# Assignment 1

Due: 12/08/2018

COSC2625 Building IT Systems 2018

Group: thankL

Project name: FuelIt

https://github.com/s3718266/thankL

Harman: Project description, Professionalism. Liam: How. Keyur: Project justification, Motivation. Natalie and Amy: When. Tomy: demonstrable outcomes.

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# 1. Group Members


**Harman Puri**
s3651291


**Background:** I was born in New Delhi, India and my parents migrated to Melbourne, Australia in 2001 when I was one. My family and I follow the Sikh religion as many of our past generations have done the same. English is my 4th language as my first three languages were Punjabi, Hindi and Urdu although I can speak over 10 languages and some in multiple dialects. Most of my time is spent training and instructing martial arts, working on cars or spending time with my friends and family. I am also a very passionate reader.
**Passion in IT:** The mechanics of I.T in terms of the engineering and design of hardware has always appealed to me especially if it can be used for the something bigger and the greater good. In the 21st century almost everything is technology based whether it be social media or something like online banking it is used in our everyday lives and most of us have become reliant on it. I enjoy taking computers apart and putting them back together as I find it enjoyable and a great challenge to put bits and pieces together to make something as a whole.
**What are you good at/interested in?** I have always been good at managing groups and people as well as more of the written and theory based work. I am also excellent at networking, presenting and speaking to third-party company's if needed. Whether it be needing a hand with some code or managing an issue within the group, I will always be able to carry out the situation professionally.
**What are your weaker points in the context of the project needs?** In terms of practical coding of online applications and turning a design into reality I find is quite the challenge as I don't have much experience making an online based interphase.
**What role do you expect to be performing in the project?** I would be expecting to manage and lead the whole team to make sure everything runs in sync as well a contacting other companies for the use of their data. I will also expect to have a hand in the theoretical design and overall presentation of the application.


**Liam Hector**
s3720431


**Background and Passion in IT:** I was originally born in Darwin but moved to Melbourne early in my life and consider this to be home. I've grown up with an interest in anything technology related, starting from just playing around with a computer, to now knowing how to build one and create software for it. Deciding to study information technology at a tertiary level was really a no brainer for me. Previously I study anything technology related at high school such as software development. By the end of my degree I hope to find work as a web developer and continue growing expanding my knowledge within the information technology industry.
**What are you good at /interest in?:** My first interest in the I.T industry is computer hardware how they work and interact with each other. However my main interest now lies in creating and developing websites. A strength of mine I would say is that I'm always wanting to expand my knowledge and learn something new, and this has helped keep my interest going.
**What are your weaker points in context of the project needs:** A weakness of mine within this project is I'm not a huge fan of writing up reports and such. I prefer the more 'technical' side of creating the actual project. I feel like I have enough knowledge to create the project, but not quite everything. I know that as a team we will need to do some research in order for this project to be 100% completed.

**What role do you expect to be performing in the project:** The role I believe to be taking on in this project is a developer. I feel like I can help a lot with completing the development of the project, and I prefer working on more of the coding rather than the design aspect.

## Keyur Naidoo
S3659108

**Background**: I was originally born and raised in South Africa despite moving around quite a bit to different countries and finally Australia in 2014. My family and I follow the Hindu religion and have done so for any generations. English is my first language although I am able to partially speak a few others as well. I spend most of my time online browsing the web or playing video-games and occasionally play Table-Tennis or sketch in notebooks.
**Passion in IT**: My interest in IT falls more toward the software side rather than the hardware. Technology as a whole has always been my greatest time-consumer whether it be tinkering with different animation and analytical programs or simply indulging in video-games.
I enjoy programming as it enables me to create close to anything I can dream up. This sort of freedom is what I, as a future employee, really hold in high regard. I also find the problem-solving aspect to be quite challenging and therefore engaging.
**What are you good at/interested in**: I am quite decent at and have a keen interest in art/design in all forms. From user interface design to architecture to simple sketching, I am quite capable in this field.
**What are your weaker points**: With regard to the project's needs, I feel that I am lacking in experience with developing online services and the translation of real-time information into an application.
**What role do you expect to be performing**: I would expect to fill a more design-oriented role during the development of the project but could also fill in on any written components such as pitches/presentations

## Amy Thompson
s3718266

**Background and Passion in IT:** I am Australian but love to travel and one of my favourite things to do is to go snowboarding. Since a young age I've wanted to study in the STEM fields. Throughout my secondary education, my passion for science and the prospect of learning the foundations of the future have inspired me to take my education further. I am currently studying a bachelor of Information Technology and have previously studied Computing: Informatics, in year 12. I would also say I have a keen interest in design and creating applications, websites and artworks. In the future I would like to work with both the skills of logic and creativity.
**What are you good at/interested in?:** I would say my strong points are in creativity, and can currently work with paint.net and photoshop. I also have a few years of experience with HTML and CSS and have created a number of websites.
**What are your weaker points in the context of the project needs:** I do admit I don't have a lot of experience in creating applications but I am willing to learn what it takes. My main worry is to be able to create a fully functioning database, I have created a local one on my laptop before but I would need to learn more to be able to create one online.
**What role do you expect to be performing in the project:** I take a lot of pride in the look of projects I have created and would say that I will most likely be creating the wireframes and

mockups for our final product. Having made a few website I would like to help in the creation of ours, even if it is not a primary use for our product.

**Loc Tomy Nghiem**
s3718692

**Background and Passion in IT:** I was born in Germany but grew up in Vietnam and then my family moved to Australia in 2014. I can speak English and Vietnamese. My favourite hobbies are playing video games like League of Legends and games on different consoles, reading mangas, watching Esports and I am also interested in sneakers and streetstyle culture. I'm interested in a lot of aspects of IT, like UI/UX design, game design or app developing. My interest in IT began when I was 15, after I started my first ICT class in High School.
**What are you good at/interested in?:** I think I am good at designing user interface and giving feedbacks or ideas that can help the project to become better and better through time. I can also assist anyone with their work if they are struggling for ideas.
**What are your weaker points in the context of the project needs:** I don't have enough skills in writing code and programming to fully develop a functional app, but I will keep learning and find a way to make it work.
**What role do you expect to be performing in the project:** I am expecting to bring ideas on the main feature of our fuel app, as well as the extended feature, demonstrate those functions and provide feedback/evidence test of all the features.

**Natalie Muhar**,
s3602994

**Background and Passion in IT:** I was born in Australia with Croatian heritage, but I speak minimal Croatian. I don't have much background in IT, however my mother, sister and brother-in-law are all in the field so they peaked my interest. So far I feel I am more interested in the hardware side of IT, however programming has also become more interesting as I have begun to understand more concepts in languages such as Java.
**What are you good at/interested in?:** I believe I excel at writing reports and keeping to a timeline, so hopefully I will be able to assist the group in staying organised and making sure everyone is up to date and isn't struggling with anything.
**What are your weaker points in the context of the project needs:** I have some knowledge of programming, but not enough to be able to develop the app, so I won't be of much help in that aspect, but I will still try to learn as I go.
**What role do you expect to be performing in the project:** I expect to be helping as much with report writing as I can, as well as ensuring I can assist with developing and finding out important information such as fuel data.

## 2. Project Description

FuelIt will be a website that compares all fuel prices from your chosen location to find the cheapest rate from most major fuel companies such as Shell, BP and 7 Eleven. This will allow drivers across New South Wales to save money by detecting prices around their area according to fuel types. Users will be selecting their fuel type then our website will analyse fuel price data through the API plug in finding the best possible fuel price from multiple fuel stations.

FuelIt will be able to generate and pull fuel prices from the API plug in and display it on a map through using a Google Maps plug in. It will also contain a search function in which the user can select what company and fuel type the drivers want. Location filtering will also be one of the major functions involved, drivers will be able to filter the distance from a current or certain location and results will be generated accordingly. Once the destination is selected, distance from the user to their chosen location will also appear. To further extend this website, an application for iOS may be created, to enable more mobility for users who may not always have access to a computer when they are in desperate need for fuel. For more money conscious users, a fuel trend graph may be implemented to allow these individuals to track the patterns in fuel pricing and fill up when they believe it is the most cost-effective period, thus being an extended feature.

## 3. Motivation

- Being tertiary education students, some of us drive our own cars wherever we need to and are painfully aware of the ever increasing fuel prices in Australia. Therefore, we collectively looked toward a solution that would at the very least compare the prices of fuel from different stations in a certain area in order to find the cheapest provider.

- Although there may already be answers to the aforementioned motive, we as a group find them to be quite inadequate. Either in performance, reliability, accuracy or practicality, the solutions that exist to this dilemma underperform thus discouraging their use. They suffer from poor-designed interfaces, confusing features or data that only updates once every month. Our motivation is to create a fully functional yet practical product to compete in this market.

- Another prominent motivation for undertaking this web development project is the fact that all members in our group have a fair amount of knowledge on the subject. Because Web Programming is a course that all of our members have either completed or are in the process of completing, knowing how to create web pages and host them on servers etc. is not too foreign a topic for us. This allows us to skip any online learning that may have been needed for other projects and go straight into the development phase of the project cycle. This, in-turn, allows us to meet deadlines much easier.

- Finally, in terms of a project that brings data analytics to the general public, there is a great deal of room to expand on various aspects. Such as adding trend graphs to show the expected rise or fall of fuel prices and prompt users to refuel accordingly. Or by converting the website into a mobile application that may be accessed from any mobile device so that fuel price data may be available to the users in a more convenient matter while on-the-go rather than having to load the website up on a web browser which is more time-consuming.

# 4. Demonstrable Outcomes

## Minimum Viable Features

**1. Fuel Prices:**

- *Description of Feature***:** Displaying fuel prices and fuel brand of various gas station on the map.
- *Description of validation test*: Checking if the system API is communicating with the database and showing all the fuel prices on the site.
- *Condition of pass or fail*:
    - Pass: when the map displays all fuel prices and fuel brand in each station.
    - Fail: when the map only show location and fuel station without prices and brands.

**2. Map:**

- *Description of Feature*: Basically a Google Maps plug-in to match with all locations of fuel station in the state.
- *Description of validation test*: Open Google Maps on another device to double-check if everything on the system's map is matched with Google Maps.
- *Condition of pass or fail*:
    - Pass: when all the fuel station and locations are matched with the map.
    - Fail: when the map doesn't show anything.

**3. Search Bar:**

- *Description of Feature*: A function that users can enter letters to search for fuel prices, brands, stations, suburbs,.....
- *Description of validation test*: Check if user can type all the letters into the bar and searching some simple keyword like price, station and see if the search navigation will pull out the result from the system's database.
- *Condition of pass or fail*:
    - Pass: when all letters in the alphabet can be put into the bar and when the system display the result relevant to the search input.
    - Fail: when some letters can't be put into the bar and when the search bar doesn't bring back the relevant result.

**4. Location (Filtering)**:

- *Description of Feature*: A function that will need access to users GPS in order to locate the user on the map and display to the nearest, most efficient station based on the filter that the user has entered.
- *Description of validation test*: Make sure user will be asked to allow access to user's location and GPS so this function can run perfectly and cross check if the system is leading user to the best option.
- *Condition of pass or fail*:
    - Pass: when the system have access to the user's location and locate the user on the map.
    - Fail: when the system doesn't have access to the user's location and locate the user on the map.

**5. Distance:**

- *Description of Feature*: A function which navigate the user to the station they pick or was picked by the system and show the distance between the two location on the map and the estimated time to get to the destination.

- *Description of validation test*: Compare the route that the system guide the user and the distance displayed on the map along with the estimated time to other mapping system like Maps on iOS or Google Maps to see if the site's map is showing the best option.
- *Condition of pass or fail*:
    - Pass: when the route, the distance and the estimated time on the site's map is matched with everything on other systems.
    - Fail: when the route, the distance and the estimated time on the site's map is not matched with everything on other systems.
    -

## Extended Features

**1. Create a mobile application:**

- *Description of Feature*: An app will increase the mobility of the program and allow users access to these features even when not using a computer, especially with the technology available today, mobile applications are more important to tech-savvy users.
- *Description of validation test*: An app created that has some important functions present and working.
- *Condition of pass or fail*:
    - Pass: Some functionalities of the website have been transferred over to an IoS application, such as fuel pricing and map.
    - Fail: No attempt at application made.

**4. Fuel Price Trend:**

- *Description of Feature*: A graph displaying current trends of fuel prices, depending on type, using previous data gathered. Based on this information and graph, advice and tips on the best time to buy fuel should be delivered.
- *Description of validation test*: Graphs on each fuel trend, and advice given below these graphs should be implemented in a section of the website.
- *Condition of pass or fail*:
    - Pass: Graphs are working and regularly updated according to data supplied, and some advice is given in regards to this.
    - Fail: No attempt at graphs or advice made.

**3. Save Tracker:**

- *Description of Feature*: This function display how much money you have save by comparing the fuel price you have been used to the average price of the fuel price trend.
- *Description of validation test*: A simple calculator should be added on the side of the website, allowing user to enter the amount of fuel they have been using with that fuel price.
- *Condition of pass or fail*:
    - Pass: The calculator appeared on the site and on the app, when the calculation is right.
    - Fail: The calculator does not showed up and the calculation is wrong.

# 5. Project Justification

## Justified Workload

Collectively we expect to put around 240 hours into this project. This calculates to being 5 hours of work per week for 8 weeks, per person. Considering the scope of the chosen project, we feel that this is definitely enough time to complete all of the minimum-viable features outlined above and maybe even some of the extended features as well, so long as they aren't beyond our current capabilities.

However, according to the project schedule we have laid out, the actual time to be used completing the main tasks accrues to around 230 hours. This is partly due to our basic prior knowledge on the topic of web development thus requiring little to no outside learning.

The main tasks are made up of the project reports, creating wireframes and the actual development of the website which has been split up according to the MVFs and EFs for better organisation. There is also time allotted to preparation for a pitch of our project.

- All in all the reports are each assigned 30 hours each as all members are expected to be actively involved in the completion of them. Therefore, it is actually 5 hours per person to complete the reports.
- Creating the wireframes for the entire website is quite a time-consuming task which is why it has been allotted 20 hours for completion.
- The MVFs were granted varied amounts of time for completion depending on their expected difficulty. For example, implementing the search bar function is not considered to be a very difficult so it has been allotted 10 hours to complete whereas overlaying the prices on the map is seen as the most daunting task which is why it has been allotted 15 hours and 2 weeks to complete.
- Finalising the website, which involves editing the designs of the web pages and making sure it is hosted on a server, has been allotted 20 hours as it may be difficult to bring the desired wireframes to life.
- 10 hours have been allotted to preparation for the project pitch as it is a very necessary aspect in order to get our project launched.
- And in the end 20 hours have been laid out in order to complete some of the EFs we were able to attempt during the development phase.

## Beyond Current Capabilities

### Expected capabilities

As this is most of our members' first IT-related tertiary education course, our collective ability and experience in web development and project management is quite limited but quickly growing. For the most part, we have the ability to create basic web pages and host them on servers as well as edit the designs of said web pages.

Also, due to our collective knowledge and experience gained throughout secondary schooling, our group is expected to possess fairly competent writing skills, enabling us to prepare cohesive and well-structured reports that accurately illustrate our reasoning behind our choice in project including our plans for it.

### Beyond expected capabilities

Our lack of experience in the IT industry may cause our group to miss some of the critical elements required to bring such a project to fruition, such as different technologies or software that may be required for the development phase to run smoothly. For example, the

data from Victoria required to be implemented using an API may be unavailable to us therefore leaving a website that relates to VIC beyond our reach. Although other states' fuel price APIs may be open sourced and therefore available to us.

However, since all of our members have little to no experience with app development, creating a functional mobile application from our website, within the deadline, may be beyond our capabilities as we are too unfamiliar with the steps and processes involved. At the very least, we would have to figure out how to publish applications via online learning within the allotted time which in an unrealistic expectation.

# 6. Risks

## Project Risks

**Lack of data**
Example: If we are denied access to fuel price analytics from our source website or any crowd-sourced data is unavailable.
Mitigation: Make use of open source data sets from other states such as NSW or rely on test data to create a functional prototype.

**Lack of developmental experience**
Example: If all group members have little to no prior experience with web development.
Mitigation: Seek aid from third-party development/coding specialists or acquire said skills from online learning.

**Lack of resources/tools needed to develop the website**
Example: If servers, computers, data or any other software/hardware needed are not directly available to us.
Mitigation: If possible, we could make use of RMITs facilities (ie. Computer labs and Core-teaching servers) to fully develop a functional prototype of the website.

## Team-dynamic Risks

**Communication issues**
Example: If members of the group rarely communicate with each other, either online or face-to-face, hardly any work can be done.
Mitigation: All members shall be kept in contact via Facebook Messenger at all times in case of any updates. Weekly in-person meetings can be scheduled to maximise the amount of progress made each week on the project. Any coding milestones achieved could be uploaded to GitHub as a way of backing up development progress. Any written additions to the report can be updated using a Trello Board.

**Unexpected illness**
Example: If anyone falls ill during the course of the project and are rendered unable to work, there will be a great delay in progress.
Mitigation: Again, good communication is key as it allows any incapacitated members to still contribute from anywhere via Skype, Discord, Messenger or any other interactive medium so that their individual progress is not lost to the group.

**Time constraints vs. Team effort**
Example: If members of the group are unable to pull their allocated weight, the project's minimum viable features may not be completed in the allotted time. If unorganised, the due date for the project may creep up on our members leaving us without enough time to complete the MVFs.
Mitigation: In order to monitor this possibility, each member shall post a weekly update on their progress via discussion boards on RMIT's Canvas system. Also, to minimise the risk of running out of time due to disorganisation, a project plan may be created before the project commences in order to outline the weekly goals and milestones to be completed thus organising the steps needed to accomplish our end-goal into viable sets of work to be done each week.

# 7. How

## Resources & Tools

**Atom Editor - https://atom.io**
This application will allow us to program the html code for our website. We have chosen this editor as it's easy to use and has a nice format to easily read the code. It also contains a function that will allow us to push and pull from our GitHub, which will keep a history of who has completed functions and worked on code. A like top this application can be found at https://atom.io and the current version as of writing this is 1.29.0.
We can use other text editing applications such as notepad found pre-installed on windows however by using atom editor this allows for a more streamlined workflow.

**Fuel API (NSW Government) - https://api.nsw.gov.au/fuel-price-check/apis**
We have decided to use the fuel API form New South Wales government. This is due to it being publicly available to use. This API enables us to gather the information required to display fuel prices in real time (updated every 15 minutes), this will hopefully allow us to have accurate fuel prices. We have decided to go for New South Wales fuel prices as currently there is no Victorian public API to display fuel prices. This API is free to use and can be found at https://api.nsw.gov.au/fuel-price-check/apis .
We had planned on using an API that would display fuel prices Australia wide, however we did not get a reply to our request. The link to this can be found at:
https://www.informedsources.com/industry/petroleum-fuels.aspx#PriceManagement/

**RMIT Core Teaching Servers - https://titan.csit.rmit.edu.au**
To host our website, we will be using RMIT's core teaching servers. This will allow us a central place to store completed files for other to access, and it is free for us to use. It will also allow everyone in our group to have access and edit files as needed. RMIT core teaching website can be found at https://titan.csit.rmit.edu.au. We could use another web hosting service such as Amazon Web Servers (AWS) however this would cost us money and would be dependent on an outside organisation. AWS can be found at https://aws.amazon.com/

**XCode - https://developer.apple.com/xcode/**
This application is the workspace that allows iOS applications to be developed. If we make it to our extended features, this is the program we will need to use. XCode is the only was Apple allows iOS applications to be developed, so we do not have much of a choice when it comes to how we will create out app. XCode is a free program to Mac users and can be found on the Mac App Store or at https://developer.apple.com/xcode/.The current version as at writing is 9.4.1 .

## Collaborative Workspaces

**Canvas -** https://rmit.instructure.com/groups/72190
We plan on using Canvas as a way to raise issue that we may be facing that is specific to our group and would like our tutor and or lecturer to help with. We also plan on using canvas' discussion space as a place where we can list weekly progress that we have completed and relevant links to Trello and the google doc. Canvas will be used alongside Trello to track Weekly progress. For members of our group to access canvas they simply need to click on groups on canvas' global navigation and click on our name, thankL.

**GitHub - https://github.com/s3718266/thankL**
GitHub will be used to store our groups code for our project. It will allow us to track changes that have been made as well as who has made these changes. This will create an 'audit trail' to highlight what progress has been made. GitHub will allow us to take advantage of its version control and track different versions and build upon one 'master branch'. This will allow multiple people to work on the progress at once. GitHub will also be used to update and keep track of changes made to the google doc, which will be exported as a pdf, at the end of each tutorial.

**Google Docs -**
**https://docs.google.com/document/d/1zCvvNQrso2wOtq9vNVoPGSTmSUSnYU7aGwP_eXXO76A/edit?ts=5b6114a6**
Google Docs is a web text editor that enables multiple users to collaboratively work on a single document at once. We are using google docs as it's a central place where we can all edit and pace information easily. We intend on having separate documents for each assignment and one where we can just place information that doesn't really have a home elsewhere. Our google doc will exported as a pdf at the end of each tutorial and uploaded on GitHub to keep track of progress.

## Communication Expectations

For communication within our group we will be using Facebook Messenger and canvas' discussion space.

**Facebook Messenger**
We are planning on using Facebook messenger for quick questions and responses. We can also use Facebook messenger for quickly organising when to get together outside of class time, and plan meetings. Team members will also be able to send a message of they need a question that has been posted elsewhere answered urgently.

**Canvas Discussion Space**
For Questions that involve more detail our groups canvas discussion space is to be used. This will allow a clean history of questions asked to be displayed in an organised and convenient way so that if other team members have the same question they can go back and have a look and find the answer in a timely manner. Canvas will also allow tutors to view any issue we may have and reply to them if they need too. Canvas is expected to be used at least weekly in order for people to post their progress, so it can be kept track of.
Team members are expected to communicate whenever there is an issue and raise their concerns to others. Facebook messenger should be checked and replied to when members are able too. Canvas should be checked at least daily to see if there are any concerns and members are expected to reply with a response if they know the answer.

If a meeting is planned, members are expected attend unless there is a decent reason why not such as illness. Meetings should be held at a time when everyone is available to attend. if members are unable to attend they should ask what was discussed and completed. All communications should be responded too, if a reply is needed. To ensure progress runs smoothly with our project, if a member continually doesn't show up to meetings or respond to communication, we will discuss this as a team and see if there's a valid reason and attempt to work something out, beyond this we will contact our tutor to discuss appropriate action.

### Decision-making Processes

Our decision-making process will be done through conversations at meetings and in class. We will bring up an idea that a team member has, and discuss the idea in detail, and how it may affect the project. Pros and cons will be discussed, and we will decide if the idea is worth implementing through a vote. If majority wins we will implement it, however if not we will still take note of the idea in case it can be used further on in the project.

Our resolution process will be quite simple, we will bring up the problem and discuss it as a team and try to work out the best way of solving it. If we do struggle to come up with a resolution we will contact our tutor for their opinion, and as a last resort we can book an appointment with our lecturer for their opinion and or solution.

## 8. Project Timetable

| Title | Planned Start | Planned Due | Lead by |
|---|---|---|---|
| Week 3 | | | |
| Email "Informed Sources" and ask for permission to use data | 1/8 | 5/8 | Liam Hector |
| Outline 5 basic features that we will implement into the website, outline some extended features [2hrs] | 1/8 | 5/8 | Keyur Naidoo |
| Divide up Assignment 1 workloads for each member | 1/8 | 1/8 | Harmin Puri |
| Week 4 | | | |
| Finalise Assignment 1 [30hrs]<br>• All members will be given a section to complete, whilst still relying on each other for additional support and information. | 1/8 | 12/8 | Loc Nghiem |
| Organise Trello Board<br>• We need to input all our tasks and schedules to allow each member to keep a checklist of | 8/8 | 12/8 | Amy Thompson |

| | | | |
|---|---|---|---|
| what they have finished, and ensure other members have been contributing, Amy will lead this and create the appropriate folders, others will assist where they can. | | | |
| Week 5 | | | |
| Create wireframes for a website [20hrs]<br>• Loc will begin creating the wireframes, with support from Natalie and Harmin.<br>• The wireframes should be fully completed by the end of week 5 | 13/8 | 19/8 | Loc Nghiem |
| Begin creating draft website<br>• A rough layout of the website should be designed so that each member can understand the direction the website will take, and have their input into the overall look and function.<br>• Liam will lead this as he has the most experience in programming, along with Keyur and Amy. | 13/8 | 19/8 | Liam Hector |
| Week 6 | | | |
| Begin fuel prices implementation (MVF 1) [15hrs]<br>• Using free NSW API<br>• Keyur and Liam will begin implementing the fuel price data, with the support of everyone in the group. | 20/8 | 26/8 | Keyur Naidoo |
| Begin map implementation (MVF 2)<br>• Amy and Loc will begin working on implementing the map | 20/8 | 26/8 | Amy Thompson |
| Week 7 | | | |
| Overlay fuel prices onto map [15hrs]<br>• This task may be the most challenging aspect of the website, therefore we allowed 2 weeks for this element.<br>• Everyone's knowledge will need to be employed to complete this task, therefore each member will contribute to this task. | 20/8 | 2/9 | Harman Puri |
| Begin MVF 3, implementing a working search bar [10hrs]<br>• This function will need to allow users to search for their desired fuel type etc, this should be fairly simple to do, therefore we will schedule a week to do so.<br>• Loc will continue on MVF 3, with the support of each group member. | 27/8 | 2/9 | Loc Nghiem |

| | | | |
|---|---|---|---|
| Begin Assignment 2 Report<br>• Natalie will begin writing assignment 2 this week, reporting on the design and the current progress of the website. | 3/9 | 16/19 | Natalie Muhar |
| Week 8 | | | |
| Finalise Assignment 2 Report [30hrs]<br>• Natalie will finish assignment 2, including week 8's progress in the final submission, Amy and Harmin will contribute to the final report and ensure Natalie has included all relevant information. | 3/9 | 16/9 | Natalie Muhar |
| Begin implementing filtering for location services (MVF 4) [15hrs]<br>• This may be slightly trickier than MVF 3, therefore 15 hours will be allocated for this function.<br>• Keyur will lead this along with Liam, with the support of the other team members. | 10/9 | 16/9 | Keyur Naidoo |
| Week 9 | | | |
| Implement MVF 5, distance tracker/calculations [15hrs]<br>• For this week, implementing the final MVF will be the only task for us, this will also allow us to recheck the other MVFs and ensure they are working correctly.<br>• All members will be contributing to the final MVF, ensuring everyone understands the coding behind the website. | 17/9 | 23/9 | Liam Hector |
| Week 10 | | | |
| Finalise website [20hrs]<br>• Planning to finish by week 10 will allow for a buffer, in case some MVFs turn out to be more difficult to implement taking up more time<br>• This will also leave a bit of room to begin creating our extended features, if all goes to plan.<br>• Amy will lead this, as her organisation skills will ensure we stay on track to keep to the target date to finish the website. | 24/9 | 30/9 | Amy Thompson |
| Begin Assignment 3 Report<br>• As we aim to have finished our MVFs, beginning the report now will be important, and we will be able to extend on the report in further weeks if we begin on the EFs. | 24/9 | 14/10 | Natalie Muhar |

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| • Natalie will begin writing the final assignment, reporting on the final outcome of the MVFs and whether the team stayed on track each week to meet their goals. | | | |
| Week 11 | | | |
| Begin working on extended features<br>• If we can stick to our schedule and have the website finished by week 10, we will begin on our extended features, firstly a mobile application for IoS.<br>• Liam will lead this due to his knowledge of creating mobile applications. | 1/10 | 12/10 | Liam Hector |
| Week 12 | | | |
| Finalise extended features that have been attempted [20hrs]<br>• At least a mock-up or plan for an app should be created within this week, to give a basic outline of what the page would look like.<br>• We will aim to have these finished 2 days before the report is due, in order to adjust the final report to include our work on this.<br>• Loc will lead the home run for the project, and ensure as many extended features are implemented as possible and to the highest standard. Liam, Keyur and Amy will be contributing here. | 1/10 | 12/10 | Loc Nghiem |
| Finalise Assignment 3 Report [30hrs]<br>• Natalie will finalise the report, ensuring each member input is included and they are happy with the final result of the project and report on their efforts. | 24/9 | 14/10 | Natalie Muhar |
| Prepare speeches for presentation in week 14 [10hrs]<br>• The team will divide up the project based on what they would like to present, and begin writing their speeches, Harmin will ensure she and her members are on track, and fully understand the scope of the final project. | 8/10 | 10/10 | Harmin Puri |