ASSIGNMENT 2 FRONT SHEET

Qualification	**BTEC Level 5 HND Diploma in Computing**
Unit number and title	Unit 06: Managing a Successful Computing Project

Submission date	9/5/2021	**Date Received 1st submission**	9/5/2021
Re-submission Date		**Date Received 2nd submission**	
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Student declaration

I certify that the assignment submission is entirely my own work and I fully understand the consequences of plagiarism. I understand that making a false declaration is a form of malpractice.

	Student's signature	Thai

Grading grid

P5	P6	P7	M3	M4	D2

☼ **Summative Feedback:** ☼ **Resubmission Feedback:**

Grade:	Assessor Signature:	Date:
IV Signature:		

Contents

I. Introduction

To continue assignment 1, in assignment 2, we will analyze and give functions of products.

II. Research Analysis

A. Focus group

I have prepared a meeting with 2 members of my team to discuss the feasibility of the project and discuss functions related to the system. With the collected opinion, we can analyze these opinions is a specific way about the features, advantages and disadvantages of the system. But this method has some disadvantages, when the group members have some disagreement as well as their opinions are not satisfactory. It is very difficult to draw conclusions. In the worst case, this could lead to a quarrel that affects the development time of the project.

Analysis and evaluate: After using the subject focus group to collect opinion and information about the problem under study. Common opinion agrees and feel the project is very positive. It can be seen as a viable project when it comes to implementation. Some of the opinion given can be considered to learn from experience as well as improve the quality of the project.

B. Survey

I created a survey by Google Form and sent it out to randomly 30 people who live in Viet Nam to collect opinion data on my smart car project. Using the Google Form to save time, does not disturb people who need to collect data, is easy to use, everyone just needs a smartphone and has a network connection. Besides the data obtained by a specific google statistical form. From there I can compare pros and cons, compatibility, negative reviews about the project. But when the survey has some disadvantages, it should be noted that the survey respondents are indifferent to the survey, the survey is that some of the available questions are not specific and the information is not easy and specific. Especially reaching the wrong customer.

Analysis and evaluate: From the data that I have collected from the previous survey, there are specific figures to be expected. Almost 85% of people feeling bored or sleepy while driving for long distances. Almost, 75% of people have difficulty reversing the car and

80% of people get lost or do not know the way when traveling on unfamiliar routes. Almost 85% of people feel the smart car system is useful and will definitely will buy it. That can be seen as we need to focus them on developing systems that can help users minimize the problems they often encounter while driving.

III. Recommendations

A. Summary about our proposed system.

This system connects the vehicle's OBD 2 (On-board Diagnostics) port to display vehicle parameters directly from the system. Smart car is a system that helps to display the necessary information, helping the driver to focus on moving. Moreover, the system helps the driver to improve most of the skills while driving and also helps to minimize accidents.

B. List of features for our proposed system

Smart Display: The system line can be connected to smartphones through application. From there, users can view directions on the screen, view speed limits and many driving assistant functions. This device is also fully supported in Vietnamese, so it is extremely user-friendly and easy to use. The functions displayed on the system screen can be turned off and on through the system app. The intelligent driver's glass display, providing traffic data information, detailed directions do not require the user to change the viewing angle, making driving easy and safe.

Connecting Tire Pressure Sensor: the system is integrated with a tire pressure sensor built into the system or an external tire pressure sensor. With this integration, you can easily observe the parameters of the temperature, the wheel vapor and detect the fluctuations in this area in time. From there, there is a better way to care, repair and protect the tires.

OBDII Connection: The system connects via OBDII port to show the exact data of the vehicle, if before, some products updated data via GPS, the vehicle mileage is often inaccurate, causing many inconveniences for the driver. With system, it is possible to update and display many different operating parameters of the vehicle, helping the driver to be safe, and quickly and accurately update the vehicle: Status speed of movement, fuel consumption, battery voltage, radiator temperature, machine revs.

Voice Navigation Support: Through the connection with the phone, users can find their way by voice. The system display will show exact directions, along with other traffic warnings. This function is extremely useful for drivers, especially when entering new roads and busy roads that require a high level of concentration.

Situation aware systems: A 360-degree view gives the driver excellent safety feature and provides warning against potential collision. This looks into lane departure warning, blind spot detection, closing vehicle sensing.

Phone Connection, Voice Alert: The system can connect with smart phone so can use some applications that can be used to listen to music. The occupants can watch entertainment programs as well as listen to the news Users can connect system with application (free install on CH-Play or IOS) with the following functions:

- Precise warning speed limit on all roads in Vietnam
- When you exceed the speed limit of the road, the system will alert you immediately
- Warning camera for cold penalty, Camera tracking speed, Camera tracking red light
- Track weather information in real time

Figure 1: Smart Car

C. Advantages and Disadvantages of our proposed system

Advantages

- Modern, convenient, helping the driver a lot.
- Support for observing and ensuring vision while driving while still being able to receive information such as vehicle speed, rpm, engine indicators, coolant temperature, ... without having to bend down.
- Easy to install.
- Easy to use, suitable for a variety of vehicles whether old or new.

Disadvantages

- The buzzer and warning lights can distract a driver while driving, causing danger.
- The cost of the product is relatively expensive.
- Speed information is only good in good weather conditions and long distances.

IV. Reflections

1. Logbook 1

Name: Nguyen Vu Thai	
Project Title:	
Date: 1/4/2021 ~ 9/4/2021	
Update on week research/task achieved: Define research content and how to manage a project well.	
Any risks and/or issues identified? Unable to determine the content to research because of lack of knowledge	
Problem encountered: I don't have any problem	
New ideas and change of project direction: After identifying what needs to be researched and planned for the project, I feel quite confident in project management because tasks have been clearly defined.	
Tasks planned for next week: Project planning task include project charter	
Project plan status to date: On	

2. Logbook 2

Name: Nguyen Vu Thai
Project Title: Smart Car
Date: 12/4/2021 ~ 20/4/2021

Update on week research/task achieved:
 	
I will give project charter of the project including:
   ▪ Overview
   ▪ Scope
   ▪ Time
   ▪ Communication
   ▪ Risk
   ▪ Resources

Any risks and/or issues identified? Poor English is the biggest deadline for me. besides, I often lose focus on other matters. Besides, this is the first time I learn about IoT, so it is quite disadvantage to complete the topic.
Problem encountered: I don't have any problem
New ideas and change of project direction: I have no idea of changing the project
Tasks planned for next week: Project planning include WBS and Gantt chart
Project plan status to date: On

3. Logbook 3

Name: Nguyen Vu Thai
Project Title: Smart Car
Date: 29/04/2021 ~ 5/5/2021
Update on week research/task achieved: I draw a WBS and a Gantt chart to get a better overview of the general directions of the project.
Any risks and/or issues identified? The first time I used Gantt Chart drawing software, it took a lot of time.
Problem encountered: I don't have any problem
New ideas and change of project direction: I have no idea to change anything
Tasks planned for next week: I will do primary data gathering so I focus to create question for interview and prepare a meeting for focus group
Project plan status to date: On

4. Logbook 4

Name: Nguyen Vu Thai
Project Title: Smart Car
Date: 7/5/2021 ~ 14/5/2021
Update on week research/task achieved: In this week I will do primary data gathering focus on: Focus group: Create description and prepare report after meeting Survey: Create survey question
Any risks and/or issues identified? The selection of questions to survey takes a lot of time. It is also difficult to reach people who need to be surveyed because the majority is not the issue that they care about
Problem encountered: The answer quality of the survey was quite poor as well as disagreeing with opinions in the focus group. So, I reached out to more audiences that were interested in this content as well as created some more specific questions. In the focus group, I divided the team members, from which the idea synthesis took place more smoothly.
New ideas and change of project direction: I have no idea of changing the project
Tasks planned for next week: I will do secondary research so I have to find out how to search for material online and select and summarize it
Project plan status to date: On

5. Logbook 5

Name: Nguyen Vu Thai	
Project Title: Smart Car	
Date: 15/5/2021 ~ 22/4/2021	
Update on week research/task achieved: In this week, I have to select online documents related to the content I have selected to synthesize and develop more the system. I have compiled 3 articles related to IoT and smart car.	
Any risks and/or issues identified? Choosing the right document for the project has difficulty when it is not known which documents are reliable.	
Problem encountered: Summarizing and selecting useful information from the document is difficult to complete so I have to spend extra time every day and ask the help of some friends to compile the documents.	
New ideas and change of project direction: I have no ideas to change project	
Tasks planned for next week: Analysis data that collected from the previous 2 data gathering.	
Project plan status to date: On	

6. Evaluation:

After researching the project, it can be seen that this is a quite successful project. Research content is quite interesting to users. The project was also completed properly, the project's difficulties were also overcome. There was no unfortunate incident.

Through this project, as a manager, I realized that, to have a successful project, we need to clearly analyze the feasibility of the project, in accordance with the needs of society. When giving an idea, we need to study clearly the features that it brings to the user, on the other hand, we have to overcome the limitations it causes to society. We need to research how to proceed and operate to assess the viability of the project. Especially the scope of project implementation, ensuring supply and demand, the project will develop and be successful