

Project: End World Hunger

Date: 15 September 2019

Group 2

James Giouroukelis - 460379993

Alvin Ho - 450098927

Alexandra Jina Lee - 440401072

Ham Ranpara - 460146007

Rona Wang - 460387840

Table of Contents

1.Introduction	5
1.1-Overview	5
1.2-Aims	6
1.3-Primary User	6
2.Significances	7
3.Project Outline	8
3.1-System Architecture	8
3.2-Component Division	10
4.Project Plan Milestones, schedule, timeline	12
5.System Data Model	13
6.Individual Implementation	14
6.1-Food order (Rona)	14
6.2-Awards system and static pages (Jina)	20
6.3-Search (James)	22
6.4-Food provider (Hamesh)	23
6.5-User management (Alvin)	25
7.Conclusion	29
References	30

1.Introduction

1.1-Overview

End World Hunger (EWH) connects food providers with consumers, driven by the goal of reducing food wastage. Users can sign up as a food provider or a consumer. The platform allows food providers to post up their excess food, including details about serving quantity, pick-up location, and pick-up time. Consumers can view the food listings real-time and claim food from a provider. Consumers are limited by a daily food cap threshold, depending on whether they are an individual, organisation or a charity, to give all users a fair opportunity to claim food.

The platform supports a rating mechanism to promote the trustworthiness of users. After a food order is complete, food providers can leave ratings for consumers and vice versa. In extreme circumstances, food providers can report consumers and vice versa.

Furthermore, the platform will include gamification features that encourage providers to accrue points and achieve awards for posting food. Food providers can achieve streaks for posting food listings over consecutive days and they can also be recognised on a leaderboard.

In terms of software specifications and architecture, *EWH* will be delivered as a web application running on the Spring Boot framework, with a Model-View-Controller (MVC) architecture. The database will be run on MySQL and supported by Hibernate as an ORM.

1.2-Aims

- Allow restaurants to reduce food wastage and improve efficiency while being recognised for their corporate social responsibility
- Connect consumers to food providers with options that are currently available
- Connect charities to food providers that have a supply to give away rapidly
- Create a reliable system for obtaining food securely
- Encourage food providers to be more mindful of their food wastage and engage with the platform, through the use of gamification features

1.3-Primary User

- Food Providers
 - ◆ Restaurants
 - ◆ Supermarkets
- Consumers
 - ◆ Charities (example: *Meals on Wheels*)
 - High priority
 - High food order cap
 - ◆ Individuals (example: *Households*)
 - Low priority
 - Low food order cap
 - ◆ Organisations (example: *School Canteens*)
 - Low priority
 - High food order cap

2. Significances

One-third of the world's food is either wasted or lost, adding up to 1.3 billion tonnes a year (Oz Harvest, 2019). *EWH* aims to significantly reduce this figure by making use of this otherwise wasted food, which would also lessen other problems such as hunger, operating costs for charity organisations, and greenhouse gas effects. This project's model differs from other applications of the same market as we create free food exchanges.

Charities will advantage from the food exchange as they can receive large batches of food to provide to hungry people. They also have the opportunity to operate more efficiently, potentially eradicating all costs attached to ingredients.

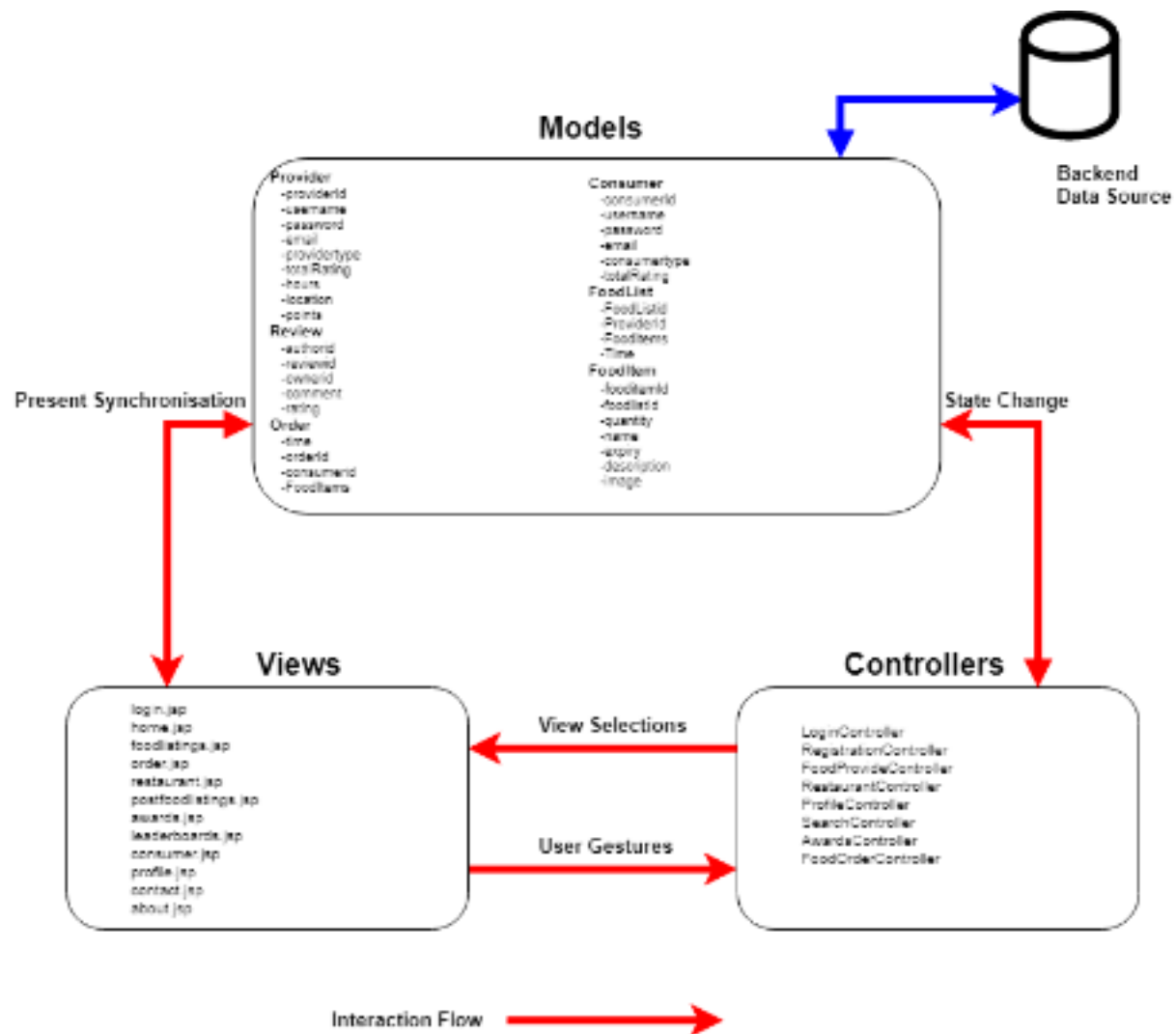
In Australia alone, 5 million tonnes of food a year ends up in landfills (Oz Harvest, 2019). Decomposition of food releases a huge amount of methane and in a 100 year period, methane's effect on the atmosphere is 21 times worse than carbon dioxide's (Victorian State Government, 2019). Therefore, consuming a higher ratio of produced food would lessen the negative impact on the environment.

There are existing services that stimulate consumption of excess food by reselling close-to-expiration food at a discount. *EWH* differs by encouraging gratuitous food. Even with no profits, food sellers would be motivated to partake in this service because it would promote social responsibility.

3. Project Outline

3.1-System Architecture

The system will be modelled around the Spring MVC pattern architecture with the components outlined below.



There is a controller for each main component of our system and is generalised into the above. The controller will communicate with the models and query data. These are handled by a user interacting with a given view that their account is given access to. User types will have limited access to some pages e.g. providers can not claim food.

The models consist of information for accounts, food listings and corresponding orders with relevant information and reviews for different organisations. Food amount change that is reflected in the data source will always synchronise to claimable food presented by a food provider, denoting a first-come-first-serve based architecture.

The MVC architectural pattern is based on Spring. Our backend data source will conform around MySQL and the usage of Hibernate which will be our ORM for the Models to communicate with the Data Source. The Views will use a templating engine for creation of Java Server Pages with HTML, CSS and JQuery for styling the components. The Controllers will be in Java with the relevant annotations (`@RestController`) to implement the RESTful Web Service.

3.2-Component Division

3.2.1-Food order (Rona)

- Claim food
 - ◆ Set time and quantity
 - ◆ Unique order ID
 - ◆ Send email confirmation to user
- Provider dashboard to see who has claimed food from them
 - ◆ Provider can 'complete' order once picked up by consumer
- Users leave reviews after order *completed*

3.2.2-Awards system (only for businesses) (Jina)

- Providers:
 - ◆ Get points for listing
 - With expiry dates
 - ◆ Can have streaks
- Leaderboard
- All static pages & help with other parts

3.2.3-Search (James)

- Multi-parameter search functionality
 - ◆ Location based search (Google maps API)
 - Results: restaurants
 - ◆ Food based search
 - Results: food listing
 - ◆ Filter results

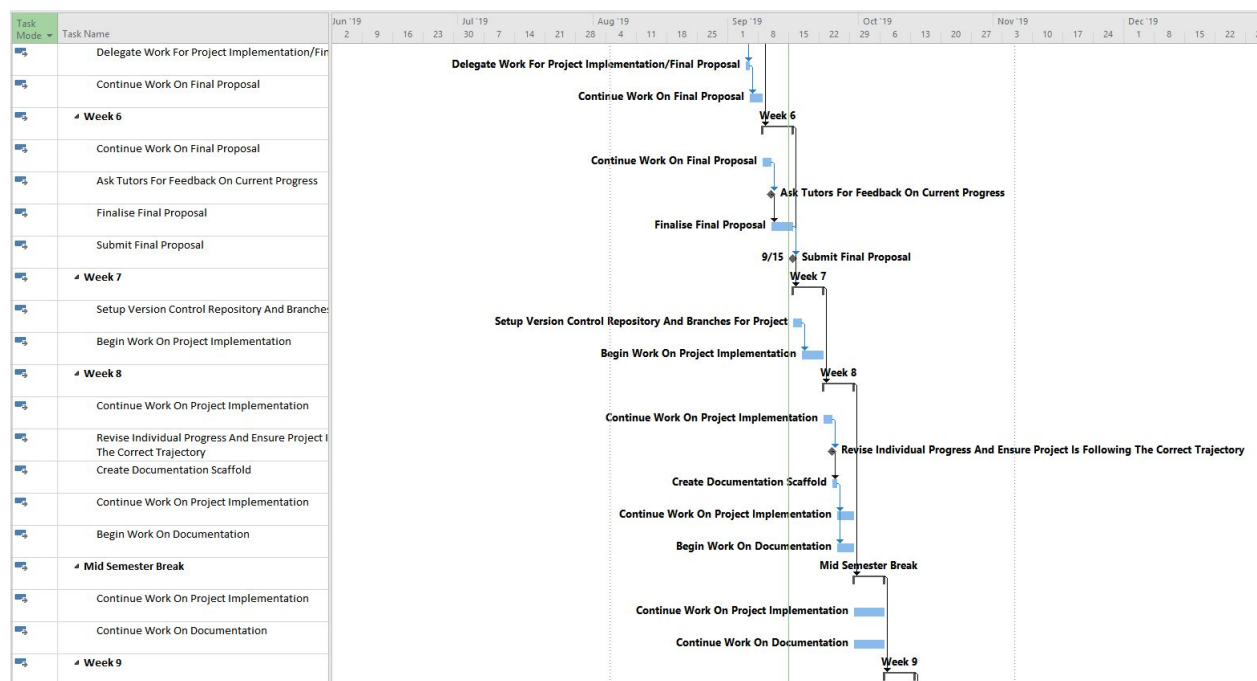
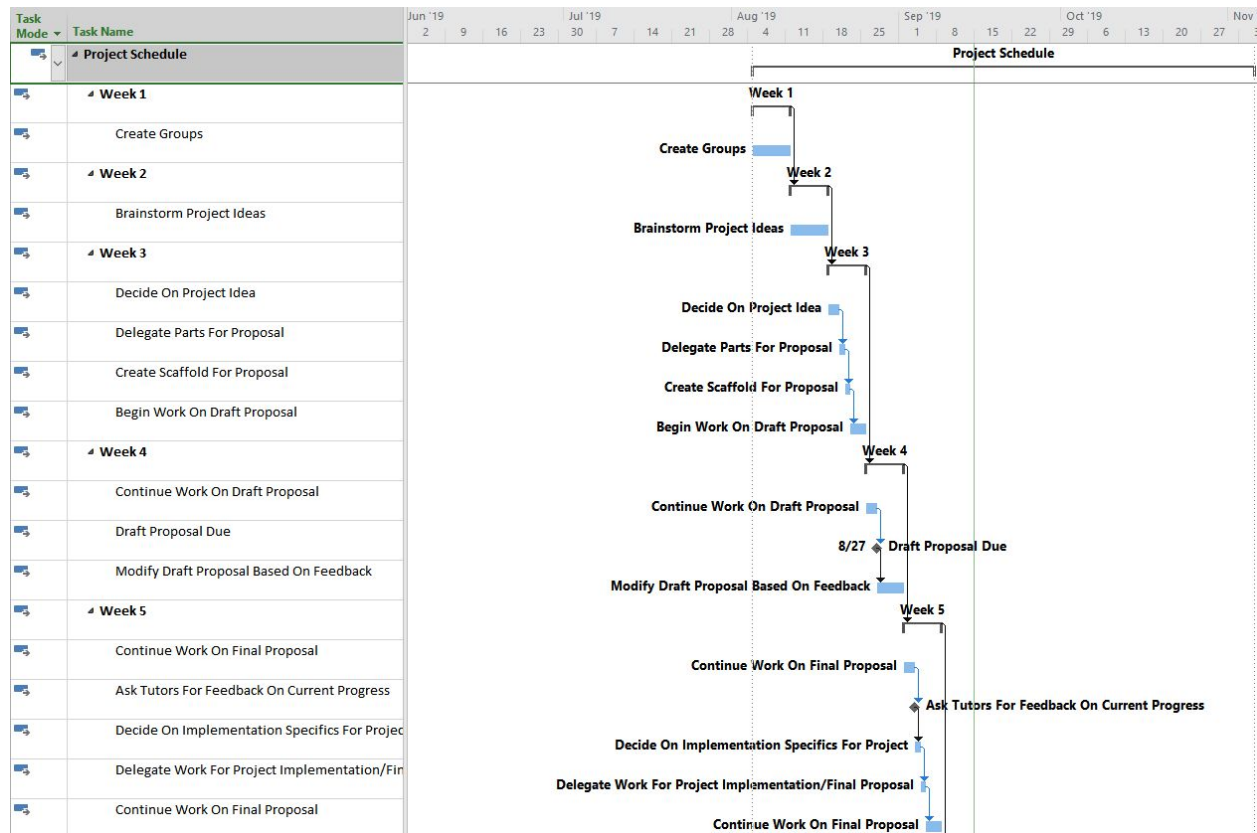
3.2.4-Food provider (Hamesh)

- Provider page
 - ◆ With provider's listings
 - ◆ With provider rating/comments
- Providers post food listings
 - ◆ Pick up location
 - ◆ Pick up time
 - ◆ Servings
 - ◆ Notes/policies
 - ◆ Name

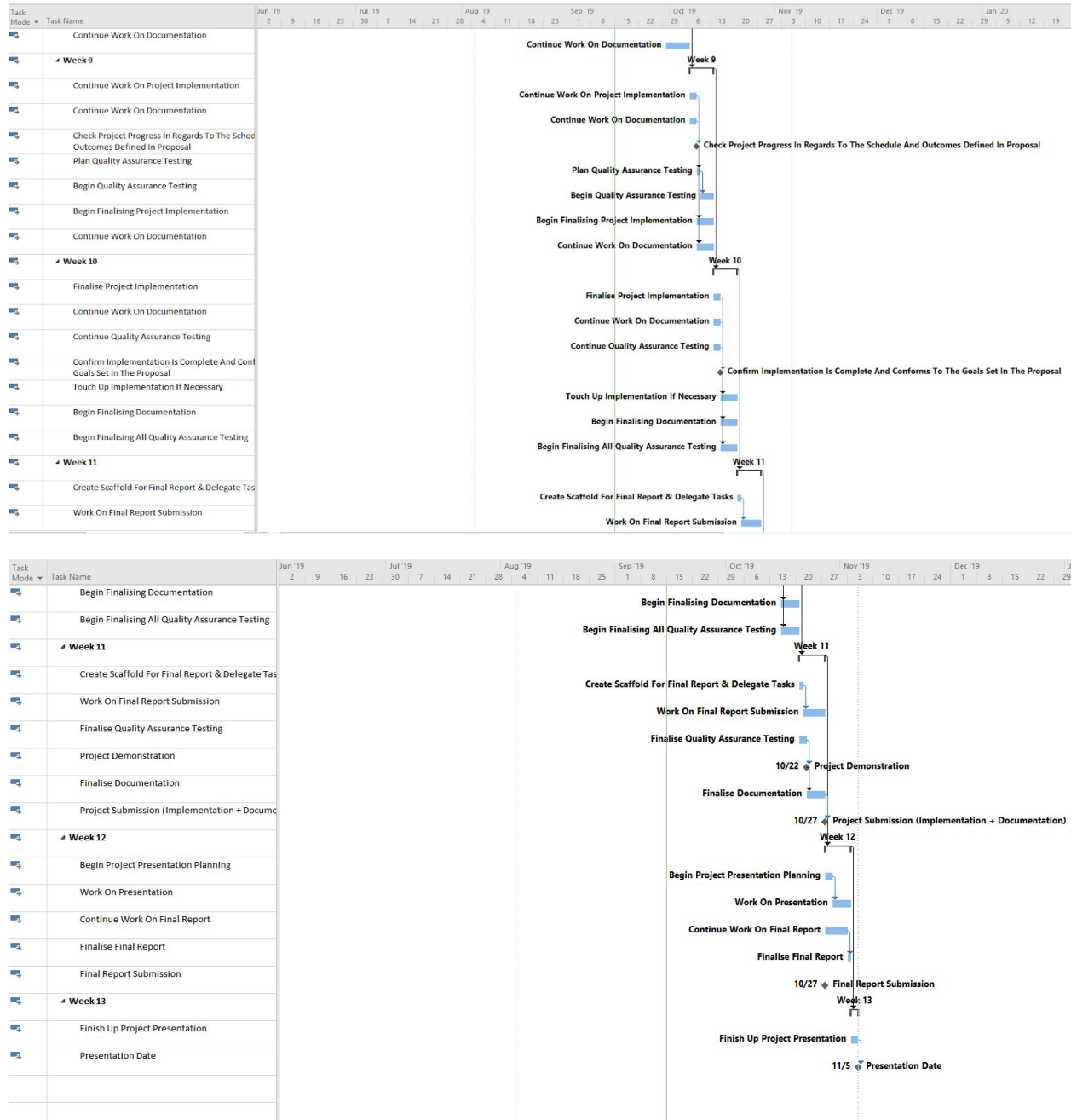
3.2.5-User management (Alvin)

- Registration
- Login
- Profile
 - ◆ Edit
 - ◆ User history/activity
 - ◆ Rating
- Admin dashboard
 - ◆ View reported users
 - ◆ View banned users

4. Project Plan Milestones, schedule, timeline

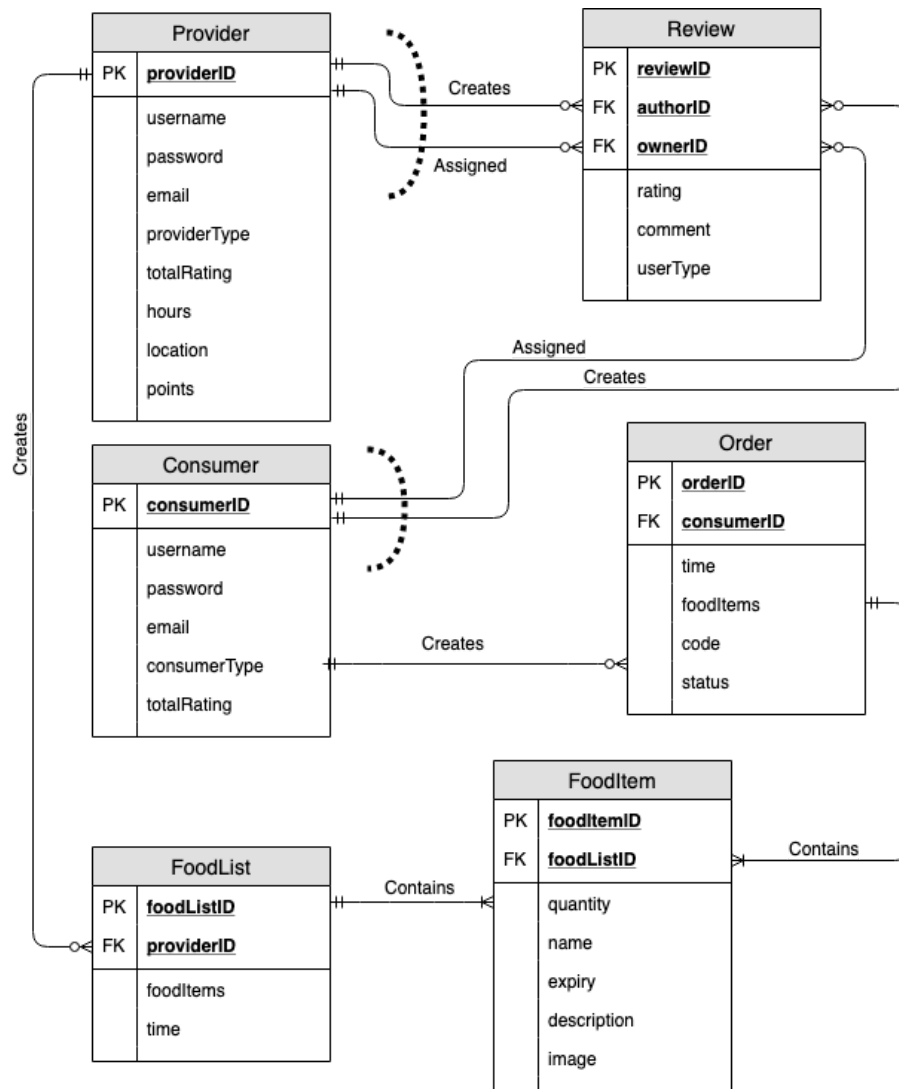


ELEC5619 Proposal Draft (Group 2)



Refer to Appendix 1-Gantt Chart for the key explaining symbols.(Example-Milestones Symbol)

5.System Data Model



As mentioned in [section 1.3 \(Primary User\)](#), there are two types of users (Consumers & Providers). All Users have usernames, passwords, contact details, and ratings that are derived from Reviews. A users can not review the same user type. Consumers are linked to orders which contain specific food items. A FoodItem must belong to a FoodList and a FoodList must belong to a Provider.

6. Individual Implementation

6.1-Food order (Rona)

6.1.1-Request Food

The screenshot displays a web browser window with the URL <http://endworldhunger.com>. The page title is "End World Hunger". The navigation bar includes links for "Home", "Find Food", "About", and "Contact", along with "Sign in" and "Sign up" buttons. The main content area is divided into three sections: "My Restaurant", "Food", and "Reviews". The "Food" section contains a table with three rows, each listing "Banana". The "Reviews" section is currently empty. A modal form titled "Pick-up Food" is overlaid on the page. This form contains the following fields: "Food requested" (set to "Banana"), "Request amount" (a slider with a red asterisk indicating a maximum of 2 servings), "Contactable number" (a text input field containing "+61400000000"), "Pick up by" (a date input field set to "30/11/2019" with a calendar icon), and "Notes for food providers" (a large text area). A "Create Request" button is located at the bottom of the modal. A footer note reads "Please be considerate of others when creating a request".

Food	
Banana	
Banana	
Banana	

Request
[Request Now]
[Request Now]
[Request Now]

Consumers can request the available food from a provider. Individuals are restricted to a lower amount compared to organisations. Upon clicking create request button, both users and the provider will be notified of the request made.

6.1.2-Provider Dashboard

The screenshot shows a web browser window with the address bar displaying "http://endworldhunger.com". The page title is "End World Hunger Provider Dashboard". There are navigation links for "Orders", "Profile", "Contact", and "Logout". On the right, there are "Sign in" and "Sign up" buttons. The main content area is titled "Orders" and has a filter switch between "Pending" (selected) and "All". Below the filter is a table of orders.

Date	Name	Status	ORDER ID
10/09/2019	Jeremy Irons	PENDING	DXC1F2
10/09/2019	Tom Cruise	PENDING	EF1OF2
10/09/2019	Meals on Wheels	PENDING	HIJ21W
10/09/2019	James Bond	COMPLETE	00A192
09/09/2019	Alex Kransky	COMPLETE	GOAIS9
09/09/2019	Sammy Two	EXPIRED	AS95D9
09/09/2019	Westmead Public School Canteen	COMPLETE	PP0A9S
09/09/2019	George Banks	EXPIRED	L5M8AO
08/09/2019	Banana Town Charity	COMPLETE	W3LUV D
07/09/2019	Angel Lee	COMPLETE	AN76A9

Provider dashboard's landing page is a list of all orders linked to the provider. Above, are all Orders-completed, pending, and expired (not picked up and past due). There is a "Pending/All" switch that filters orders by status accordingly. Providers can click into each order, taking them to Order Details.

6.1.3-Provider Dashboard Order Details

The screenshot shows a web browser window with the URL <http://endworldhunger.com>. The page title is "End World Hunger Provider Dashboard". The navigation bar includes links for "Orders", "Profile", "Contact", and "Logout", along with "Sign in" and "Sign up" buttons. The main content area is titled "Order Details" and displays the following information:

- Order ID:** **DXC1F2**
- Date and Time:** 10/09/2019 9:30pm
- Consumer Name:** Jeremy Irons
- Phone:** 0400000000
- Email:** john.smith@gmail.com






A table lists the requested food items and their amounts:

Food	Amount
Banana	5 Servings
Tomato	2 Servings
Spaghetti	2 Servings
Lettuce	1 Serving

At the bottom of the page, there are two buttons: "Back" and "Complete".

Order details consists of the consumer contact details, pick up time, code, and requested food. The bolded code e.g. **DXC1F2** is for consumer verification. If pending, provider clicks "Complete" button, and order's status changes to Complete. Then a "rating" pop up appears so providers can review consumers.

6.1.4-Consumer Order List

End World Hunger				
Home Find Food About Contact				
Sign in Sign up				
My Orders				
Pending All				
Date	Place	Status	ORDER ID	Review
10/09/2019	Guzman y Gomez Broadway	PENDING	DXC1F2	
09/09/2019	McDonalds Broadway	COMPLETE	EF1OF2	
08/09/2019	Woolworths Metro Town Hall Station	COMPLETE	HIJ21W	Review Now
07/09/2019	IGA Redfern	COMPLETE	00A192	Review Now
04/09/2019	Big Daddy's Burgers Newtown	COMPLETE	GOAIS9	
03/09/2019	Woolworths Metro Town Hall Station	EXPIRED	AS95D9	Invalid
01/09/2019	Italian Bowl Newtown	COMPLETE	PP0A9S	
30/08/2019	Lentil As Anything Newtown	EXPIRED	L5M8AO	Invalid
16/08/2019	Oporto Broadway	COMPLETE	W3LUVD	
07/08/2019	P'Nut Dulwich Hill	COMPLETE	AN76A9	

Similar to Provider Order List but with an extra column dedicated to reviews. If the order's status is completed, consumers can click on "Review Now" and will be sent to 6.1.6. After review is completed, rating is shown. If the order status is pending or expired, reviewing is not allowed.

6.1.5-Consumer Order Details

End World Hunger


End World Hunger

[Home](#) [Find Food](#) [About](#) [Contact](#)

Sign in

Sign up

Order Details



Woolworths Metro Town Hall

0400000000

woolies-TownHall@woolies.com

Park St and Sydney, NSW 2000

DXC1F2

10/09/2019

9:30pm

Pending

Food	Amount
Banana	5 Servings
Tomato	2 Servings
Spaghetti	2 Servings
Lettuce	1 Serving

Back


This is the page when consumers expand an order in the order list. Similar to provider order details, but with no "Complete" button.

6.1.6-Rate & Review Order

Rate & Review Order

08/09/2019

Woolworths Town Hall



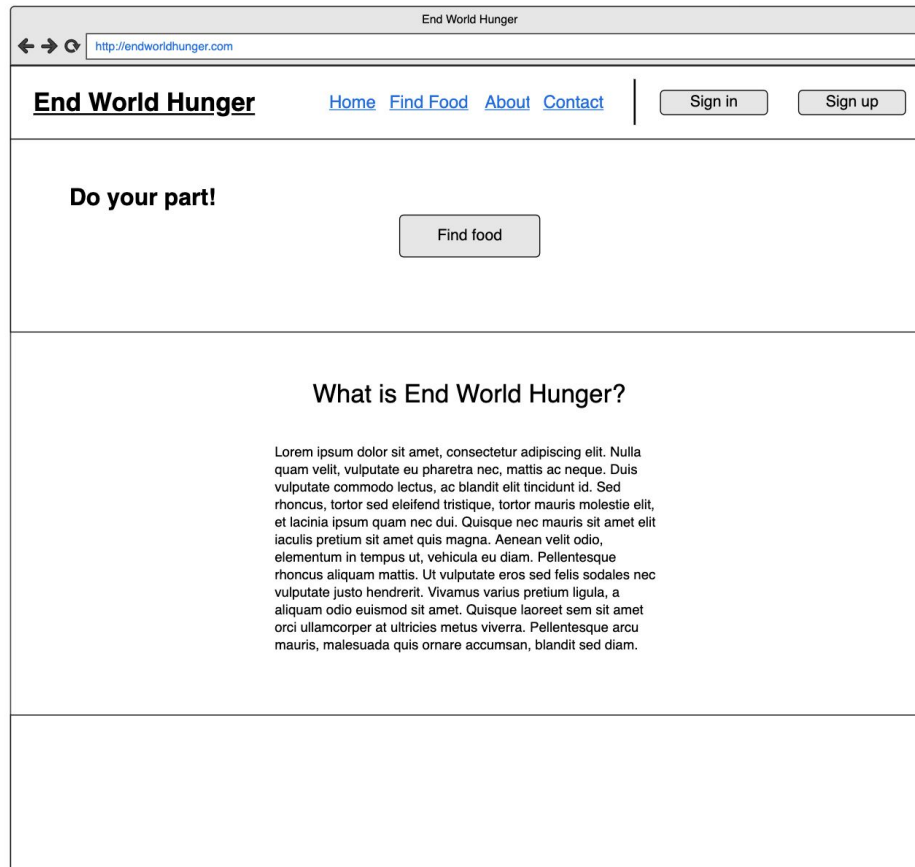
Please help others understand your rating (up to 250 characters)

Submit Review

Consumer can leave a rating out of 5 and a review, and press "Submit Review" to submit the review.

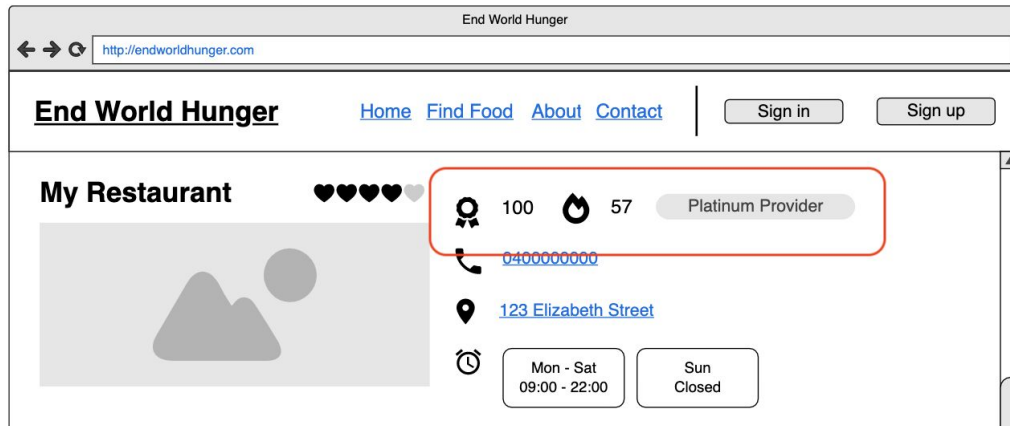
6.2-Awards system and static pages (Jina)

6.2.1-Index page for new users



The index page will be the first thing that new users (or logged out users) will see upon visiting our site. Main information such as what our site is about, how they can use it and how they can contribute to the cause will be the main highlight of this page. It will allow users to sign in or sign up.

6.2.2-Provider streaks and badges



On the provider's profile page, it will display the provider's points, their streak and if the provider has one an award. These are highlighted in the red rectangle above.

6.2.3-Leaderboard

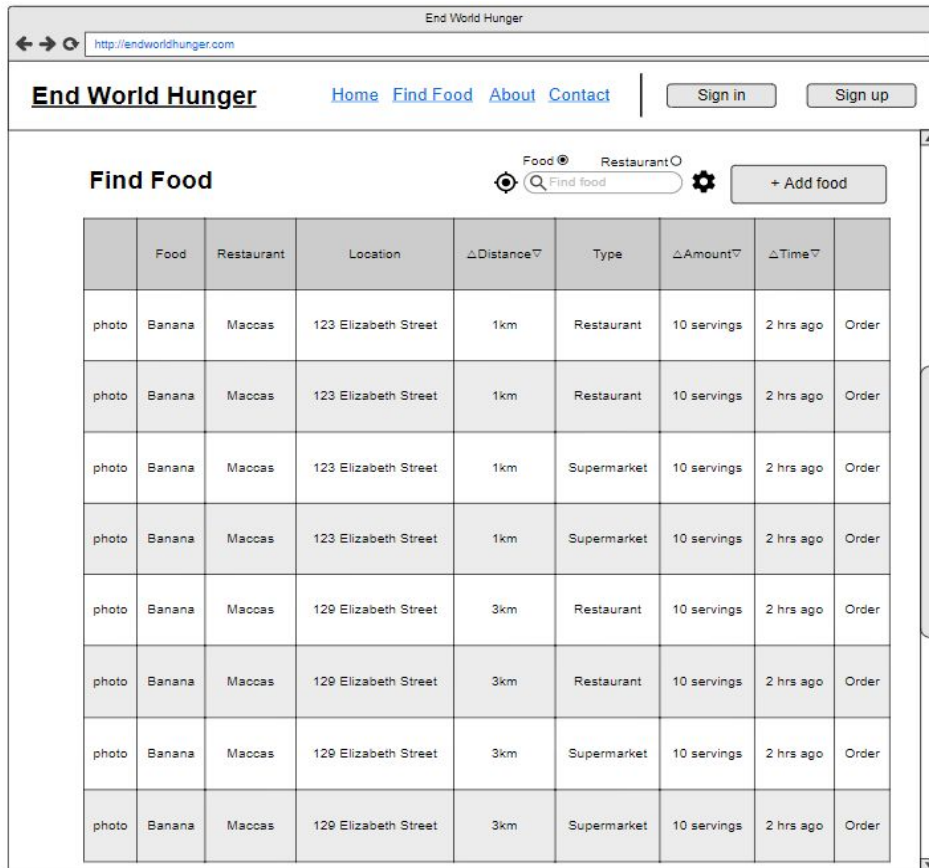
Rank	Provider	Points
1	Maccas	100
2	KFC	90
3	James' Greek Gyros	80
4	Restaurant	xx
5	Restaurant	xx
6	Restaurant	xx
7	Restaurant	xx

The leaderboard allows users to see which provider is performing the best, ranked by their points. Users can toggle the leaderboard view between 'this week', 'this month' and 'of all time'.

6.3-Search (James)

The food listings page is where our users will mostly spend their time. Providers will be able to register any available food here, whereas Individuals and Organisations can use this page to look up available food and search using several filters (i.e. name of food, restaurant and location). Note that the 'Add Food' button is only shown if you are logged in as a provider.

6.3.1-Search Results-Food



The screenshot shows a web browser window with the URL <http://endworldhunger.com>. The page has a navigation bar with links: Home, Find Food, About, Contact, Sign in, and Sign up. Below the navigation bar, there is a 'Find Food' section with a search bar containing 'Find food' and a '+ Add food' button. The search results are displayed in a table with the following columns: Food, Restaurant, Location, ΔDistance, Type, ΔAmount, and ΔTime. The table contains 8 rows of data, all for 'Banana' at 'Maccas'.

	Food	Restaurant	Location	ΔDistance	Type	ΔAmount	ΔTime	
photo	Banana	Maccas	123 Elizabeth Street	1km	Restaurant	10 servings	2 hrs ago	Order
photo	Banana	Maccas	123 Elizabeth Street	1km	Restaurant	10 servings	2 hrs ago	Order
photo	Banana	Maccas	123 Elizabeth Street	1km	Supermarket	10 servings	2 hrs ago	Order
photo	Banana	Maccas	123 Elizabeth Street	1km	Supermarket	10 servings	2 hrs ago	Order
photo	Banana	Maccas	129 Elizabeth Street	3km	Restaurant	10 servings	2 hrs ago	Order
photo	Banana	Maccas	129 Elizabeth Street	3km	Restaurant	10 servings	2 hrs ago	Order
photo	Banana	Maccas	129 Elizabeth Street	3km	Supermarket	10 servings	2 hrs ago	Order
photo	Banana	Maccas	129 Elizabeth Street	3km	Supermarket	10 servings	2 hrs ago	Order

Users can use the 'Find Food' functionality to search for food near their location. They are able to sort the 'Distance', 'Type' and 'Time' results columns in ascending/descending order. If the user wishes to optimise their search query, they can click on the cogwheel to open an advanced search panel.

6.3.2-Search Results-Food-Advanced

The screenshot shows the 'End World Hunger' website interface. The main heading is 'Find Food'. Below it, there's a search bar with 'Find food' and a settings gear icon. The 'Advanced Search Features' panel is open, showing sliders for Distance (Min/Max), Amount (Min/Max), and Time (Min/Max). There's a 'Types' section with a checkbox and a dropdown menu, and a 'Custom Location' section with an 'Address' input field.

	Food	Restaurant	Location	△Distance▽	Type	△Amount		
photo	Banana	Maccas	123 Elizabeth Street	1km	Restaurant	10 serving		
photo	Banana	Maccas	123 Elizabeth Street	1km	Restaurant	10 serving		
photo	Banana	Maccas	123 Elizabeth Street	1km	Supermarket	10 servings	2 hrs ago	Order
photo	Banana	Maccas	123 Elizabeth Street	1km	Supermarket	10 servings	2 hrs ago	Order
photo	Banana	Maccas	129 Elizabeth Street	3km	Restaurant	10 servings	2 hrs ago	Order
photo	Banana	Maccas	129 Elizabeth Street	3km	Restaurant	10 servings	2 hrs ago	Order
photo	Banana	Maccas	129 Elizabeth Street	3km	Supermarket	10 servings	2 hrs ago	Order
photo	Banana	Maccas	129 Elizabeth Street	3km	Supermarket	10 servings	2 hrs ago	Order

If the user opens the advanced panel, they are able to choose a set range for the 'Distance', 'Amount' and 'Time' parameters. They are also able to select only certain types of providers and are able to input a custom location if they do not wish to use their device's GPS.

6.3.3-Search Results-Restaurant

End World Hunger

[Home](#) [Find Food](#) [About](#) [Contact](#) | [Sign in](#) [Sign up](#)

Find Restaurant

Food ☐ Restaurant ☒ Find Restaurant + Add food

	Restaurant	Location	△Distance▽	Type	△Amount▽	△Time▽
photo	Maccas	123 Elizabeth Street	1km	Restaurant	10 servings	2 hrs ago
photo	Maccas	123 Elizabeth Street	1km	Restaurant	10 servings	2 hrs ago
photo	Maccas	123 Elizabeth Street	1km	Supermarket	10 servings	2 hrs ago
photo	Maccas	123 Elizabeth Street	1km	Supermarket	10 servings	2 hrs ago
photo	Maccas	129 Elizabeth Street	3km	Restaurant	10 servings	2 hrs ago
photo	Maccas	129 Elizabeth Street	3km	Restaurant	10 servings	2 hrs ago
photo	Maccas	129 Elizabeth Street	3km	Supermarket	10 servings	2 hrs ago
photo	Maccas	129 Elizabeth Street	3km	Supermarket	10 servings	2 hrs ago

If a user selects the 'Restaurant' radiobox, they will be able to search by restaurant. The ordering functions maintain the same functionality as the ones found in 'Search Results-Food'-6.3.1.

6.3.4-Search Results-Restaurant-Advanced

The screenshot shows the 'End World Hunger' website with the URL <http://endworldhunger.com>. The navigation bar includes links for Home, Find Food, About, and Contact, along with Sign in and Sign up buttons. The main section is titled 'Find Restaurant' and features a search bar with a magnifying glass icon and a gear icon for settings. Below the search bar is a table of search results.

	Food	Restaurant	Location	ΔDistance	Type		
photo	Banana	Maccas	123 Elizabeth Street	1km	Restaurant	10 servings	2 hrs ago
photo	Banana	Maccas	123 Elizabeth Street	1km	Restaurant	10 servings	2 hrs ago
photo	Banana	Maccas	123 Elizabeth Street	1km	Supermarket	10 servings	2 hrs ago
photo	Banana	Maccas	123 Elizabeth Street	1km	Supermarket	10 servings	2 hrs ago
photo	Banana	Maccas	129 Elizabeth Street	3km	Restaurant	10 servings	2 hrs ago
photo	Banana	Maccas	129 Elizabeth Street	3km	Restaurant	10 servings	2 hrs ago
photo	Banana	Maccas	129 Elizabeth Street	3km	Supermarket	10 servings	2 hrs ago
photo	Banana	Maccas	129 Elizabeth Street	3km	Supermarket	10 servings	2 hrs ago

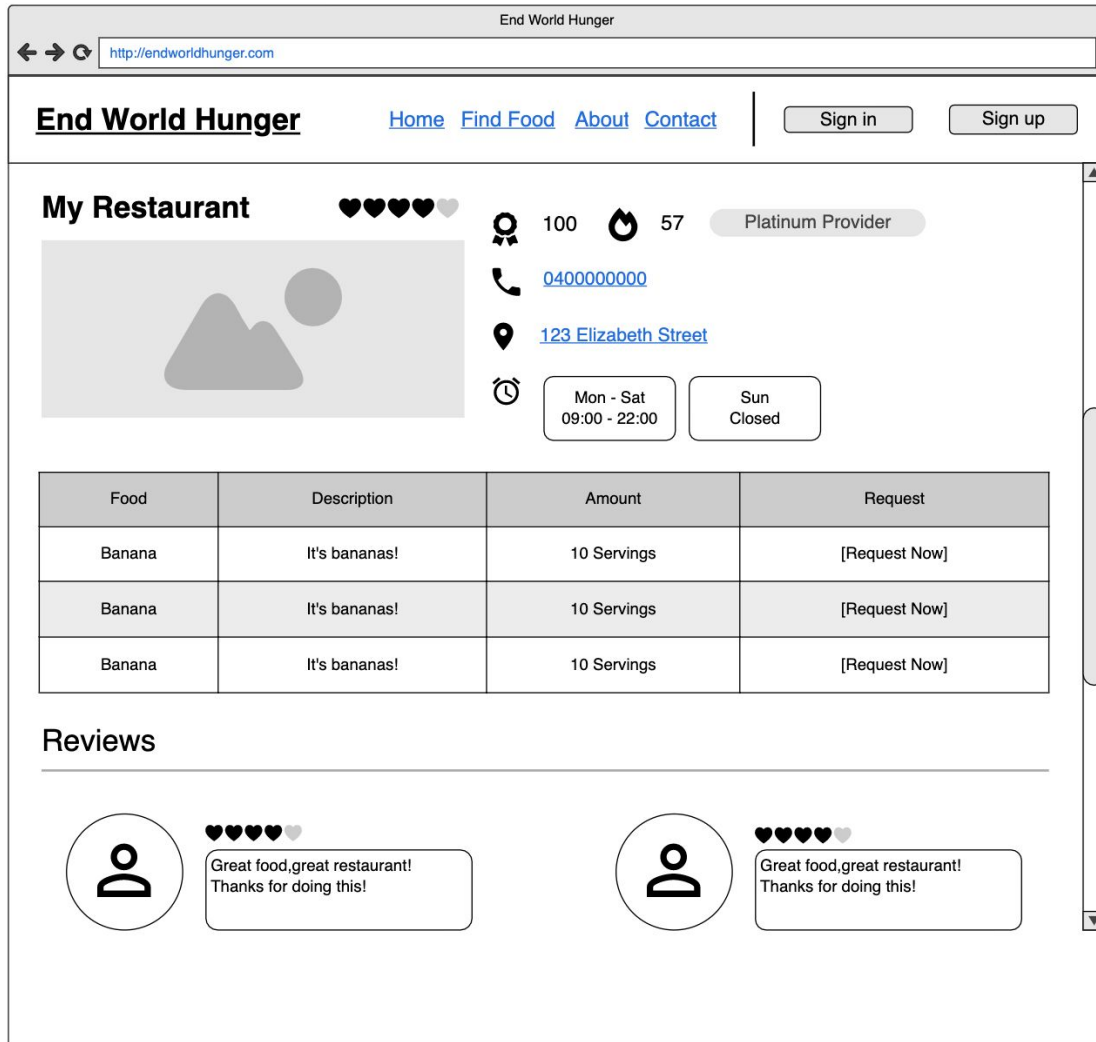
The advanced search panel on the right includes the following features:

- Distance (Min/Max): A slider control.
- Amount (Min/Max): A slider control.
- Time (Min/Max): A slider control.
- Types: A dropdown menu with a checkmark icon.
- Custom Location: A text input field labeled 'Address'.

This advanced search pane maintains the same functionality as the one found in 'Search Results-Food-Advanced'-6.3.2.

6.4-Food provider (Hamesh)

6.4.1-Food provider page



Upon clicking a specific restaurant from the listing page, users will be redirected to the provider's page. Here, consumers (Individuals and Organisations) are able to view available foods from a specific provider and optionally create a food request or leave an anonymous review.

6.5-User management (Alvin)

6.5.1-Register/Login

Register

Provider
?

Restaurant Name
Maccas

Business Email
john.smith@example.com

Business Contact Number
+61400000000

Location

Password

Confirm Password

Verification code
[Send Code](#)

123456

By clicking Sign Up, you agree to our [Terms](#) and that you have read our [Data Use Policy](#), including our [Cookie Use](#).

Sign Up

Register

Individual
?

First name
John

Last name
Smith

Email
john.smith@example.com

Phone number
+61400000000

Password

Confirm Password

By clicking Sign Up, you agree to our [Terms](#) and that you have read our [Data Use Policy](#), including our [Cookie Use](#).

Sign Up

Register

Organisation
?

Organisation name
John Smith Foundation

Email
john.smith@example.com

Phone number
+61400000000

Password

Confirm Password

Verification code
[Send Code](#)

123456

By clicking Sign Up, you agree to our [Terms](#) and that you have read our [Data Use Policy](#), including our [Cookie Use](#).

Sign Up

Email
testuser@testdomain.com

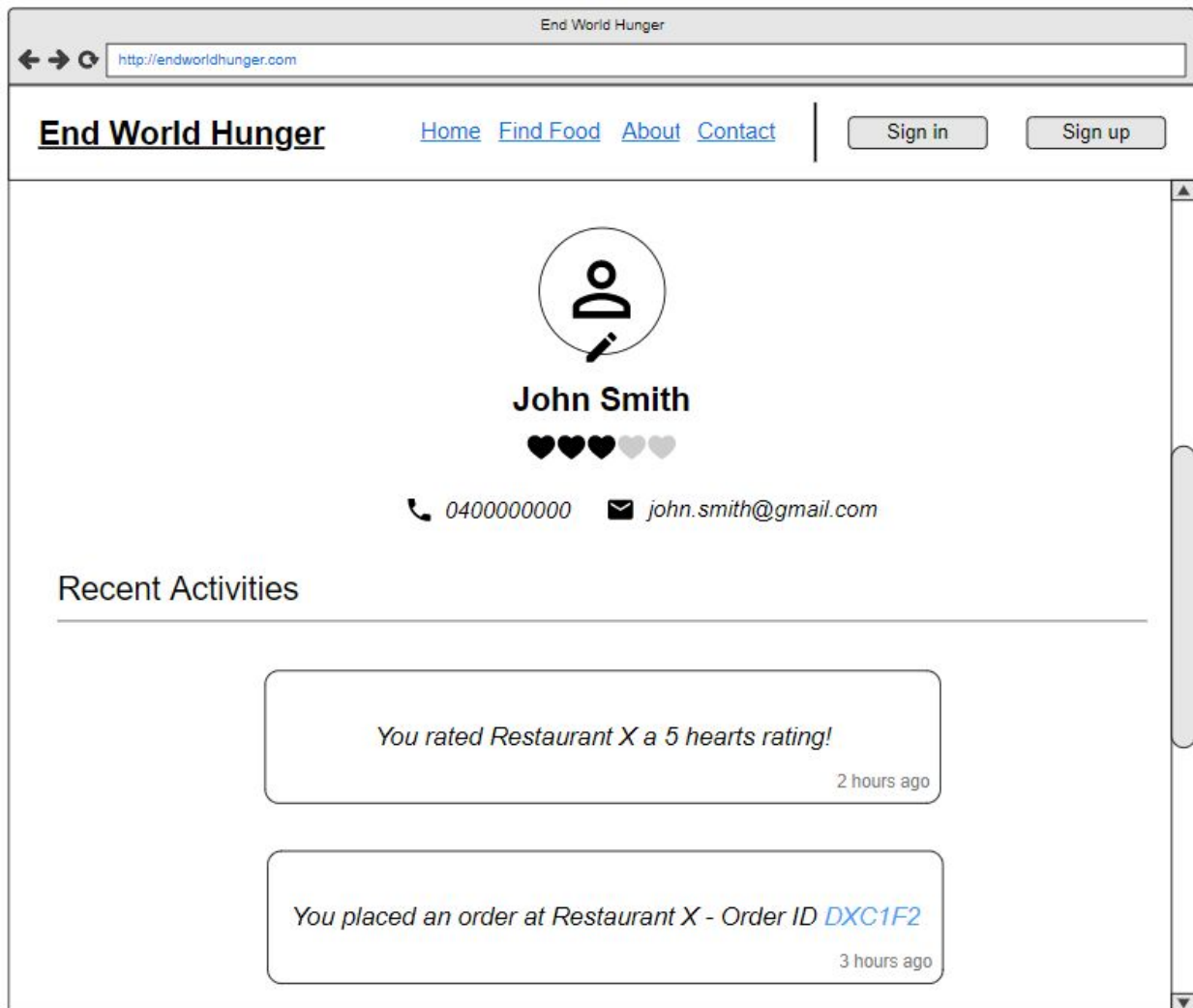
Password

Login

Registration will be separated into 3 different categories which are Individual, Charity/Organisation and Providers.

- Individuals: our main general user.
- Charity/Organisation: similar to Individuals but with higher allowed capacity when ordering food.
- Providers: restaurants/store owners which would register available food to the site.

6.5.2-Consumer profile page



Each user will have their own personal page. Here, the users will be able to view their recent activities, orders, and view or update their personal details.

6.5.3-Admin Dashboard-Search user

The screenshot shows the 'Admin Dashboard' of the 'End World Hunger' website. The dashboard includes a search bar and tabs for 'Search', 'Reported', and 'Banned'. The 'Search' tab is active, displaying a table of users.

▼ Id	▼ Type	▼ Name	▼ Email	▼ Phone no.	▼ Status
1	Individual	Alvin Ho	alvin@gmail.com	12345678	Active <input checked="" type="radio"/> Lock <input type="radio"/>
2	Individual	Hamesh Ranpara	hamesh@gmail.com	12345678	Active <input checked="" type="radio"/> Lock <input type="radio"/>
3	Provider	James Gyros	jgyros@gmail.com	12345678	Active <input checked="" type="radio"/> Lock <input type="radio"/>
4	Provider	Jina Diamond Seafood	jdiamond@gmail.com	12345678	Active <input checked="" type="radio"/> Lock <input type="radio"/>
5	Provider	Rona Rolls	rrolls@gmail.com	12345678	Active <input checked="" type="radio"/> Lock <input type="radio"/>
6	Organisation	Eat Well Foundation	eatwell@charity.org	12345678	Active <input checked="" type="radio"/> Lock <input type="radio"/>
7	Organisation	Stop Hunger	stop.hunger.org	12345678	Active <input checked="" type="radio"/> Lock <input type="radio"/>
8	Provider	McDonalds	maccas.sydney.au	12345678	Active <input checked="" type="radio"/> Lock <input type="radio"/>
9	Provider	Woolworths	woolies.sydney.au	12345678	Active <input checked="" type="radio"/> Lock <input type="radio"/>
10	Individual	John Stavrakakis	jkakis@gmail.com	12345678	Active <input checked="" type="radio"/> Lock <input type="radio"/>

When logged in as an admin user, they are able to view all existing users in the system. Search will be used to find specific attribute of a user. Active user will be able to interact in the site, locked users will be prevented to login, order food and add food to the system.

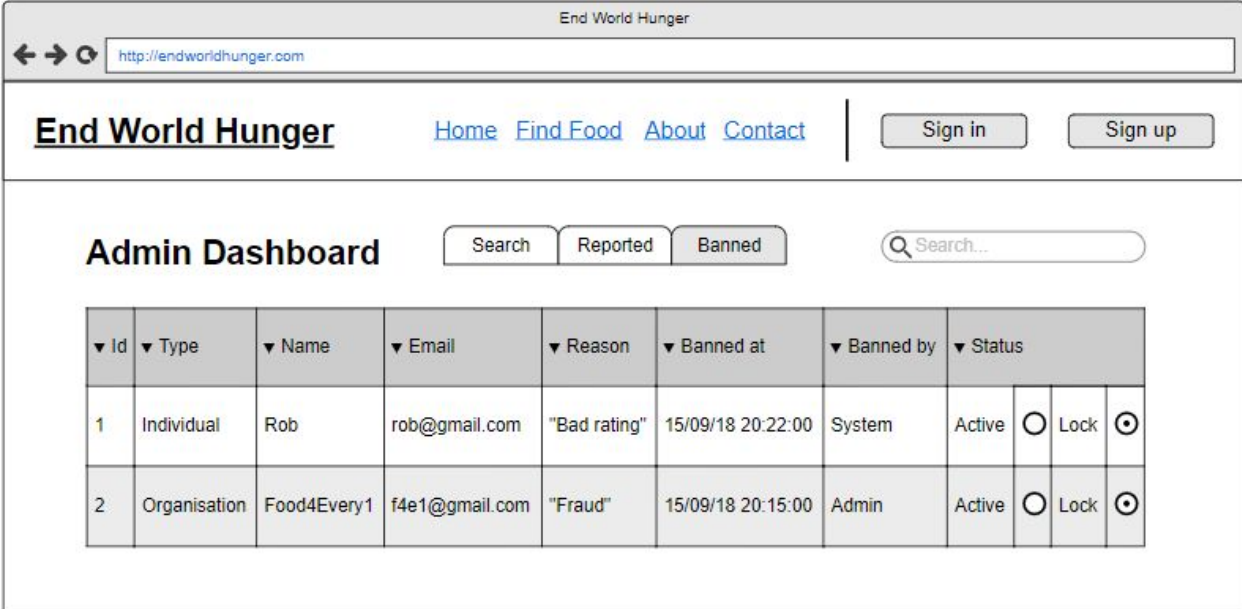
6.5.4-Admin Dashboard-Reported user

The screenshot shows the 'Admin Dashboard' of the 'End World Hunger' website. The dashboard includes a search bar and tabs for 'Search', 'Reported', and 'Banned'. The 'Reported' tab is active, displaying a table of reported users.

▼ Id	▼ Type	▼ Name	▼ Email	▼ Reason	▼ Reported at	▼ Reported by	▼ Status
1	Individual	Rob	rob@gmail.com	"Did not pick up after ordering - OrderID: DXCH1F"	15/09/18 20:22:00	Restaurant X	Active <input checked="" type="radio"/> Lock <input type="radio"/> Resolve <input type="checkbox"/>
2	Provider	Restaurant X	xResto@gmail.com	"Uncontactable restaurant"	15/09/18 20:15:00	Rob	Active <input checked="" type="radio"/> Lock <input type="radio"/> Resolve <input type="checkbox"/>

Any types of user can be reported, where an admin could manually check/review the report and lock accounts if necessary. Reports can be resolved to remove them from the list.

6.5.5-Admin Dashboard-Banned user



The screenshot shows a web browser window with the address bar displaying "http://endworldhunger.com". The page title is "End World Hunger". The navigation bar includes links for "Home", "Find Food", "About", and "Contact", along with "Sign in" and "Sign up" buttons. The main content area is titled "Admin Dashboard" and features tabs for "Search", "Reported", and "Banned". A search bar is also present. Below the tabs is a table listing banned users.

▼ Id	▼ Type	▼ Name	▼ Email	▼ Reason	▼ Banned at	▼ Banned by	▼ Status
1	Individual	Rob	rob@gmail.com	"Bad rating"	15/09/18 20:22:00	System	Active <input type="radio"/> Lock <input checked="" type="radio"/>
2	Organisation	Food4Every1	f4e1@gmail.com	"Fraud"	15/09/18 20:15:00	Admin	Active <input type="radio"/> Lock <input checked="" type="radio"/>

Users can be banned in 2 ways:

- Banned by **admin**: A user is locked after manual report review
- Banned by **system**: A user has either received too many reports (after a certain threshold) or has a very low rating, hence locked automatically.

7.Conclusion

EWB connects food providers and consumers with the goal to minimise food wastage. Our project team has chosen to combat food wastage because minimising this wastage would tackle hunger, environmental issues, and operating costs for charities.

EWB will be hosted as a web application using the Spring framework and structured around a Model-View-Controller architecture, with a MySQL database in conjunction with Hibernate.

The project has been divided into five components with each component allocated to a team member. Over this semester, we will develop our project through completing our designated parts and [Project Plan](#) milestones. By encouraging corporate social responsibility and complimentary food, we progress into a world with less food wastage and revitalise our appreciation of food.

References

Australian Ethical Investment Ltd. (2019). *Food waste: a growing Australian problem*.

Retrieved from Australian Ethical:

<https://www.australianethical.com.au/news/food-waste-growing-australian-problem/>

Oz Harvest. (2019). *Food Waste Facts*. Retrieved from Oz Harvest:

<https://www.ozharvest.org/what-we-do/environment-facts/>













Victoria State Government. (2019). *Love Food Hate Waste*. Retrieved from Sustainability

Victoria: <https://www.sustainability.vic.gov.au/campaigns/love-food-hate-waste>

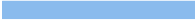










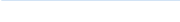







Appendix













Word count of **Introduction** to **Conclusion** (not including cover page, contents, references, and appendix): 1994 words (Used <https://wordcounter.io>)

Appendix 1 - Gantt Chart

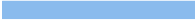










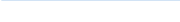







ID	Task Mode	Task Name	Duration	Start	Finish	Predecessors	26	29
1		University Schedule	93 days	Mon 8/5/19	Tue 11/5/19			
2		Week 1	7 days	Mon 8/5/19	Sun 8/11/19			
3		Create Groups	7 days	Mon 8/5/19	Sun 8/11/19			
4		Week 2	7 days	Mon 8/12/19	Sun 8/18/19	2		
5		Brainstorm Project Ideas	7 days	Mon 8/12/19	Sun 8/18/19			
6		Week 3	7 days	Mon 8/19/19	Sun 8/25/19	4		
7		Decide On Project Idea	2 days	Mon 8/19/19	Tue 8/20/19			
8		Delegate Parts For Proposal	1 day	Wed 8/21/19	Wed 8/21/19	7		
9		Create Scaffold For Proposal	1 day	Thu 8/22/19	Thu 8/22/19	8		
10		Begin Work On Draft Proposal	3 days	Fri 8/23/19	Sun 8/25/19	9		
11		Week 4	7 days	Mon 8/26/19	Sun 9/1/19	6		
12		Continue Work On Draft Proposal	2 days	Mon 8/26/19	Tue 8/27/19			







Project: ELEC5619
Date: Sun 9/15/19

Task		Inactive Summary		External Tasks	
Split		Manual Task		External Milestone	
Milestone		Duration-only		Deadline	
Summary		Manual Summary Rollup		Progress	
Project Summary		Manual Summary		Manual Progress	
Inactive Task		Start-only			
Inactive Milestone		Finish-only			

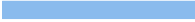










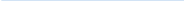







ID	Task Mode	Task Name	Duration	Start	Finish	Predecessors	26	29
13		Draft Proposal Due	0 days	Tue 8/27/19	Tue 8/27/19	12		
14		Modify Draft Proposal Based On Feedback	5 days	Wed 8/28/19	Sun 9/1/19	13		
15		Week 5	7 days	Mon 9/2/19	Sun 9/8/19	11		
16		Continue Work On Final Proposal	2 days	Mon 9/2/19	Tue 9/3/19			
17		Ask Tutors For Feedback On Current Progress	0 days	Tue 9/3/19	Tue 9/3/19	16		
18		Decide On Implementation Specifics For Project	1 day	Wed 9/4/19	Wed 9/4/19	17		
19		Delegate Work For Project Implementation/Final Proposal	1 day	Thu 9/5/19	Thu 9/5/19	18		
20		Continue Work On Final Proposal	3 days	Fri 9/6/19	Sun 9/8/19	19		
21		Week 6	7 days	Mon 9/9/19	Sun 9/15/19	15		
22		Continue Work On Final Proposal	2 days	Mon 9/9/19	Tue 9/10/19			
23		Ask Tutors For Feedback On Current Progress	0 days	Tue 9/10/19	Tue 9/10/19	22		
24		Finalise Final Proposal	5 days	Wed 9/11/19	Sun 9/15/19	23		













Project: ELEC5619
Date: Sun 9/15/19

Task		Inactive Summary		External Tasks	
Split		Manual Task		External Milestone	
Milestone		Duration-only		Deadline	
Summary		Manual Summary Rollup		Progress	
Project Summary		Manual Summary		Manual Progress	
Inactive Task		Start-only			
Inactive Milestone		Finish-only			

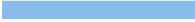










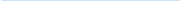







ID	Task Mode	Task Name	Duration	Start	Finish	Predecessors	26	29
25		Submit Final Proposal	0 days	Sun 9/15/19	Sun 9/15/19	24		
26		Week 7	7 days	Mon 9/16/19	Sun 9/22/19	21		
27		Setup Version Control Repository And Branches For Project	2 days	Mon 9/16/19	Tue 9/17/19			
28		Begin Work On Project Implementation	5 days	Wed 9/18/19	Sun 9/22/19	27		
29		Week 8	7 days	Mon 9/23/19	Sun 9/29/19	26		
30		Continue Work On Project Implementation	2 days	Mon 9/23/19	Tue 9/24/19			
31		Revise Individual Progress And Ensure Project Is Following The Correct Trajectory	0 days	Tue 9/24/19	Tue 9/24/19	30		
32		Create Documentation Scaffold	1 day	Wed 9/25/19	Wed 9/25/19	31		
33		Continue Work On Project Implementation	4 days	Thu 9/26/19	Sun 9/29/19	32		
34		Begin Work On Documentation	4 days	Thu 9/26/19	Sun 9/29/19	32		
35		Mid Semester Break	7 days	Mon 9/30/19	Sun 10/6/19	29		
36		Continue Work On Project Implementation	7 days	Mon 9/30/19	Sun 10/6/19			

Project: ELEC5619
Date: Sun 9/15/19

Task		Inactive Summary		External Tasks	
Split		Manual Task		External Milestone	
Milestone		Duration-only		Deadline	
Summary		Manual Summary Rollup		Progress	
Project Summary		Manual Summary		Manual Progress	
Inactive Task		Start-only			
Inactive Milestone		Finish-only			

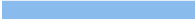










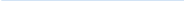







ID	Task Mode	Task Name	Duration	Start	Finish	Predecessors	26	29
37		Continue Work On Documentation	7 days	Mon 9/30/19	Sun 10/6/19			
38		Week 9	7 days	Mon 10/7/19	Sun 10/13/19	35		
39		Continue Work On Project Implementation	2 days	Mon 10/7/19	Tue 10/8/19			
40		Continue Work On Documentation	2 days	Mon 10/7/19	Tue 10/8/19			
41		Check Project Progress In Regards To The Schedule And Outcomes Defined In Proposal	0 days	Tue 10/8/19	Tue 10/8/19	40,39		
42		Plan Quality Assurance Testing	1 day	Wed 10/9/19	Wed 10/9/19	41		
43		Begin Quality Assurance Testing	4 days	Thu 10/10/19	Sun 10/13/19	42		
44		Begin Finalising Project Implementation	5 days	Wed 10/9/19	Sun 10/13/19	41		
45		Continue Work On Documentation	5 days	Wed 10/9/19	Sun 10/13/19	41		
46		Week 10	7 days	Mon 10/14/19	Sun 10/20/19	38		
47		Finalise Project Implementation	2 days	Mon 10/14/19	Tue 10/15/19			
48		Continue Work On Documentation	2 days	Mon 10/14/19	Tue 10/15/19			

Project: ELEC5619
Date: Sun 9/15/19

Task		Inactive Summary		External Tasks	
Split		Manual Task		External Milestone	
Milestone		Duration-only		Deadline	
Summary		Manual Summary Rollup		Progress	
Project Summary		Manual Summary		Manual Progress	
Inactive Task		Start-only			
Inactive Milestone		Finish-only			

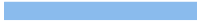


















ID	Task Mode	Task Name	Duration	Start	Finish	Predecessors	26	29
49		Continue Quality Assurance Testing	2 days	Mon 10/14/19	Tue 10/15/19			
50		Confirm Implementation Is Complete And Conforms To The Goals Set In The Proposal	0 days	Tue 10/15/19	Tue 10/15/19	47,48,49		
51		Touch Up Implementation If Necessary	5 days	Wed 10/16/19	Sun 10/20/19	50		
52		Begin Finalising Documentation	5 days	Wed 10/16/19	Sun 10/20/19	50		
53		Begin Finalising All Quality Assurance Testing	5 days	Wed 10/16/19	Sun 10/20/19	50		
54		Week 11	7 days	Mon 10/21/19	Sun 10/27/19	46		
55		Create Scaffold For Final Report & Delegate Tasks	1 day	Mon 10/21/19	Mon 10/21/19			
56		Work On Final Report Submission	6 days	Tue 10/22/19	Sun 10/27/19	55		
57		Finalise Quality Assurance Testing	2 days	Mon 10/21/19	Tue 10/22/19			
58		Project Demonstration	0 days	Tue 10/22/19	Tue 10/22/19	57		
59		Finalise Documentation	5 days	Wed 10/23/19	Sun 10/27/19	58		
60		Project Submission (Implementation + Documentation)	0 days	Sun 10/27/19	Sun 10/27/19	59		

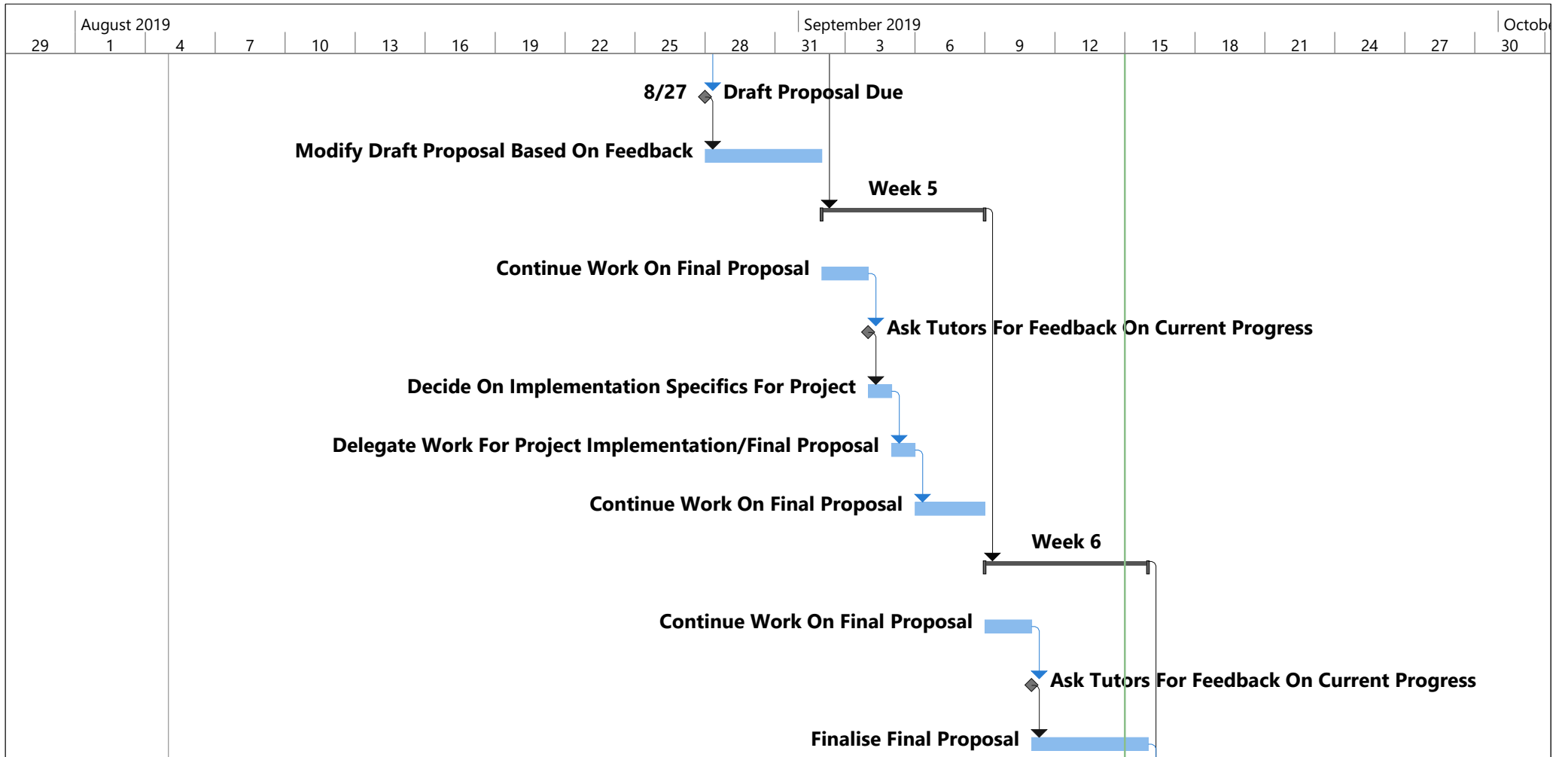
Project: ELEC5619
Date: Sun 9/15/19

Task		Inactive Summary		External Tasks	
Split		Manual Task		External Milestone	
Milestone		Duration-only		Deadline	
Summary		Manual Summary Rollup		Progress	
Project Summary		Manual Summary		Manual Progress	
Inactive Task		Start-only			
Inactive Milestone		Finish-only			

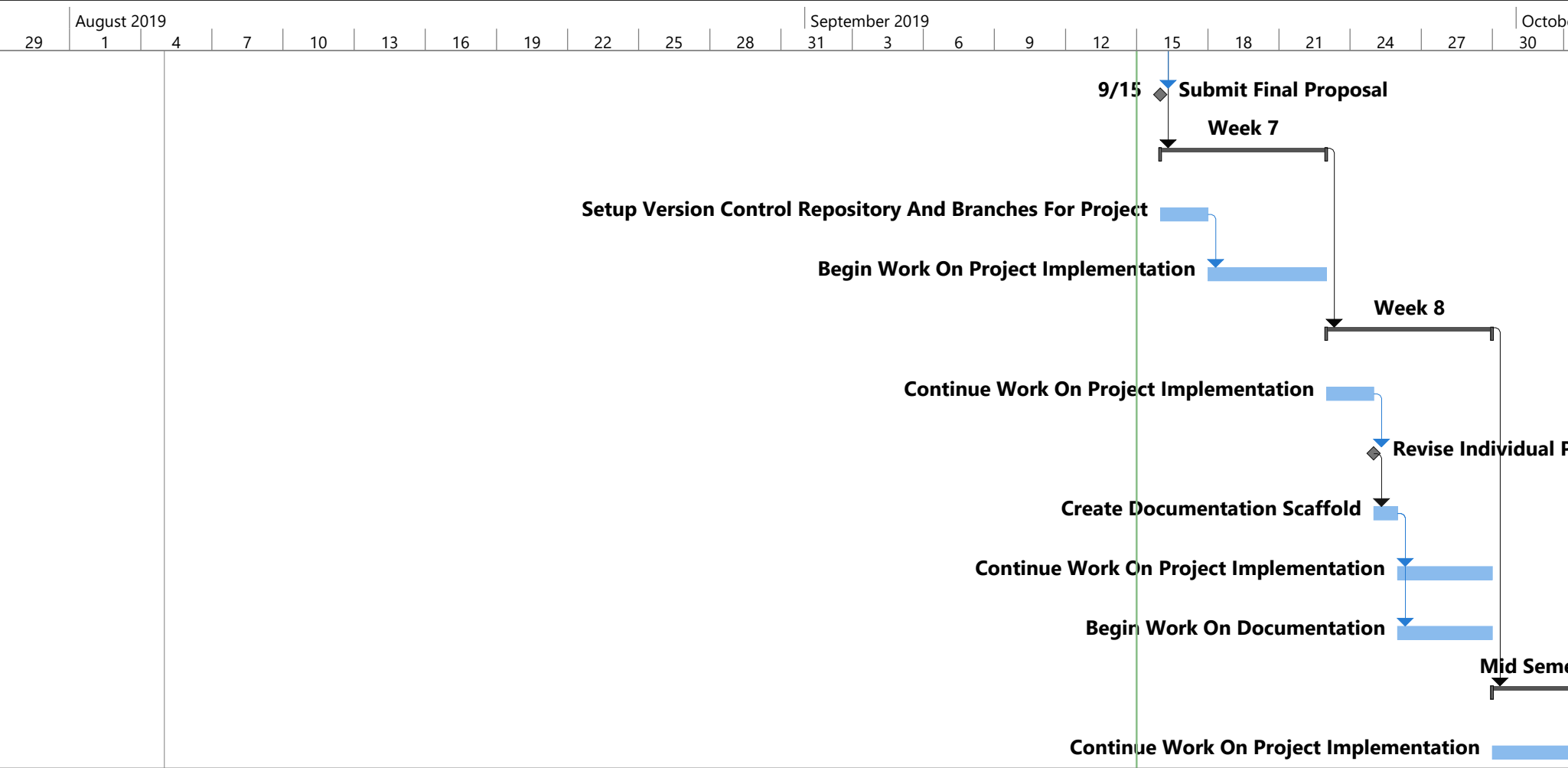
ID	Task Mode	Task Name	Duration	Start	Finish	Predecessors	26	29
61		Week 12	7 days	Sun 10/27/19	Sun 11/3/19	54		
62		Begin Project Presentation Planning	2 days	Mon 10/28/19	Tue 10/29/19			
63		Work On Presentation	5 days	Wed 10/30/19	Sun 11/3/19	62		
64		Continue Work On Final Report	6 days	Mon 10/28/19	Sat 11/2/19			
65		Finalise Final Report	1 day	Sun 11/3/19	Sun 11/3/19	64		
66		Final Report Submission	0 days	Sun 10/27/19	Sun 10/27/19			
67		Week 13	2 days	Mon 11/4/19	Tue 11/5/19	61		
68		Finish Up Project Presentation	2 days	Mon 11/4/19	Tue 11/5/19			
69		Presentation Date	0 days	Tue 11/5/19	Tue 11/5/19	68		

Project: ELEC5619
Date: Sun 9/15/19

Task		Inactive Summary		External Tasks	
Split		Manual Task		External Milestone	
Milestone		Duration-only		Deadline	
Summary		Manual Summary Rollup		Progress	
Project Summary		Manual Summary		Manual Progress	
Inactive Task		Start-only			
Inactive Milestone		Finish-only			






















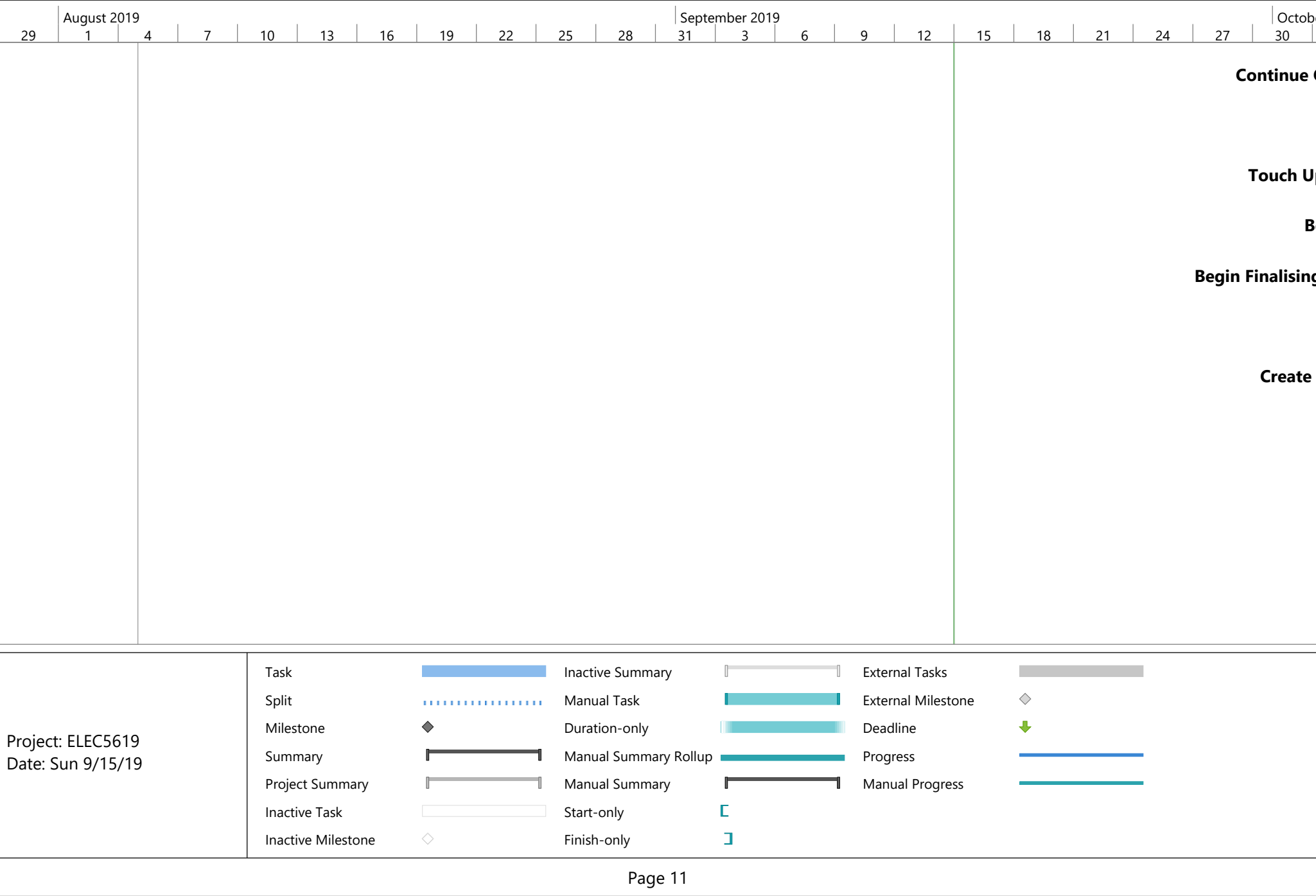
Project: ELEC5619 Date: Sun 9/15/19	Task		Inactive Summary		External Tasks	
	Split		Manual Task		External Milestone	
	Milestone		Duration-only		Deadline	
	Summary		Manual Summary Rollup		Progress	
	Project Summary		Manual Summary		Manual Progress	
	Inactive Task		Start-only			
	Inactive Milestone		Finish-only			

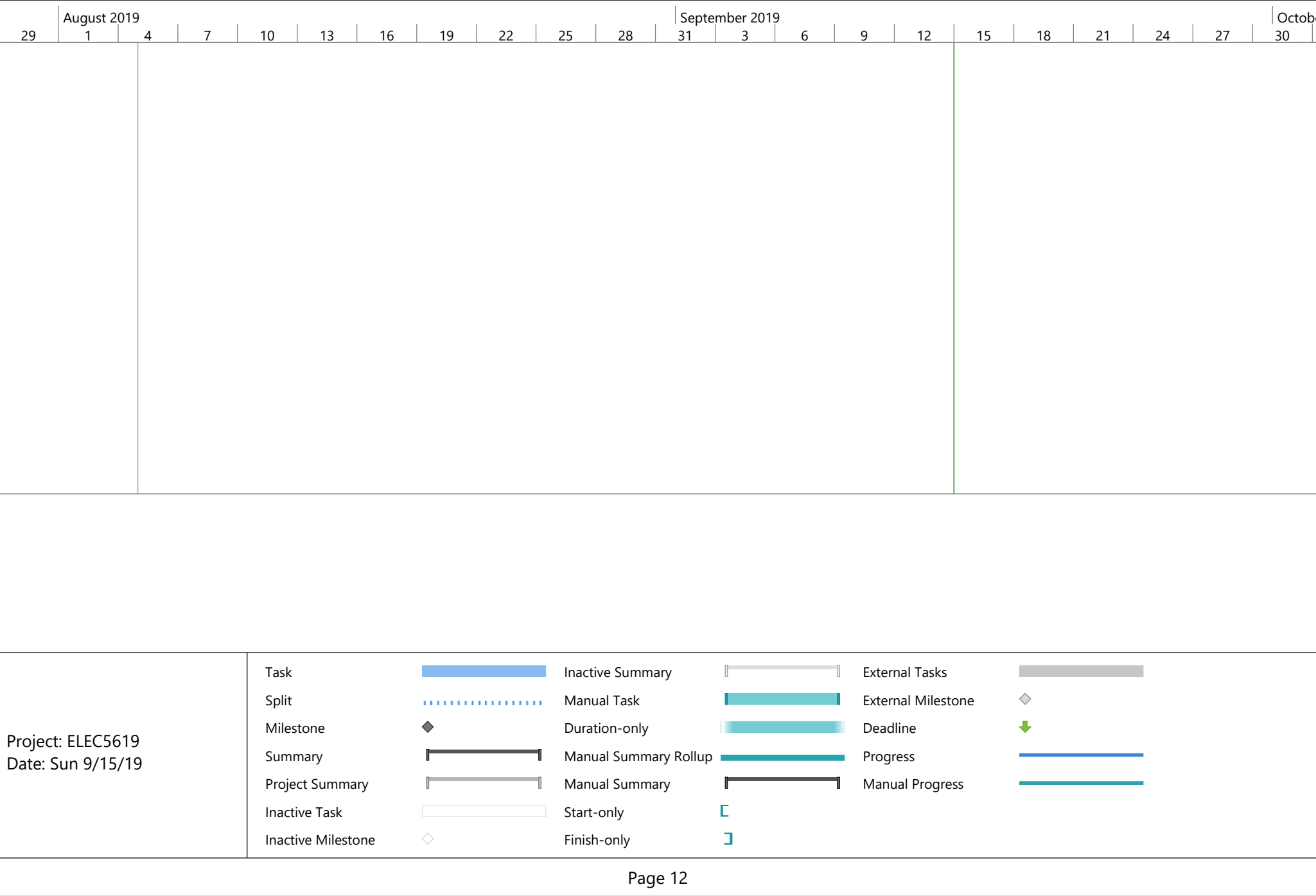


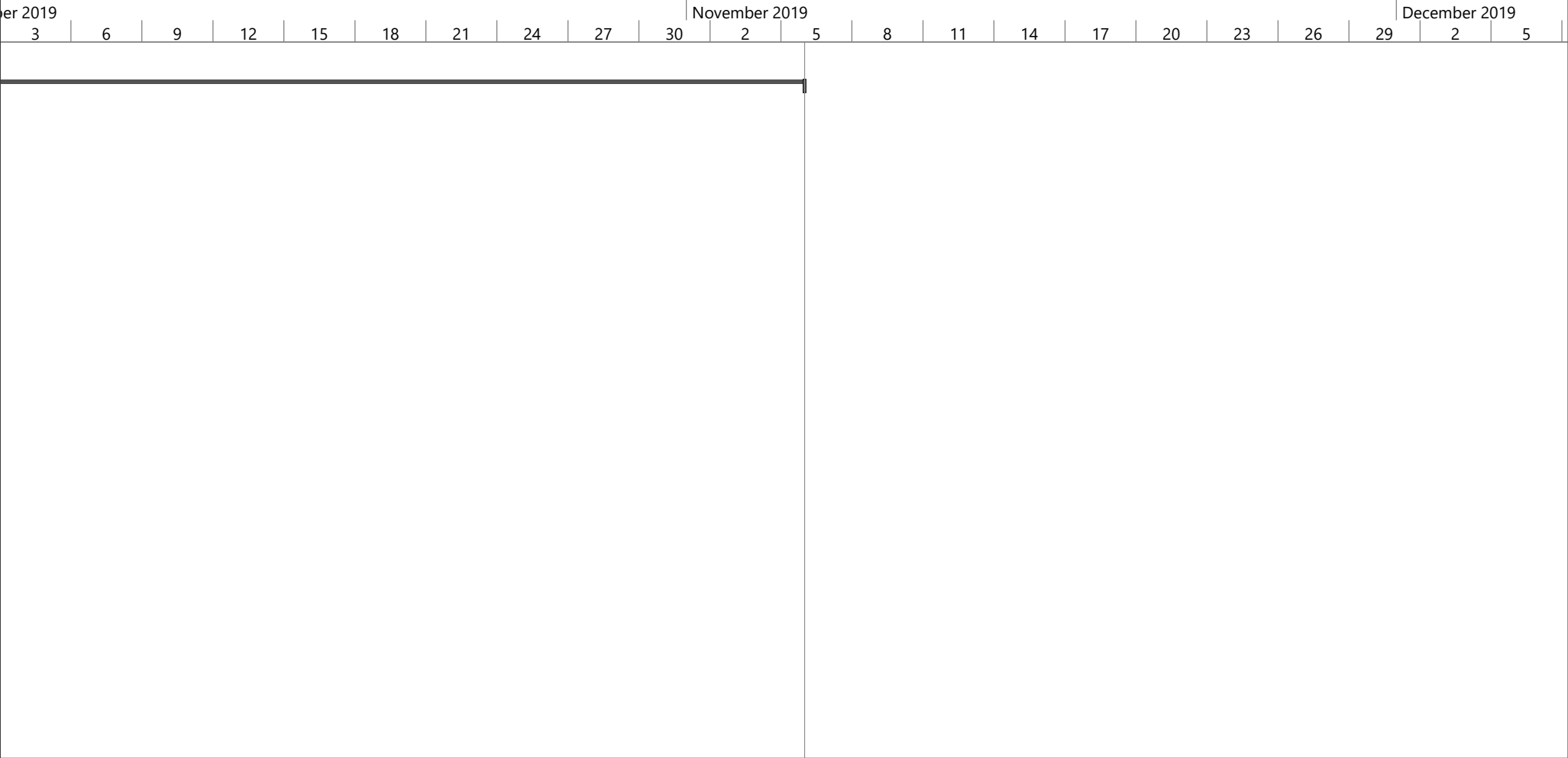
Project: ELEC5619 Date: Sun 9/15/19	Task		Inactive Summary		External Tasks	
	Split		Manual Task		External Milestone	
	Milestone		Duration-only		Deadline	
	Summary		Manual Summary Rollup		Progress	
	Project Summary		Manual Summary		Manual Progress	
	Inactive Task		Start-only			
	Inactive Milestone		Finish-only			






















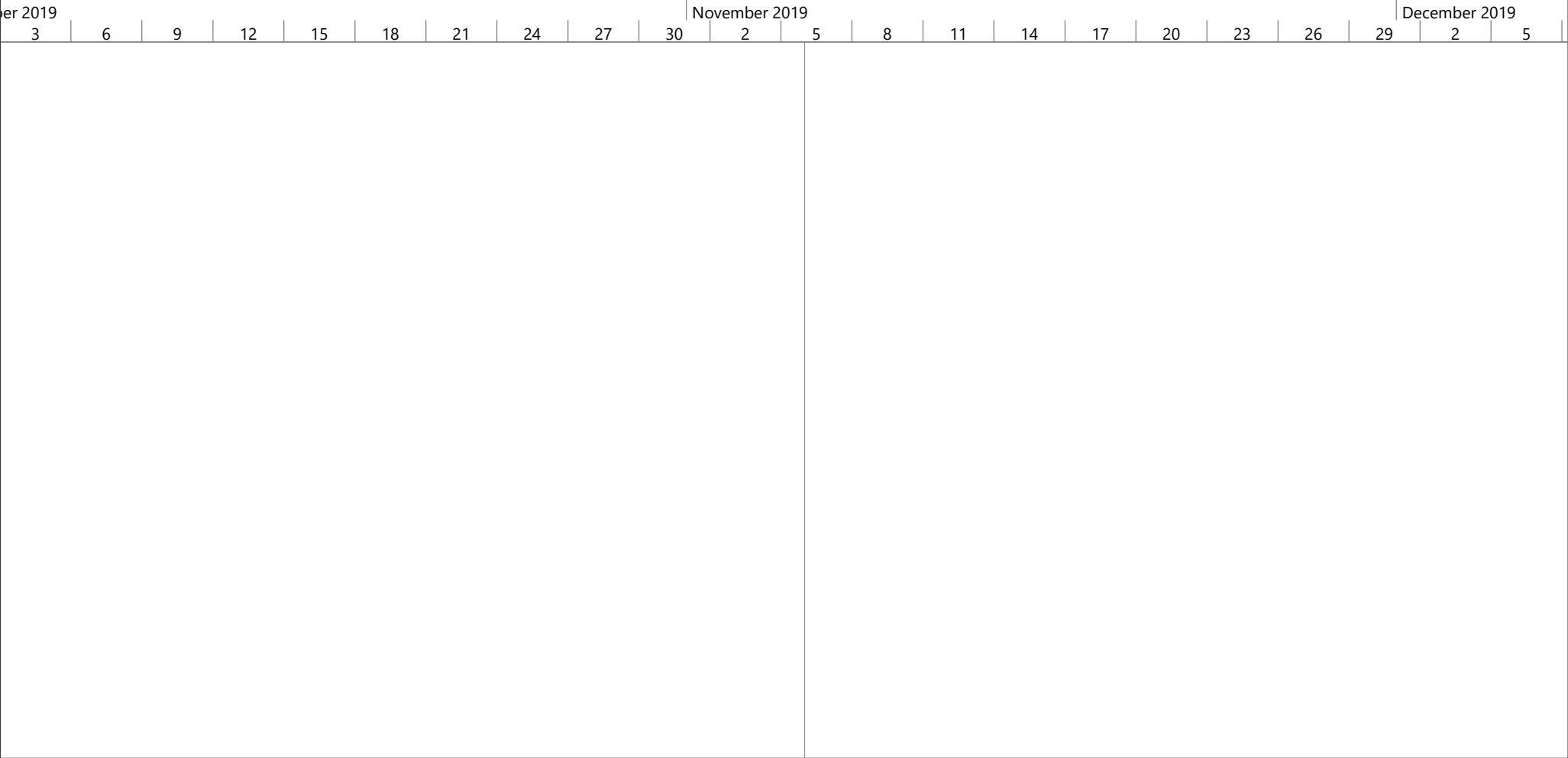
Project: ELEC5619 Date: Sun 9/15/19	Task		Inactive Summary		External Tasks	
	Split		Manual Task		External Milestone	
	Milestone		Duration-only		Deadline	
	Summary		Manual Summary Rollup		Progress	
	Project Summary		Manual Summary		Manual Progress	
	Inactive Task		Start-only			
	Inactive Milestone		Finish-only			


























Project: ELEC5619 Date: Sun 9/15/19	Task		Inactive Summary		External Tasks	
	Split		Manual Task		External Milestone	
	Milestone		Duration-only		Deadline	
	Summary		Manual Summary Rollup		Progress	
	Project Summary		Manual Summary		Manual Progress	
	Inactive Task		Start-only			
	Inactive Milestone		Finish-only			






















Project: ELEC5619 Date: Sun 9/15/19	Task		Inactive Summary		External Tasks	
	Split		Manual Task		External Milestone	
	Milestone		Duration-only		Deadline	
	Summary		Manual Summary Rollup		Progress	
	Project Summary		Manual Summary		Manual Progress	
	Inactive Task		Start-only			
	Inactive Milestone		Finish-only			

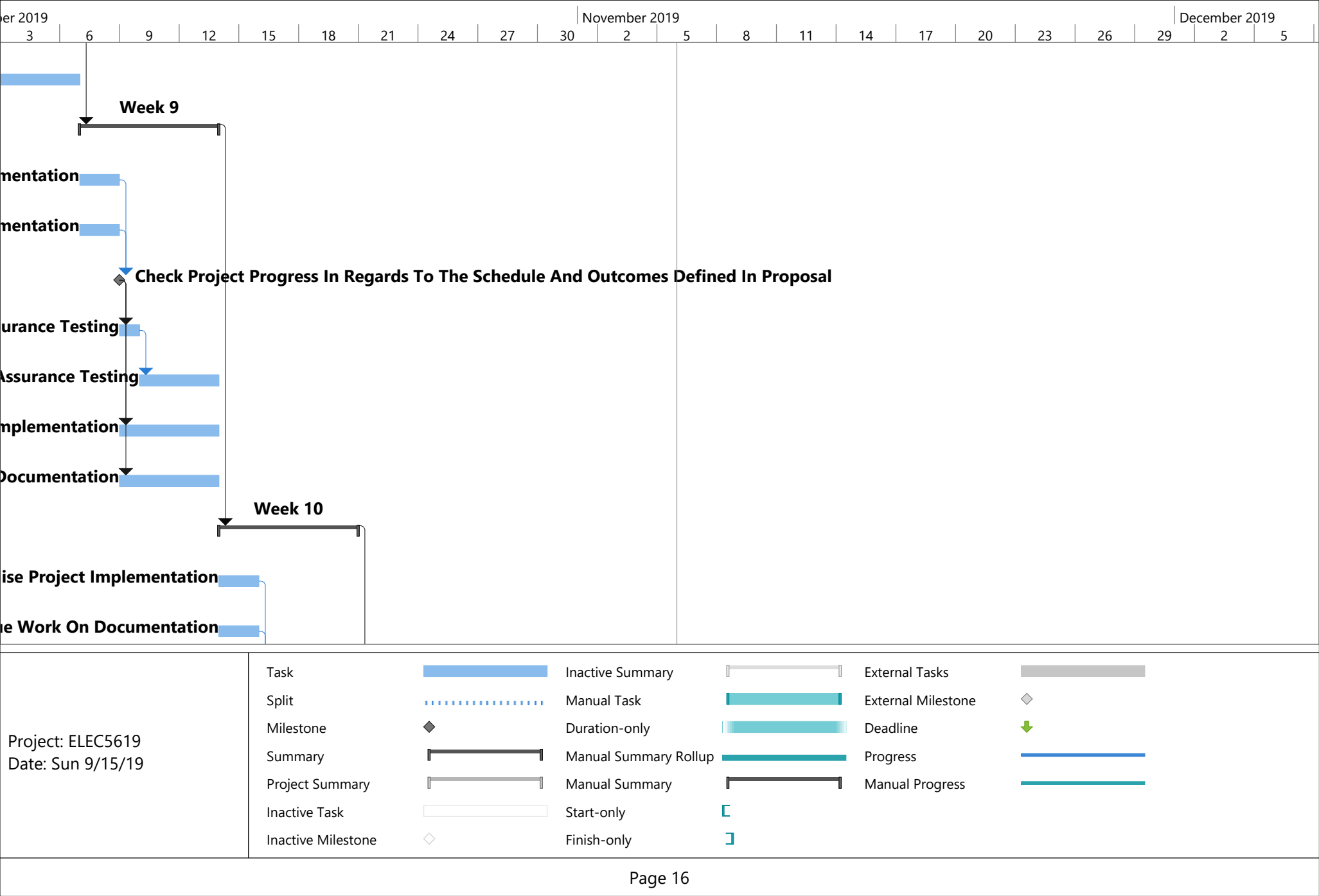
Progress And Ensure Project Is Following The Correct Trajectory

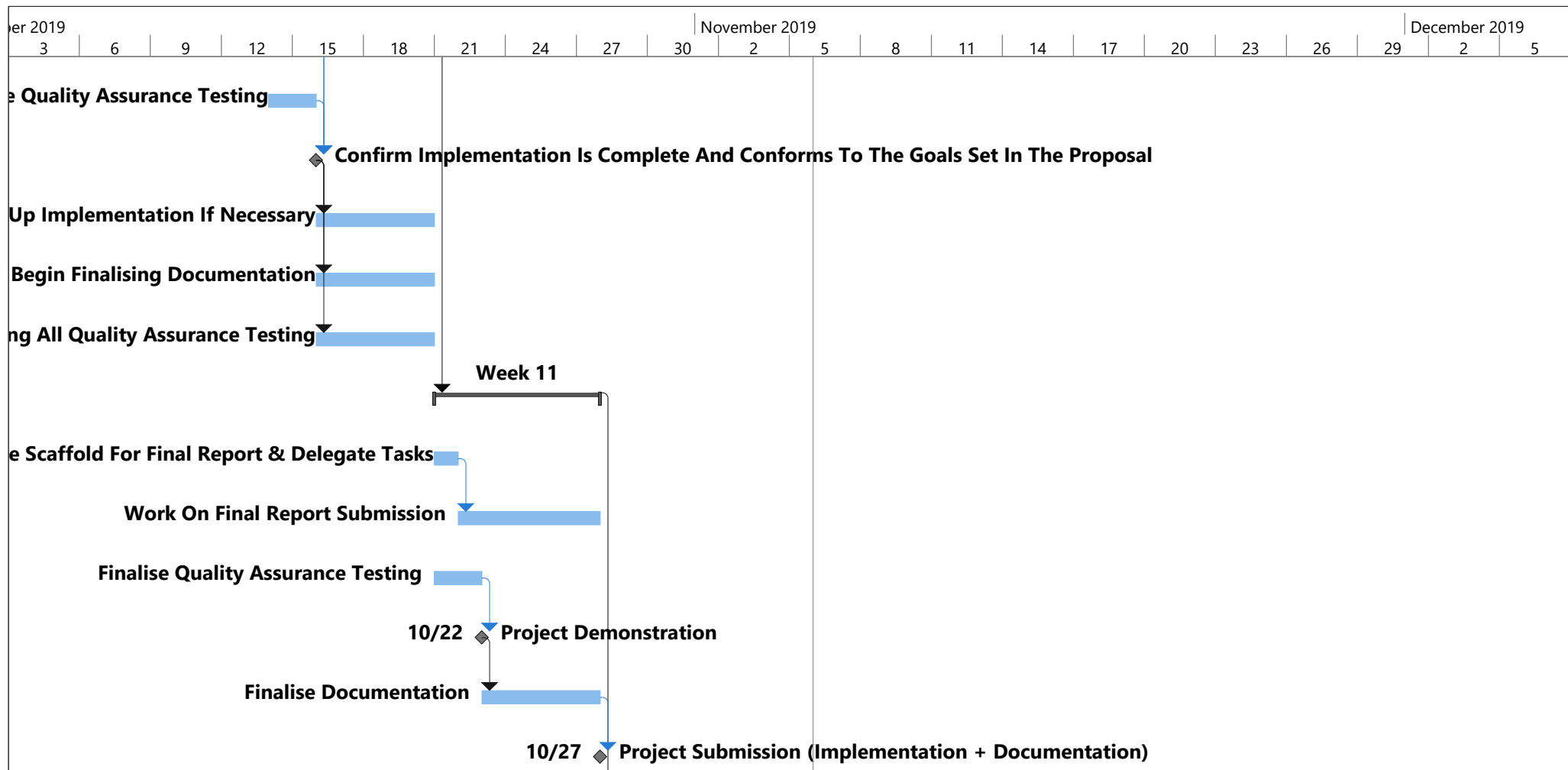
Mid Semester Break



Project: ELEC5619
Date: Sun 9/15/19

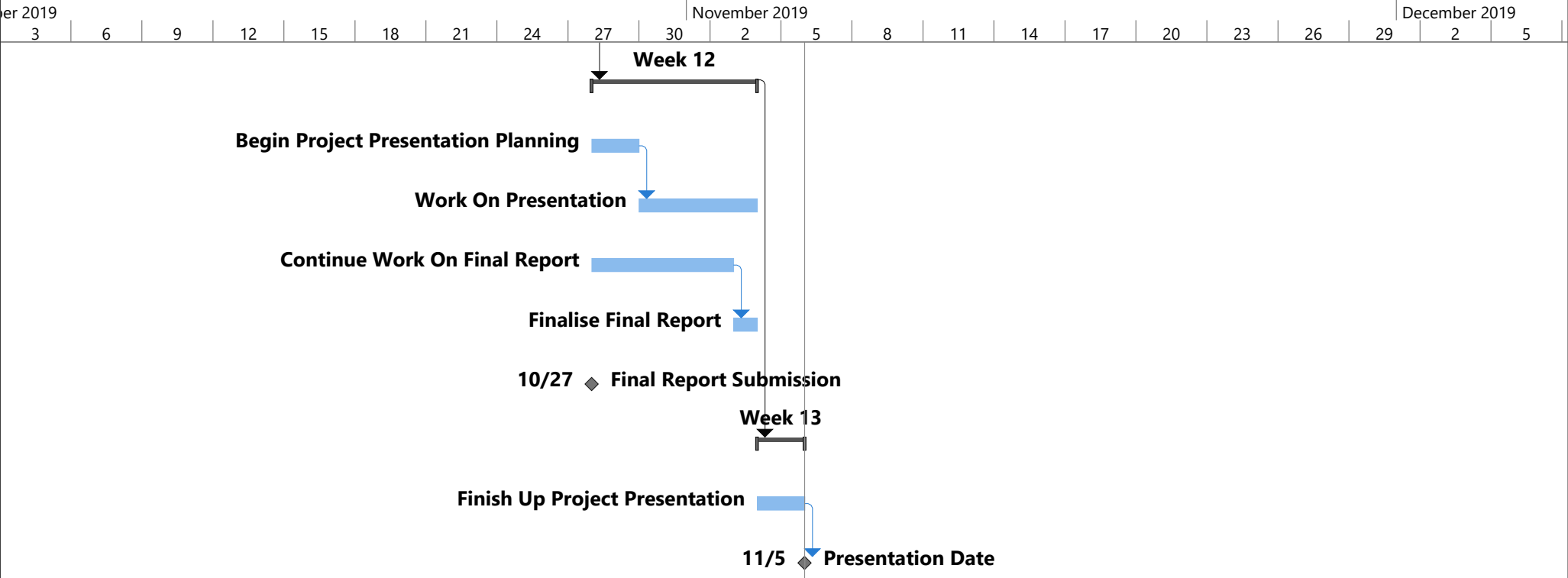
Task		Inactive Summary		External Tasks	
Split		Manual Task		External Milestone	
Milestone		Duration-only		Deadline	
Summary		Manual Summary Rollup		Progress	
Project Summary		Manual Summary		Manual Progress	
Inactive Task		Start-only			
Inactive Milestone		Finish-only			





Project: ELEC5619
Date: Sun 9/15/19

Task		Inactive Summary		External Tasks	
Split		Manual Task		External Milestone	
Milestone		Duration-only		Deadline	
Summary		Manual Summary Rollup		Progress	
Project Summary		Manual Summary		Manual Progress	
Inactive Task		Start-only			
Inactive Milestone		Finish-only			



Project: ELEC5619 Date: Sun 9/15/19	Task		Inactive Summary		External Tasks	
	Split		Manual Task		External Milestone	
	Milestone		Duration-only		Deadline	
	Summary		Manual Summary Rollup		Progress	
	Project Summary		Manual Summary		Manual Progress	
	Inactive Task		Start-only			
	Inactive Milestone		Finish-only			