

# PID document

--Driver Accountancy APP

# TAX-I

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# 1. Project Goals

This project will teach all of the group how to work properly as a team with people we have never met before. This will help later with life projects.

This project will aim to develop a prototype website and application that will encourage drivers to input daily their expenditure and income, store data in the cloud, calculate their tax, and submit returns in a digital form to HMRC. This will help reduce the cost for drivers due to late returns or not knowing how much tax needs to be paid. There will also be a page where the drivers can see the summary of that month and can look back to other months and see previous data. All entries can be edited. All this will connect to an online database. The application will allow to fill in tax return form and send it to HMRC.

## 2. Scope

Each time Mobile Application (in this document called “App”) is mentioned in this document it is referred as optional. There are no guarantees this would be delivered. Once the main website is completed on satisfactory level approved by the Client, the workload may be transferred to Mobile Application.

Main application on a website is always referred as website, web page or application.

### 2.1 MoSCoW

In order to properly build the system our team needs the requirements document. It is important to state what features, functionality, etc is needed. They ought to be split for functional requirements (these would be all the features, the look, the content, etc.) and non-functional requirements (security, speed, usability, etc). It is simply the list of things to do grouped by the importance.

Please state all the requirements for the application in the following way:

- **M is Must Have:** This would be something that is absolutely crucial for the system.
- **S is Should Have:** Something that is quite important, but if it wouldn't be implemented the system would still function properly
- **C is Could Have:** Something that would be nice to have, but is optional and can be omitted.
- **W is Wouldn't Have:** Something that is not possible to be delivered at the present or the way it was requested

- **NF is Non-Functional Requirements:** Is about operation of the system. Not the features, but what must be included to make it secure, fast, reliable, etc

#### **Must Haves:**

- Using OAuth to provide quick, easy and safe registration and login
- Users must register an account through OAuth in order to use application
- Database for users' data within application. No local storage. User must be connected to the internet to synchronize the data.
- Review page with the summary and status of all entries in the application
- Calendar with all entries from the past
- All entries editable
- Integration with Excel spreadsheet on the server for calculating tax returns (supplied by the client)
- Expenditure page will be the landing page with 2 buttons for Income and Expenses
- Website must be responsive to be easily accessible on mobile devices

#### **Should Haves:**

- Use Google Analytics to track where users drop out, where they spend most of the time and if the flow of action is easy
- Tax return submission twice a year sent to HMRC. Possible change to 4 times a year after new law takes place
- Page "About the Application" that would contain short description and the purpose of using the application
- Links to relevant pages on HMRC website
- Page "About Us" with the company contact details
- Using SingalR or similar framework for instant saving
- Spell Checker for entries and editable areas
- Daily reminders for expenditure input

#### **Could Haves:**

- Website and App to be used internationally and be multilingual
- Website and App for other professions as well. Not just Taxi drivers
- Whole project and related products to be scalable. Meaning using names and descriptions to be generic and leave possible spots for attaching other services, etc.
- Users' actions and flow of control tracking for Mobile App (Similar to Google Analytics)
- UTR: Unique Tax Reference automatically obtainable from HMRC
- Referral Scheme. Sent by invitation from current members
- Copyright information at the bottom of the page
- Terms and Conditions prepared by the Lawyer
- Most of sections to have "?" icon with the description of the feature
- Information about this Group project as a foundation for future work
- Reminders for tax submission at least 2-3 weeks before due date
- All reminders and notifications to be customized
- In case of not being able to digitally create tax submission to HMRC, application would create a specific format file accepted by HMRC for the users to send it themselves
- Possible export option for files created with application
- Possible email integration or contact form to HMRC
- Our team will try the attempt to connect PayPal integration to the system

- Use wrapper technology to display website as an application. Possible use of React Native, Ionic, etc to use website code to create native app.
- Introduction tutorials for users
- Introduction tutorials sent to an email

#### **Wouldn't Haves:**

- Our team is unable to create tax return calculator in Excel spreadsheet in case if Client cannot provide it
- Our team is unable to provide credit card details/payments integration
- Our team cannot provide Referral Scheme connected with financial loyalty rewards

#### **Non-Functional Requirements**

- (M) To use IML methodology: invent, measure, learn
- (M) Using repositories on GitLab for code sharing, collaboration and version control, however strictly private during development.
- (M) Create Digital Ocean server space to upload page once it is ready
- (M) Using local hosting option like Xampp or similar for offline development.
- (M) Very simple registration and login. OAuth provides this feature
- (M) Very quick loading times and synchronization
- (M) Tested and optimized for every major browser on the market
- (M) Tested responsiveness of website on mobile devices
- (S) Using Wordpress in order to utilize various plugins. This will speed up website's development and will allow easy use of some required software which do not have to be built from scratch
- (S) Simple and intuitive interface with the focus on expenditure page and tax submission
- (S) Easily accessible menu in form of a "Burger menu" in top left corner like in most common applications nowadays
- (S) Triple check for spelling error free content
- (C) This line of products to be signed as official partner to HMRC
- (C) global accounting website (app) for all kind of taxi drivers

## **3. Approach**

### **3.1 Team Management**

- PRINCE 2
- Microsoft Project
- Asana
- Slack

**PRINCE2** describes how to manage projects in a logical and organized way with clear steps. It is not a tool nor a skill, but a structured project management process. There are many benefits to using PRINCE2. PRINCE2 enables the entire project process to be

effectively controlled and organized to re-examine project plans and business conditions at the point of decision making and to automatically manage and control any deviations from the plan to control resources.

**Microsoft Project** can not only create a project plan quickly and accurately, but also help the project manager to control, analyze and predict the progress of the project, analyze and predict the project cost, greatly shorten the project duration, effectively utilize the resources and increase the economic benefits.

**Asana** offers four calendars: My Calendar, Project Calendar, Team Calendar and Total Calendar. The traditional project management needs to open a project to identify their own tasks, and employees using Asana simply open the "My Calendar" to view all the tasks related to their own; the same time, managers can view the "Project Calendar" And "team calendar" to master the person in charge of each task, the division of labor and the progress of the update.

**Slack** owns strong communication ability and convenient channels for separate topics. You can create a channel for different tasks with no interference noise and strong third-party integration. It can integrates various common third-party clients such as Dropbox, Google Drive, Trello, Github and more.

### 3.2 Platforms and Technology

- GitLab-code repository
- OAuth for registration and login
- connect a database
- implement secure login to the website / use suitable plugins
- use of html,javascript, jquery and bootstrap(front end development)
- AJAX
- Python

**Gitlab** is a good way to manage git repository with wiki, and issue tracking. It also provides unlimited amount private repository, for free that we will need. It will also let us to collaborate easily to continuously build and deploy the web app live. It also allows us to store history of codes of work done when committed by any of the permitted collaborators.

**OAuth** is an open standard for autorisation and easy for any developer to implement. It can provide client applications secure delegated access. It works over HTTP and authorises devices, APIs, Servers and Applications with access tokens rather than credentials. This will be used in the project to make it easier for the users to login and register with their already existing account from google, facebook etc...

We will use **XAMPP** server to create a **MYSQL database**. This server is an open source web server developed by Apache Friends, that consists of Apache HTTP, MariaDB database, and it interprets scripts written in **PHP** programming language. Once installed we can then connect through localhost to go to the **PHPMyAdmin** page that shows all the database information.

We will use this to store any information such as account details of the users that need to be stored. We will create functions of the website that will allow the user to submit edit, delete details that they will provide on the form and this will populate or update the database.

We will implement a secure login function to the website by OAuth connection to major secure services like Google. Thanks to that solution all the security will be handled by major company with great experience in the field. We will not require users to have our local account, but as them to use one of their existing accounts. Ideally, it is good to have an SSL certificate on the website. When this is installed in the server it will activate a padlock and https protocol and allows secure connection from a web server to the browser. Although typically ssl is used in credit card transactions it is recently more normal when securing browsing different sites such as; social media sites.

We will use HTML to display content on the website. CSS will allow us to manipulate the design of the website and used to make a website to look a certain desired design or just how the client wants it to look like. Moreover, it can also be used to move elements around to create a consistent layout. It is also used to make the website responsive. The project website needs to be fully responsive so we will use CSS to make it possible and fully responsive in all platforms. Additionally, Javascript is used to add dynamic behavior, store information and handle requests and responses on the website. We will use to create interactive effects within the project website. JQuery, allows us to use Javascript much easier on the website (Javascript library). Basically it will simplify complicated things from Javascript.

**AJAX** communicates directly with the server, through Javascript XMLHttpRequest object. The webpage can make a request to and get a response from the server, without reloading the page or going to another page for faster results and minimal waiting time.

**Python** is an open source programming software. It is freely usable and distributable, even for commercial and beginner friendly and accessible for new programmers. It can also interact with most of the other languages and platforms. We will use Flask micro web framework as it is easy and simple to use on getting a simple app up and running.



### 3.3 Methods of implementation

Our chosen method of agile development is MoSCoW. We have chosen to use this method as it gives the group a clear development path to follow. Taking our time scale into account we have come up with a list of tasks and sorted them into four categories: Must have, Would have, Could have and Wouldn't have. This allows us to focus on the tasks that the group and the client have agreed are priority as the full scope of the project is very large. MoSCoW allows to plan next steps. It can help to decide what things can be included if time allows and what would be too difficult to create.

## 4. Project Organization

### 4.1 Team Roles

<b>Project Manger</b>	Jiele Tang
<b>Developers:</b>	
System Architect	Karol Pasierb
Designer	Kristelle Cervan; Ryan Hunter
Front End Developer	David Stoddart; Robert Rosksela; Ryan Hunter
Back End Developer	David Stoddart; Karol Pasierb; Robert Roksela; Ryan Hunter
Database Admin / Server	David Stoddart; Ryan Hunter
Research	Karol Pasierb; Jiele Tang
Testing	Karol Pasierb; Jiele Tang
Client Communication	Karol Pasierb; Jiele Tang

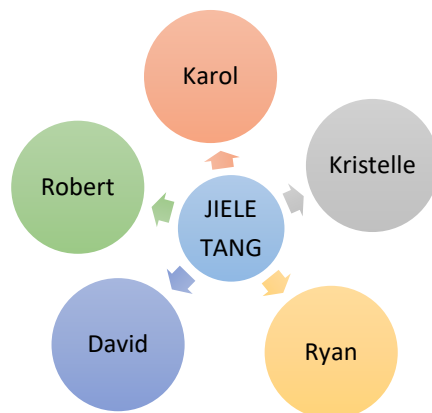
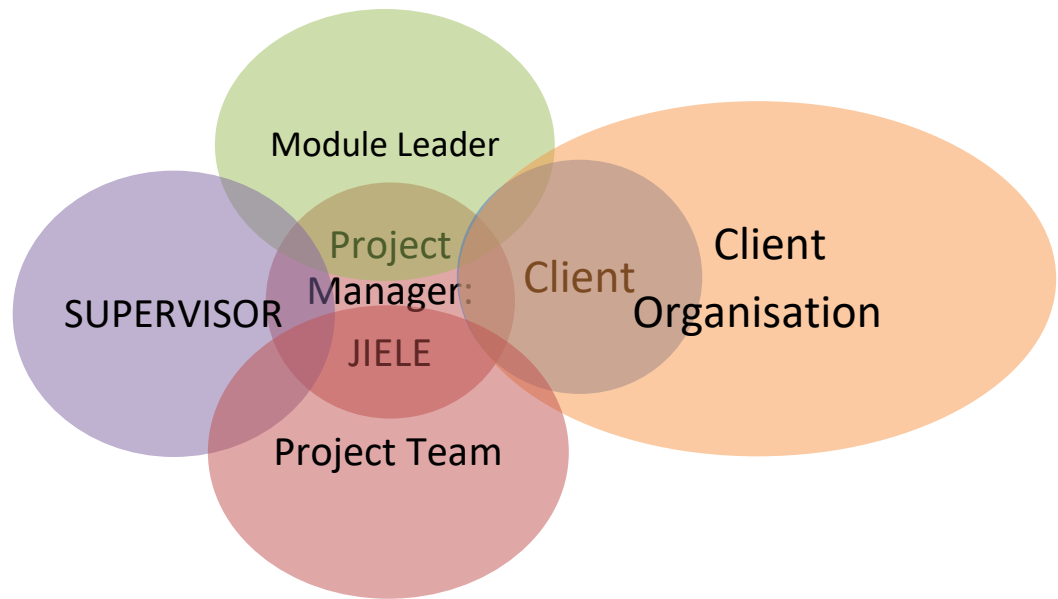


Figure 1 Team Roles. Made by project manager



*Figure 2 important roles in whole project. Made by project manager*

## 4.2 Team Responsibility

### 4.2.1 Project Manager

- Plan and monitor the whole project to completion
- Organise and motivate the project team
- Manage risk and make a contingency plan
- Keep contact between client and developers
- Evaluate alternatives and make informed decisions

### 4.2.2 Developers

- Ensure all development work is completed on time
- Always pull starting work
- Always commit any changes to Gitlab
- Use slack and asana to communicate
- Code must be readable and commented
- Keep everyone up to date

## **5. Business Case**

### **5.1 Benefit analysis**

#### **Company/Client**

The ability to assist taxi, private hire, coach or lorry drivers (professional drivers) meet their tax reporting and payment obligations. This will extend to the larger GIG economy in time.

#### **End Users/Drivers**

Will allow them to easily track their tax liabilities throughout the financial period. Remove the stress of making timely returns to HMRC thereby avoiding financial penalties. Replace the need to engage accountants to compile their tax returns. At the moment this return is an annual requirement but will soon become a quarterly requirement. To secure their expense receipts and retrieve for any future evidence as and when required.

The benefits to the business post project completion is a sustainable subscription model. It will also lead to retaining and increasing drivers in the driving market and increasing the Chancellors tax take

## **6. Constraints**

### **6.1 Project Limitations**

#### **•Scope**

The scope of the project is very wide as the client would like the team members to create a mobile application for different platforms. This would be next step after successful creation of responsive website The above development of the software involves integration of a database, transferring data to an Excel spreadsheet, secure login and sending data to the HMRC. Due to the wide range of the tasks required to fulfil the requirements, the team will concentrate at the most important elements to be delivered by the deadline.

## •Schedule

Due to the short period of time, which the project is restricted to, it might be difficult to deliver all the required elements described in the point 2.1. section: MUST. The project deadline is not negotiable. The team, however, will work hard to hand over the fully functional product which will satisfy the customer needs.

## •Cost

The customer does not allocate any financial resources for the development of the project. The developers are restricted to use free software and tools. However, this should be sufficient to successfully introduce the website.

## 6.2 Upper Variation of tolerance

The client is aware of the complexity of the software and knows about the time limitations for the deliverable, therefore his attitude towards the developed software is very flexible. The team is allowed to deliver a product that is within their time range.

## 6.3 Assumptions

The team's actions will be put to the test, which will be assessed by the client and the project supervisor. The task requires discipline and consistent work. Despite some limitations, thanks to hard work and determination, it should be possible to implement and introduce the product desirable by the client.

## 7. Stakeholders

- the company
- professional drivers
- project team

## 8. Risks

Risk Matrix Assessment for Project Driver Accountancy APP																	
Risk Identification								Risk Response Plan		Monitoring and Control							
#	RMP No.	Status	Risk Category	Risk Event	Cause	Effect	Risk Matrix					Response Strategy	Response Actions	Risk Owner	Interval or Milestone Check	Status: Date	
1		Active	External	Project no budget	Budget Constraints	Project delayed	Probability	VH	H	M	L	VL	Reduce	do technical delivery	Project Team	Monthly	15/01/2018
								VL	L	M	H	VH					
2		Active	Organization	Project not meeting requirement of the resource	Not enough resources	waste time	Probability	VH	H	M	L	VL	Reduce	Define roles and responsibilities with the current resources	Project Manager	Monthly	25/01/2018
								VL	L	M	H	VH					
3		Active	Project Management	Insufficient business case	Insufficient business case justification	Project delayed	Probability	VH	H	M	L	VL	Reduce	Purpose continued business justification	Project Manager	At completion of business case acceptance	02/02/2018
								VL	L	M	H	VH					
4		Active	Project Management	Lack of communication process	Excessive reliance on key staff	Low project quality	Probability	VH	H	M	L	VL	Reduce	Project manager to play a communication, encouraging role	Project Manager	Weekly	05/02/2018
								VL	L	M	H	VH					
5		Active	External	Lack of knowledge in other special field	Project aim at specific field	some parts of project are not perfect	Probability	VH	H	M	L	VL	Accept	achieve requirement from client and search materials	Technician Team	weekly	10/02/2018
								VL	L	M	H	VH					
6		Active	Project Management	Inaccurate time management	do not finish the project	Delayed project	Probability	VH	H	M	L	VL	Reduce	deliver works that have already been make and explain the reason. Then complete the project as fast as possible	system architect	weekly	01/03/2018
								VL	L	M	H	VH					
7		Active	External	Works suffer maliciously modified	Hackers or competitors	Project broken or stolen	Probability	VH	H	M	L	VL	Accept	Find technical stuff or seek police help	Technician Team	At the end	10/04/2018
								VL	L	M	H	VH					

## 9. Project Controls

### 9.1 Team Ground Rules

- Attend all team meetings where possible
- Meet every week to discuss next steps (rough time scale)
- Everyone in the team has equal say on important decisions
- All team members must be respected
- Group emails and messages should be checked regularly
- Keep project diary every weekly

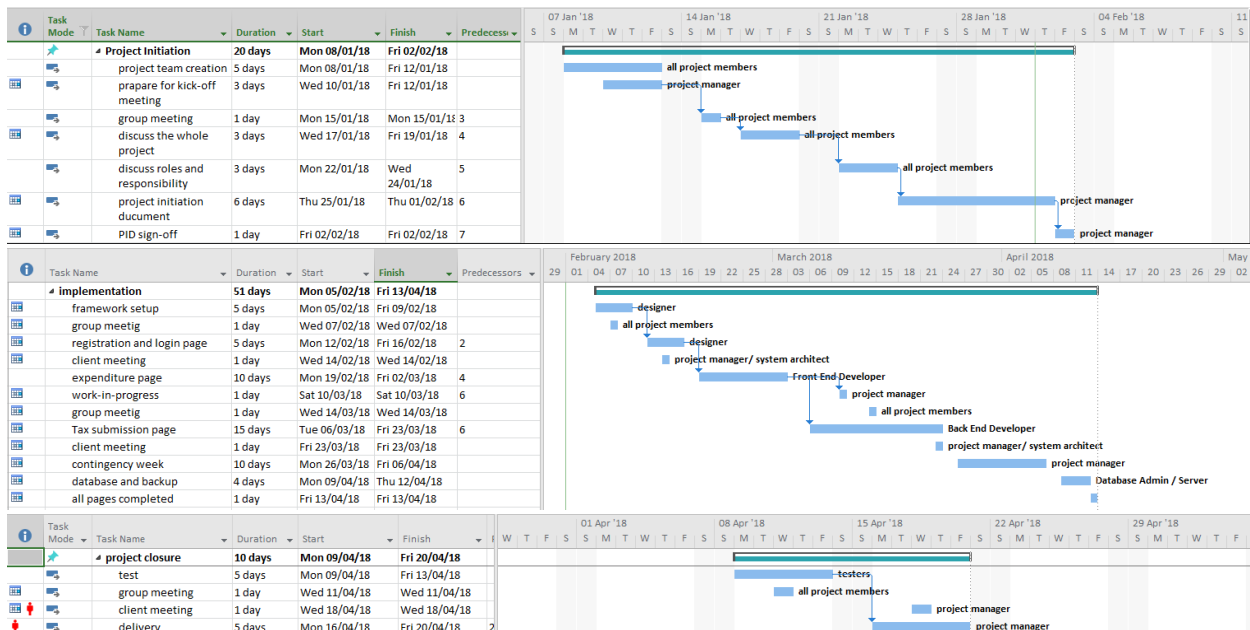
## 9.2 Team communication plan

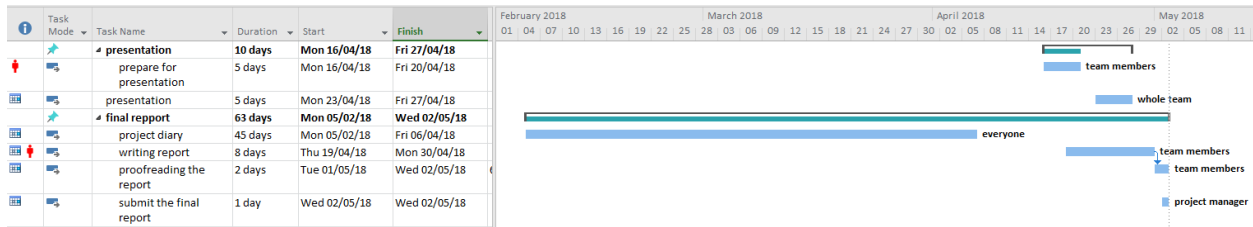
Our group meeting will be held on Monday or Wednesday 12:00—14:00. Everyone must be present. At this meeting, the project manager first announces some information, such as reminding deadline, the next meeting time, the client meeting time and provided information and advice from the supervisor, and the distribution of the weekly contribution table. Next, we discuss the process of the finished product, talk about the problems encountered and discuss how to solve them. Then make a MoSCoW for the next steps and assign it to everyone. If there is another need, we also use Asana to make an online video conference to discuss the problems we meet and if we finish work ahead of time we will discuss what we should do next

## 10. Reporting frameworks

The project manager communicates with the supervisor to discuss about our work progress and gets some advice to improve our work after every week PM forum. We also meet with client weekly to present the process we are doing now to ensure that we are always in the right direction for the project and take notes about the special requirements are expected to be added to the final delivery. Our team must submit five assignments. The first one is Project Initial Document must be handed on 02/02/2018. Presenting a work-in-process on 10/03/2018. The final product will delivery on 20/04/2018. There will be a presentation one day on 23/04/2018–23/04/2018. At last, the final report will hand in on 02/05/2018.

## 11. Schedule





## 12. PID Sign Off

Project Initiation Document for :

### Driver Accountancy APP

I agree with document.

Project manager signature:

*Tiebe Tans*

Client signature:

*[Handwritten signature]*

Date:

*02.02.2018*

## **13. Appendix**

### **• David Stoddart**

I have never actually been in a proper group project before but I am looking forward to finally being part of one and learning exactly how to do it properly. As this is my first time I am finding out about different programs to help with group projects like Slack and Asana. This is good as Asana itself is a time management application and can help me in more than just this group project but any other project to come.

During this project I intend use my existing skills in web development and mobile application that I have acquired through my course and personal time just having a playabout with code and seeing what I can create. In this project I intent to increase my knowledge of these fields and implement them in a real-world scenario instead of a university coursework. I also would like to increase my knowledge of the use of databases as currently all I have done is questions on a sheet but never a living database that will surprise me and I will have to adapt it to whatever hits it. I am also looking forward to properly incorporate a database into a website to input and output data as it is something I have never tried before.

### **• Karol Pasierb**

I am very good with Time Management and Organization. However I have never applied those techniques to a team project. This will be an interesting challenge to revise my knowledge in this field and learn how to adapt this to the team. As a part of this I have introduced Asana as main task manager and suggested Slack as main communication tool. I will be working hard to help the team to use those tools and our PM to better organize work with them.

I am very interested in learning how to use Slack for team communications as this is a very popular tool among developers.

I do not feel particularly great with any of the languages we will use and my main goal is to improve my skills in each of them. To feel more confident and more knowledgeable. The goal is simply to learn the whole process of building a website with the required specification. At the end of the project I would like to feel certain I am capable of creating similar projects myself.

I will put my focus on learning PHP or Python as a server side scripting language. I have some knowledge, but I feel reluctant towards those languages as I am kind of afraid of using them. I want to overcome that obstacle and feel safe and skilled within the scope of a basic use. Therefore I will be taking a role as a backend developer.

I am very keen on proper learning of git version control system. I want to be more proficient with it, then simple commits. I want to learn more about branching and git console



commands. I will spend some time on exploring this topic and share my knowledge with other team members.

I want to expand my knowledge of JetBrains PhpStorm as preferred IDE. I also want to conquer my inability to use built-in PHP debugger.

As we are working on website project I want to learn more about using Xampp and servers. In particular services like AWS.

I want to expand my knowledge about databases. Especially in connection with any scripting language. In our case this will be PHP. I want to be more proficient in utilizing databases in online applications and how this can generate UI depending on the content.

## • **Kristelle Cervan**

I am very interested and believe that my strongest skills are in design and front-end development of a website. This includes coding in HTML, CSS, a bit of JavaScript. Moreover, I have basic knowledge in Python, PHP scripting language, Database (PHP MyAdmin) and JSON.

My goal for this project is to showcase and improve my web design and development skills. Additionally, to design a simple and user-friendly responsive website that users can happily go back to and use the services provided within the website. I want to focus on designing the website for the appropriate audience and produce a wireframe for the website and a prototype to present to the client at the early stage of the project. In this project I will design a user-interface that allows the users to navigate easily and find what they need and quickly and efficiently.

I have a strong interest to develop the front-end side of the website project so I would be able to help in this area as well. I am also looking to help with back-end as I have very basic knowledge in it and I am looking to expand my knowledge in this, through the project. This includes using and learning new tools such as XAMPP environment, Gitlab, ASANA, that was proposed to use for assigning tasks for each member of the project.

Additionally, I want to improve and refresh my knowledge on WordPress, PHP, and Database that I have already used in the past, which will be applied in the project.

We are going to use Gitlab with WordPress, this is a good opportunity for me to learn new ways of integrating tools as I have only learned these things recently from my previous projects, with GitHub and python.

Lastly, I want to improve my teamwork skills and presentation skills, by working together our aim is to give what the client wants and give them what they need.

## • Jiele Tang

As a Business Information System student, I feel like it is a great opportunity for me to take the role as a project manager, this will enable me to develop and have the experience of applying project management techniques within a real project. I will continue to learn new management skills and combine my prior knowledge to effectively manage the team. I will learn from this real experience not only how to communicate with the team but also how to effectively communicate with the client. If our team encounter problems during the project, I can improve my ability to handle issues and co-operate efficiently as a team. I am aware working within the team will also allow me to build and develop on my leadership and listening skills as within a team there can always be various ideas and it's important that within the project I can find a compromise for a solution. As well as being able to manage a team I know it is important that all documentation is kept up to date and every stage is documented.

As this is my first time being able to work on a real life project, I hope I will be able to make a great contribution and also feel it will benefit me greatly. I may not be a technical person, however I can help to collect research materials and test software so that participate a lot in this Project.

Besides technology team spirit is also important, so I will learn how to motivate the team so that the team can work more united and efficiently within a team.

## • Robert Roksela

I trust that participation in this project and my active attitude will contribute significantly to the final task and will benefit all members of the team including myself. I have skills and work experience with many web-development languages, both front-end (HTML, CSS, JavaScript, JQuery) and back-end (PHP, Python). I have worked with web-creation tools, including WordPress and Dreamweaver, and have developed software applications using programming languages such as C# and Visual Basic. I am sure some of those abilities will be very useful during the project.

My goal for this project is to improve my technical skills in web development, which I am most interested in, especially my work with WordPress and the PHP programming language that we are going to use during the process of the implementation of the software. I want to develop my knowledge of database connection with WordPress, as well as improve my skills of exploiting useful plugins that can be used during the task progression.

It will be very interesting to explore the XAMPP environment as I have never used it before. I expect that this practice will profit my future projects related to my Web Design & Development course.

I will gain new knowledge of operating new software, such as: Asana – the project managing tool and Slack – the group communication tool. I hope this experience will benefit my professional career in the future, and allow me to manage my time effectively.

I am a person who seeks new challenges that will enable me to capitalise on my experience and technical skills with opportunities for personal and professional growth. A prospect of participating in any group project lets me developing my interpersonal skills. I hope this task will boost my confidence to be involved in group work and will sharpen my communication skills.

I truly believe that together, combining our talents, we will build a high quality product.

## • **Ryan Hunter**

Having never worked in a formal group before i am excited for the opportunity and to develop the skills I have learned throughout previous modules and projects. The chance to develop new skills is also a great chance for me to learn. I have very little experience with backend web development tools and techniques.

During this project i will have to greatly improve my knowledge of php in order to communicate with the server. My knowledge of a version control system is limited to just committing my own work. I want to learn how to properly use these tools in order to share work with my group.

Using tools such as Asana and Slack to communicate with the client and my group will also be a new learning experience for me. Asana allows the group to assign different task to individuals, thus making time management and managing deadlines easier for the whole group. Slack allows us to communicate in different channels which are dedicated for certain tasks. This will allow us to go back and easily find information discussed for each part of development, for example there will be a frontend chanel and a backend chanel.

I already have some experience with developing in HTML, CSS, javascript and python. During the development of this project i want to polish these skills and be able to create well designed, easy to use and aesthetically pleasing web pages.