

Project Plan

Aims:

I have several aims for my project. The aims will be broken down into different parts to show exactly what my project should do.

In general the aims of the project is to analyse the rise of expenditure on gym memberships and supplements to aid a portable personal trainer application. The research behind the project will aim to help make a prediction on why people have joined the gym. This will help give a clear indication on the cause of rise of expenditure on gym memberships and supplements.

The main IT aim is to produce a Portable Personal Trainer Application. The research and application will link through the content that will be included. The research generated will include up to date facts and figures that will inform the user on the top products whilst giving other useful information. This will make the application more than just a 'personal trainer' as it can aid in everyday decisions.

Another aim of the application is to teach users how to perform exercises in a safe manner and recommend repetitions and sets. The application will contain several other factors:

- Pictures and videos to make it clear
- Up-to-date facts on supplements. Saves user time in conducting own research
- Facts and figures on certain foods
- Sleep recommendations
- Suggestions on diet and a plan for diet
- Graphs and charts

Objectives:

My objectives will outline how the aims of the project will be met. This will be backed up further with the requirements later in the plan. My objectives reflect on what I must do in order to deliver the project:

- To analyse the rise of expenditure on gym memberships and supplements, I will need to conduct primary and secondary research.
 - Primary research will have to be basic due to time and funding. It will include questionnaires/survey and some interviews with gym members.
 - Secondary research will be collected from respected sources, e.g. articles, scholars, sale feedback forms, customer feedback forms and companies' annual reports.
- To create the Portable Personal Trainer Application, I will have to do more research on the coding and learn how to make it secure. As users will have their own accounts, they will personalise it and want to make it safe. This can be tested through various tests such as password encryptions present or not. It will be measured in the testing stage. If you cannot get into another user's account or details, then it will be secure.

- The application and interface will be coded in Java and HTML. This will require some reading and further individual development to produce good structure code.
- Need to connect to a database securely and close the connection when done to ensure it is secure.
- The application needs to work on several devices. I will have to make sure it works and is supported on different platforms.
- As I am a qualified personal trainer with company insurance I am legally protected to release this application with the content. I will be creating the exercise pictures and videos plus including the steps within the application. All this will avoid copy right issues but also also have the exercise content covered.
- The section that will contain the charts and tables will come from the research that I have conducted. The charts and table will be made from my own work to avoid conflicts on copy rights.
- If possible, by the end of the project I would like to make the application that should work on a phone and computer to be able to come in several languages. This is a want; it may not actually happen if I do not have time to find out how to do this.
- Design aspects will be based on other application and personal preference. Must design the application so it is user friendly and gains good user experience. (These go hand in hand.)
- Designing a simple user interface so it is not too complicated to use as there will probably be no form of teaching users how to work the application. Links with User Experience.
- To keep track of all the interim reports and interviews I will keep a personal diary, using planning applications such as a gantt chart and ME+ and keeping alerts on my laptop to help me keep on top of the deadlines.

Challenges Expected:

- Creating an application that is compatible with several devices/software e.g. Making sure that it is supported on different platforms.
- Conducting primary research as no budget has been provided.
- Keeping the application consistent on every level and platform. It will be a challenge to ensure that the format can work on all. This will include video and image formats.
- Ensuring all the data that is included is free to use or is mine. The final stage can be releasing the application so have to make sure all data can be used.
- Connecting to a database through different accounts and closing the connection when done. This will require some further research to make sure that users can only access their data and no one else's.
- Adding/Combining different sections of codes. This can happen from developing different parts but have to ensure that there are no clashes.
- Keeping the security up across the platforms. Main aim is users feel that their account is safe and not going to reveal any personal information.

Originality:

- The project is focusing on a massive trend in the current market. Studies show that every 1 in 3 people have a gym membership now. I want to use this opportunity to find out why there has been a huge increase.
- There are many applications out there that are not up to standard within the information. Most people tend to use things like YouTube or bodybuilding expert sites to find out what exercises to do etc. I want to make an application that is desired and not just out there to make some money. This application will be different as it will not just have exercise tips etc. It will also include crucial facts and figures to help users with decisions. I will develop the Portable Personal Trainer Application into an application that will show update statistics and other crucial information that many gym users do not know. For example, the amount of sleep you have directly impacts your body fat percentage.
- A fresh idea will be the facts and figures all included in the application. The data will come from research and will be included to make this application different from the others. Another new idea is personal videos that will only be available on the application and not something like YouTube.
- This application, like many, should be supported by several devices and software.

Requirements:

Functional Requirements

- Connect to a database securely. Do this via MySQL.
- Password should be encrypted.
- Application will have a login page that offers a selection “New User” or “Forgotten Password”.
- Application will send an email out to verify the account with email. This is for authentication.
- User selects the type of exercise they want from a drop down list. From this the application will display exercises, videos, pictures and ratings.
- The application should be supported on several platforms. The security aspect has to work across every device.
- Application can function on both mobile devices and computers.
- The application will use date and time from the device to help keep records.
- Resilience of application needs to be good. If update is needed the system should still be able to function.
- System should close connection with the database when the user closes the application.
- The system will contain the users accounts and an admin account.
- Users will have an option to contact admin regarding any issue/query.
- The system should save all the data inputted by user automatically.

System/UI Requirements:

- Users can input personal data such as name, gender and age. Will have other data they can input such as weight.
- The application can keep track of things like a diary if the user chooses this option. They can tick their favourite exercises.
- Can only record present or future with date and time. System will not accept dates before the current date.
- Application can send reminders or alerts on phone or computer.
- Contain a tab which acts as a blank document for the user to add notes or reminders in.
- Ratings on each exercise to show what other users think and how effective it is.
- The application should contain several pages/tabs. Each tab should have a specific role or task. For example, tab one will be the home page. The user should be able to change pages when they want to.
- Refine searches to exclude certain things e.g. Allergies to nuts.
- The application can provide information on recommended daily calorie intake.
- The application will ask the user what is their goal e.g. lose weight, gain muscle mass etc.
- Will contain workout ideas with pictures and videos explaining how to complete the exercise in a safe manner.
- The application will have a section of other useful information such as amount of sleep etc.

Non-functional Requirements:

- Application must be consistent throughout. This can be with themes, size of font etc.
- Must be straight forward and easy to use. May contain a FAQ page but should not be difficult.
- Easy to navigate around and undo actions. For example, change rating on exercise.
- Simple to add or remove personal data when user wants.
- All instructions, data, pictures etc. must be clear.
- User should be able to upload a profile picture and remove or change the picture.

Additional Requirements if possible:

- The application will provide the user with estimate time to achieve goal, if routine/diet followed.
- Change the language of application.
- Show a 'trend' of what other users are using and rating positively.

Resource Requirements:

- Time for research to be undertaken.
- Computer and open source software to help aid development.
- Use of SVN.

- Code developing application. E.g. Eclipse, STS.
- Database software such as MySQL.

Quality Assurance:

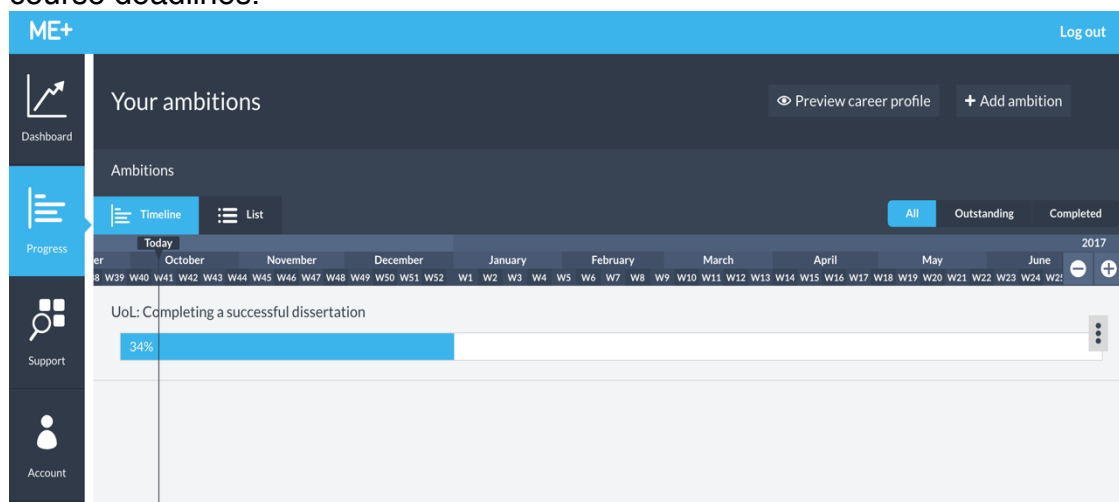
- All the research conducted will be shown in the dissertation. This will help show where the data included in the Portable Personal Trainer Application came from and also explain why it has been included or left out.
- By the time most the application has been developed I will begin testing. Testing the application thoroughly is an important part as I need to ensure it is error free. An example of a test will be to ensure no two users can have the same user name.
- before the application is fully complete. I aim to complete an end-to-end testing to ensure the application should run smoothly and behave correctly from start to finish.
- Aim to have a selected group try my application to test the user interface. This will allow me to assess the user friendliness and user experience. I aim to carry this out before beginning of May to give my self some time to change and amend areas if it is required.
- All the tests will ensure that the final application is perfect and set for release. The test results will be included within the dissertation.

How to keep track of my plan:

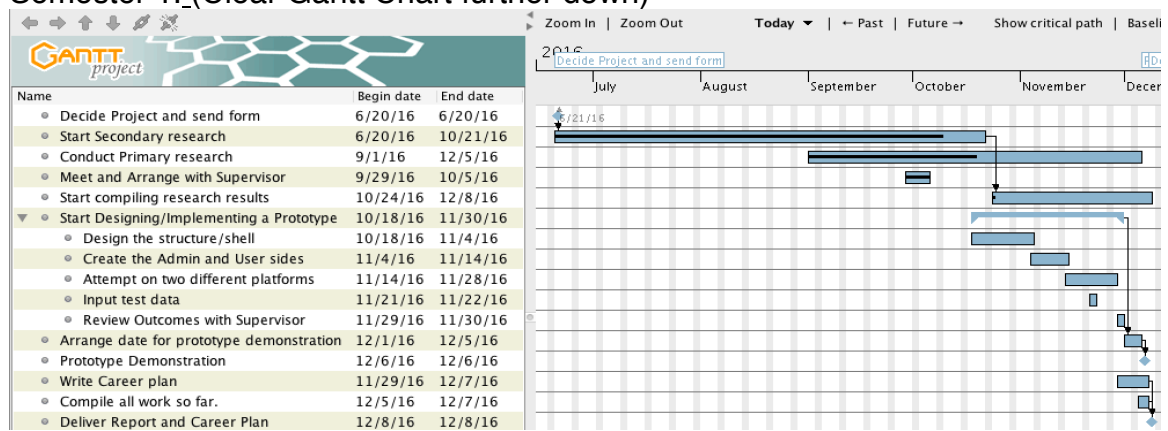
- I will be using several tools to help me plan and keep track of my work.
- The tools will include:
ME+, Gantt Chart and Personal Diary.
- I will also refer to this document to ensure I meet all the requirements etc.

Plan:

- The use of ME+ will act as a foundation. I aim to use this to keep track of my progress and what I should be focusing on as it has been aligned with the course deadlines.



- The use of gantt chart will help me stick to my plans and deliver the project on time. Below you will see a detailed schedule alongside the gantt chart for Semester 1. (Clear Gantt Chart further down)

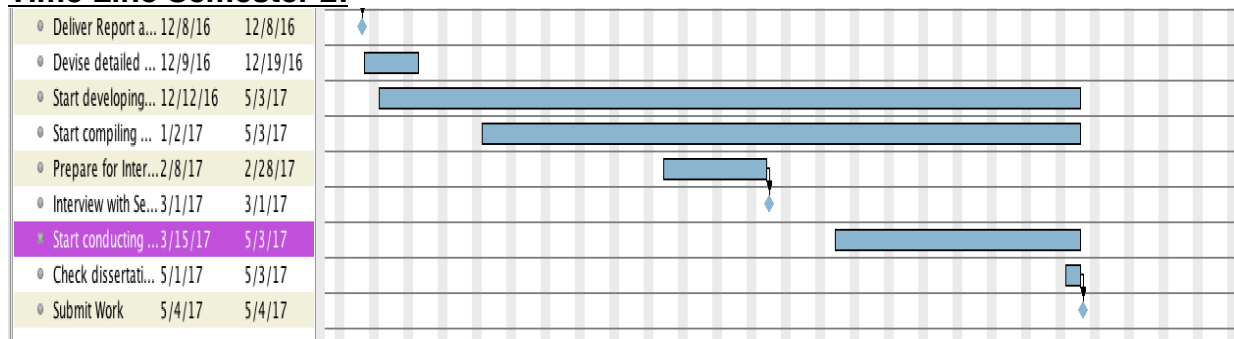


Time Line Semester 1:

- Decide on project.
Date: 20/06/2016.
This is a milestone due to the importance. This is the start of a year long project.
- Send off project form.
Date: 20/06/2016.
- Can start conducting secondary research.
Date: 20th June 2016 - 21st October 2016
This research will include company reports and statistics from gyms and businesses.
- Conduct primary research.
Date: 1st September 2016 - 5th December 2016.
This will include questionnaires and small focus groups.
Both research will take place over the course of semester 1. This will help the understanding and development of the application.
- Arrange meetings with Supervisor and clarify project.
Date: 26th September 2016 - 5th October 2016
- Start compiling all data from the research into a presentable format.
Date: 24th October 2016 – 8th December 2016
Need to understand the findings and start taking out what will be included in the application.
A time frame of 5 weeks has been allocated as research will continue until the closing of Semester 1.
- Start designing and implementing a prototype.
Date: 18th October 2016 - 27st November 2016
Within this time, must develop a plan within to understand how I will produce a prototype. Will be split into several development parts e.g. deploying on two platforms.
Must conduct research on java skills to produce the application.
Decide on what the prototype will focus on.

- Get feedback and opinions on prototype. Use this time before delivering prototype.
Date: 21st November 2016 – 25th November 2016
From feedback, can alter some parts of the prototype before submission.
- Prototype Demonstration.
Date: 28th November 2016 - 2nd December 2016
Arrange a day for it.
This is a milestone due to the importance. When this has been reached, a substantial amount of the project has been done and I can use this to reflect on my achievements but also my weaknesses.
- Write career plan and write up all the work done so far. Work on the formatting of diary inputs and make sure it is presentable.
Date: 1st December 2016 - 7th December 2016.
- Meet with supervisor between to discuss how project will help career plan. Understand how your project will develop you as an individual.
Date: 1st December 2016 - 7th December 2016
- Deliver Report and Career Plan.
Date: 8th December 2016.
This is a milestone due to the importance. This is the last piece of work handed in before the Christmas break. From this stage I must know what is required to complete the project and what to work on over the holiday.
- Once report has been delivered, focus on constructing a detailed plan for Semester 2.

Time Line Semester 2:



- Develop from the prototype. Start producing the final application.
Date: 12th December 2016 – 3rd May 2017
Must have clear views on what the application does and what it will contain. Research should have concluded by now.
- Start compiling the dissertation.
Date: 1st January 2017 - 3rd May 2017
Include all required areas such as Abstract, Introduction, Survey of Information Sources, Requirements, Specification and Design, Implementation and Testing, Critical Appraisal, Conclusion and finish it off with Bibliography/Citations.
- Prepare for the interview.
Date: 1st February 2017 – 24th February 2017
Must arrange date with second marker.

Take the prototype feedback into account when preparing.
Conduct some tests before the meeting.

- Interview with Second Marker.

Date: 27th February 2016 – 3rd March 2016.

This is a milestone due to the importance.

- Test Application.

Date: 1st April 2017 – 3rd May 2017

Can start testing areas that are complete to avoid a large sum of testing at the end.

- Ensure Dissertation and Application are at the correct standard. Proof read and double check before submission.

Date: 1st May 2017 – 3rd May 2017

- Dissertation due.

Date: 4th May 2017

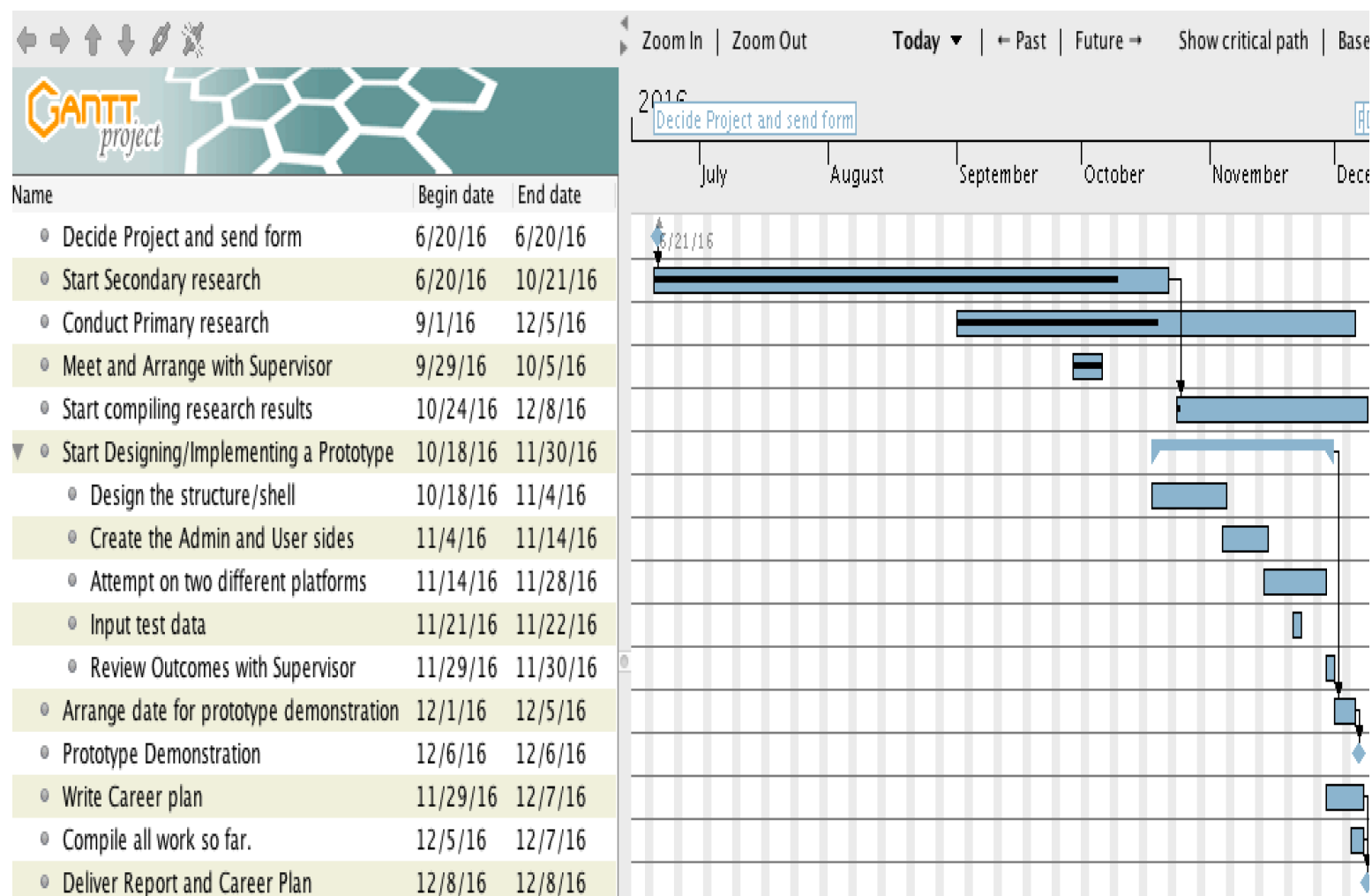
- Application/Software System due.

Date: 4th May 2017

- Viva and Presentation.

Date: During examination period

Gantt Chart for Semester 1:



The link between research and application:

The research will aim to analyse the the rise of expenditure on gym memberships and supplements to aid the portable personal trainer application. By finding the indicators on why there has been a rise, it can help change this application from just teaching exercises, to an application that is packed with useful information and data that will help the user on a day-to-day basis. For example, this application will show the types of products people use and what is preferred and why. This will help users make decisions.

The research will help me answer why there has been a dramatic rise in figures on the expenditure but also aid the development of the application. I can develop an application based on the findings to make it something a consumer desires. Using the factors on why there has been a rise will hopefully make the application a success.

The application will contain most of the data generated from the research. This will show users more information and explain that everything is important for a healthier life, not just exercising. This application will require the research to be successful as it is being developed based on consumer behaviour and wants.

Further to this, the study will have provided more knowledge for the application and will use this as a selling point for the Portable Personal Trainer Application.