Assignment Part 1

OUA Building IT Systems (CPT111)
SP1, 2022

Slipstream Devs

by
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1. What

1.1. Project Name

HVM2KOT – Heavy Vehicle Management 2 Keep on Trucking!

1.2. Project Description

HVM2KOT is a heavy vehicle fleet management software, enabling customers to collaborate on various projects by streamlining traditional systems into one centralised platform. The software allows for the tracking of customer queries (like traditional IT help desk's) and tracking of various KPI's, allowing for accurate measurement of cost-profit and how fleet activities are impacting the bottom line of the business. This software has significant real-world applications, as much of the automotive industry manages fleet activities through excel and various spread sheets... Such a streamlined process can assist in the increase of productivity tenfold and would create huge opportunities for cost-reduction.

1.3. The Team

Anh Pham

Student Email Address: s3804723@rmit.edu.vn
Your Locale: Ho Chi Minh city**,** Vietnam

Background & Passion in IT:
My fascination with IT originates from the movies I watched in the old days. But recently it has changed a bit when I feel really uncomfortable about the security of information in my country, it has no privacy and personal information is easy to be stolen. As I perfect my front-end skills I'll probably study more about network safety.

What are you good at / What you're interested in?

Currently my best language skills are html and UI, my python and java are not very good. I'm more interested in front-end skills than back-end skills.

What are your weak-point in the context of the project?
I myself lack a lot of experience for group projects like this. My programming language skills are too little when participating in projects, I am trying to improve this weakness and build myself better through projects.

What role do you see yourself mainly playing in the team?
I act as a programmer to help other members build and develop websites and collaborate with them on assigned tasks.

Dillon Clegg

Student Email Address: S3950563@student.rmit.edu.au
Your Locale: Perth, Western Australia

Background & Passion in IT:
My passion for IT began when I decided to get my first PC at the start of my secondary education. I spent many days and nights researching absolutely everything there was to know about any and all hardware, joining discord servers, watching popular YouTube content creators with channels based around PC's, and going into local computer stores to gather tips, tricks and information about anything that would help me on my journey to getting my first PC. From there I decided that I wanted to build a PC, as living the student life meant that I didn't have an endless supply of cash to drop on hardware, and figured if I built it myself it would be a good learning experience. Fast forward to the present, and I am still obsessed with PC's, I have built many for myself, family, friends and even randoms off Marketplace and GumTree. I also love overclocking, especially RAM as I find it incredibly interesting and although it's time consuming, there's a certain type of enjoyment that comes from achieving stable overclocks and pushing the limits of the hardware.

What are you good at / What you're interested in?
I am interested in computer hardware, and have a passion for overclocking. I love to learn about new technologies and how they've improved over previous generations, and the current generation of the competition. RAM and RAM overclocking are my areas of expertise and I have spent many hours testing and calculating primary and sub-timings in order to achieve the highest performing PC.

What are your weak points in the context of the project?
In the context of this project, my weaknesses would definitely relate to my lack of programming and knowledge of software. I have basic/fundamental understandings of how OS's run and interact with hardware, but beyond that I have no knowledge. I have started taking a beginner's coding course through Coursera.org to learn and acquire some knowledge in order to help my team out in any way I can.

What role do you see yourself mainly playing in the team?
The role I see myself playing in the team is a support role. I like to be given an instruction, or set of instructions, and carry them out to perfection as I have a tiny bit of OCD and completionism, which can be both a good thing and bad thing, situation dependant of course. I'm someone that's very keen to contribute any skills and/or knowledge that I have, and although I wouldn't consider myself creative, I can ask thought provoking questions that stimulate the creativity of others.

Conrad Wunderlich

Student Email Address: s3865671@student.rmit.edu.au
Your Locale: Brisbane, Australia

Background & Passion in IT:
Having always had an interest in technology and gadgets dating back to the ZX spectrum computer released in the 80's and the 1st generation iPod. IT has always been more of an ongoing hobby; my early career was more business and management orientated. With interactions with Information and technology have been as consumer and an end user. whilst trying to keep up with the trends as best I could the technology beast moves very quickly. My ideal Job before now was working for a Software company however recent events the next chapter is to better myself study IT. The reason I have selected this course for a better grounding and hopefully a career in Information & Technology sector. All the possibilities could be considered endless when it comes to IT. Having spent time in the automotive industry it could be Inventory control using barcode scanners in spare parts or using apps to engage your current customer and potential customers.

What are you good at / What you're interested in?

My professional background is primarily customer satisfaction and looking at how efficiencies can be introduced. After many years leading a high performing vehicle service and repair operation in metro Brisbane, my strengths are problem solving or reframing questions to help others critically think about the challenge at hand. My interests are the Qld Reds, V8 supercars, I have also been known to enjoy time out on Moreton Bay sailing and yacht racing.

What are your weak point in the context of the project?
Being a late entrant to IT and software world, let's say 30 years late. I have basic Html, Java, Python experience, with that said if I understand where personal weaknesses are I am able to build on these as I progress through the IT degree.

What role do you see yourself mainly playing in the team?
Once the team is formed and we have some synergy, I see my role being assigned tasks by lead developer with hands on sleeves up coding and testing.

Adam Mutimer

Student Email Address: s3875753@student.rmit.edu.au
Your Locale: Horsham, Victoria, Australia

Background & Passion in IT:
Over the years I have changed industries a few times, but always find myself coming back to IT, currently I own and operate my own IT business, offering desktop support to businesses and website development among other things.

My Father started my interest in I.T, when I was a young child, he was a computer programmer though out my childhood he taught me a great deal about computers ranging from repairing them, building them though to programming.

I remember all though my primary school days all I wanted to be when I grew up was a Computer Programmer like my dad, turning my own ideas and the ideas of others into reality, I really put effort in to learning programming languages when I started high school the first real language, I learnt was C, followed by LPC. I do not count HTML (Hypertext Markup Language) or JavaScript with icons following the user's mouse at this stage as programming.

In my spare time in high school, I enjoyed Playing LPMuds with people all over the world which some I still call friends, I also started writing my own LPMud during my high school days.

What are you good at / What you are interested in?
My strongest IT skills would be in both programming and administration of IT Systems. I am interested in all aspects of IT technology encompassing bot hardware and software. Above all my interest would be to learn new skills, whilst adapting old ones.

What are your weak point in the context of the project?
My weak point in this project would be graphic design, I have never put a great deal of time into honing that skillset, beyond the basics required for any task that I need to perform.

What role do you see yourself mainly playing in the team?
The role in which I will playing in this team would be that of a "Lead Developer" as a lead developer it is my job to ensure anyone in the team that will be developing code for this project has a mentor and has guidance in areas that may be beyond their current skill set, whilst developing and designing the project.

Mignone Tshamala
Student Email Address : s3409202@student.rmit.edu.au
Your Locale: Sydney, Australia

Background & Passion in IT:
I have studied Information Technology at (I.S.C) and also, I have ICDL qualification.

What are you good at / What you're interested in?
I am eager to do programming, additionally I have developed a website as a child Care service. I am creative in producing social contents.

What are your weak-point in the context of the project?
I could not have experience of leadership and I think I need to exercise more about management procedures.

What role do you see yourself mainly playing in the team?
I can help programmers to develop static website and prepare the content collaborating to assign task.

1.4. Demonstrable Outcomes

1.4.1. Minimum Viable Features

1.4.1.1. Secure Database

Validation Test:
User logins, Vehicle details, incident logging,
type if issue, start date to completion date.

1.4.1.2. GUI (Graphical User Interface)

Validation Test:
Users can add new cases, update, resolve or assign, also include status levels.

1.4.1.3. Reporting

Validation Test: Users can access, and view reports shown on the interface and the information contained in each report meets the reports specifications and contains valid data.

1.4.1.4. Accountability

Validation Test: Users and Managers can see who the case is assigned to, which identifies who is accountable for that case.

1.4.1.5 Driver Log Reporting.

Validation Test: Driver's log, which vehicle, start times, breaks times, finish times. Ability to report issues identified while in vehicle. Such as tire condition, lights not working, drivability.

1.4.2. Extended Features

1.4.2.1. Case Scheduling

Validation Test: Automatic cases are generated by the System. The System should follow the information entered by the user or manager, such as time-period, assignment for accountability, etc

1.4.2.2. Document Storage

Validation Test: Create a document storage repository on the data base, allowing relevant registration validation maintenance inspections.

1.4.2.3 Dashboard Graph's

Validation Test: Create a dashboard that allows a helicopter view of the business fleet. Some key performance indicators could be as follows:

- Critical incidents reported MTD or YTD.
- Department of Transport incidents.
- Lost time due to vehicle off road.
- Incidents that resulted in injury.

1.5. Project Motivation

The heavy vehicle industry plays a key role in keeping any economy rolling. As such, safety is paramount and accountability at the forefront of fleet management. This ticket-based issuing system, along with centralised documentation relating to fleet management would simplify a needlessly complex set of systems currently in place, reducing costs, simultaneously improving safety and accountability.

1.6. Project Justification

1.6.1. Justified Workload

As stated in the course requirements, group members on average will be putting in roughly 5 hours per week into the project, whether that be hands on development, or assisting in administrative work behind the scenes to ensure the project runs as smoothly as possible. Should the need arise though, group members are expected to match the amount of time (up to a reasonable amount) and effort being put in by their colleagues to ensure they are pulling their weight, and this may sometimes require more than 5 hours.

1.6.2. Beyond Current Capabilities

For the majority of the group, this project will be extending their current capabilities, as none of us have attempted to create a system/database of this size before and will need to learn new skills (or extend existing ones), especially in terms of programming.

1.7. Project Risks

1.7.1. Risk:

Team Member Unavailable or Drops out

Mitigation:

In the event a Team member becomes unavailable or drops out from the team. The project lead should immediately start reassigning that team members tasks to appropriate alternative team members with available time slots in their workload and appropriate skill set to accommodate the task.

In the event no team members are available to accommodate the tasks an emergency meeting should be called to restructure the current workloads of the team based on level of requirement to deliver the project.

Further failing to mitigate this risk, should result to escalation to upper management (RMIT Tutor)

1.7.2. Risk:

Project Delays / Missed Deadlines

Mitigation:

In the event of minor project delays for minor deliverable deadlines the project should continue with an updated time not exceeding the deadline for delivery of the project.

In the event of a major deliverable deadline being missed or delayed such as a deliverable which is a major dependency to other deliverables, an emergency meeting needs to be scheduled with all team members or the appropriate team members to discuss a solution to resolve the deadline issue within the project timeline or issue an amendment to the project remove feature requirements.

Failing to accommodate for these delays, will require the team leader to escalate to upper management to request a project timeline extension.

1.7.3. Risk:

Loss of Project Material / Data Loss (Low possibility)

Mitigation:

In the event of major data loss which would include the GitRepo the team

leader should automatically schedule and immediate team meeting, to determine the severity of the data loss.

As individual team members may still have up to date copies of the lost data stored locally, or slightly outdated versions to continue working on.

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Should the data been lost not have been committed to the Repo or shared work environments by the member who was working on the item and only their changes have been lost a meeting is not required, but the team member in question, should consider changes to their workflow to allow more frequent uploading of project data to repositories and shared work environments.

2. How

2.1. Resources & Tools

This project will require the following resources:

- Web Hosting
- Git Repository

This project will require the following Tools:

- Photoshop / GIMP
- IDE (Integrated Development Environment) suitable for HTML, CSS, JavaScript and PHP
- SQLite Studio – For database design and management

2.2. Collaborative Workspaces

Canvas
Microsoft Teams
Trello
GitHub

2.3. Communication Expectations

2.3.1. Team members have 12-24hours to respond to communication.
2.3.2. Team members are expected to attend the Tuesday weekly project meetings.
2.3.3. All meetings will have an agenda to increase the efficiency of the meeting to ensure that the mentor's time is capitalised on accordingly and all mission critical questions can be answered, or at least discussed.
2.3.4. All Microsoft Teams meetings will be recorded.

2.4. Decision Making Processes

The decision-making process for Slipstream Devs is fairly democratic, with as many polls and votes as possible being utilised to make sure that every opinion is represented, and every idea is discussed thoroughly. As a

result, we as a team can come to agreements fairly quickly on how to move forward, and what ideas to move forward on.

In the event of a dispute, the team leader will ensure that the matter is dealt with in a discreet way, and with utmost urgency to ensure that the rest of the team can remain on task and productive, whilst ensuring the members involved in the dispute can get back to working collaboratively on the project after any disagreements are mediated and resolved.

3. When

Title	Planned Start	Planned Due	Lead by
Week 5,6,7,8			
MVF0 - Develop the website	3/29	4/5	Dillon, Mignone
MVF1 - Authentication	4/5	5/12	Adam
MVF2 - User Management	4/12	4/19	Adam
MVF3 - Vehicle Assignment	4/19	5/3	Adam
Week 9,10,11,12			
MVF4 - Vehicle Tracking	5/10	5/15	Adam
MVF5 - Asset Management	5/15	5/22	Adam