistic estimated project velocity for the second sprint.

Our contingency plan was not used directly during these issues, however we did get in touch with the TA (Sally) and brought up a few of these issues during our weekly meeting and we were able to get some advice which helped this deliverable's second sprint.

How does the work done for deliverable 4 differ from the work done for deliverable 3?

The work done for deliverable 3 included many of the basic first priority features and also setting up the main page and backend database for deployment. By the end of deliverable 3, we were able to deploy a minimum viable working product. The progress was very consistent. During deliverable 4, the first sprint was a bit inconsistent in progress due to a few difficulties we faced with organization and time management. However, the second sprint of deliverable 4 was better planned and we were able to have consistent progress though the sprint. As a result, deliverable 4 contains more emphasis on the smaller features that were prioritized by the client (such as a simple search engine feature).