# Group Proposal

# Assignment 1

# CMP2089M

A picture containing text, book

Description generated with very high confidence

***Group 36***

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*Social network*

# **Aims and Objectives**

Aim:

* ‘SwanHub’ is a social networking and hosting platform specifically designed with students in mind. The aim of the site is to give the registered members the ability to communicate with other students at the university by sharing information, documents and events more easily via direct links and posts. Making the student feel connected with campus life 24/7 through the power of ’Swanhub’.

Objectives

* Create a website that is mobile responsive

- Statistics show that (Mobile share of website visits worldwide 2018, 2019) 52.2% website traffic worldwide was generated through a mobile phone, which justifies the reason to design for mobile first with majority of the audience being mobile phone users.

* Fast and dynamic social networking platform.

- The advantages of the website being dynamic makes it easy to update as the needs of our users grow. Making a dynamic website will improve login features and make the over-all content more user friendly.

* Develop a brand ‘Swanhub’ which follows the university brand.

- Following the university brand through the student union would create consistency through our website and the University of Lincoln. (Lincolnsu.com, 2019).

* Keeping the intended users connected.

- Keeping the intended user connected through the ‘SwanHub’ platform by making long term friendships through their degree or likes and dislikes.

* Community feel is created via the website.

- Involving people through the ‘Swanhub’ in local events and sharing university photos from university businesses and student union.

* Businesses and university led schemes can be advertise through Swanhub directed at the intended user.

- Such as ‘The Swan’, ‘The Engine Shed’, ‘The Barge’ and events hosted through the student union.

* Follows Nielson’s 10 Heuristics principles (Designprinciplesftw.com, 2019).

- To conform to the heuristics for user interface design which will enable the users to flow through the website with little error and efficiency.

* Conforms to W3C.

- For ‘Swanhub’ to meet the standards and using the validator will check the correctness of the html to produce more accessible web pages.

* Events are pushed through notifications to the intended user.

- Events are kept up to date and interact with the user to inform them of events that are happening in and around the university.

* Create long lasting connections between liked minded users.

- Creating a website that keeps the user connected to friends they have made throughout their degree as well as societies and their union.

# **Section 2: A list of *five pieces of academic literature* which have been identified (by the group) as being directly relevant to the project.**

* McLaughlin, B. 2012. ‘*PHP & MySQL: the missing manual’*. O'Reilly Media, Inc.

- ‘PHP & MySQL’ will be used as a guide to work alongside the knowledge and skills of the front and backend developers within the group. Html, CSS, JavaScript and MySQL are skills that the developers within the group have, these skills are built upon within this book whilst showing the best practices of PHP. The developers are aware that this book instructs you to use deprecated function such as connecting to and/or querying and SQL, but there will be consideration to adapting the code if it is used by using knowledge that the group already have.

* Maxfield, W. 2000. ‘*MySQL and PHP from Scratch’*. Que Corp.

- This book will be used in conjunction with *‘PHP & MySQL: the missing manual’.* The first 2 - 3 chapters which teach the basic of PHP which will be needed for certain developers of the group.

The group members which need to learn PHP have found the material to be clear and comprehensive with illustrations that show the principles of PHP. This book provides the basic set up of a database driven website which ‘Swanhub’ site will have, as well as showing the developer how to create a data entry system which could be used.

This book is also written in mind of Linux users which several of backend developer use within our group.

* Coronel, C. and Morris, S., 2016. ‘*Database systems: design, implementation, & management’*. Cengage Learning.

- As a group the knowledge is lacking in areas such as implementation and management of a database driven website. ‘*Database systems: design, implementation, & management’* is a book with an understandable resource with clear and organised content. It shows examples of how to connect the database to the web which is where the group are lacking in knowledge making this an important book in conjunction with the book ‘*MySQL and PHP from Scratch’*.

* Powell, T 2008,*’Ajax: The complete reference 1st Edition’.* McGraw Hill Education.

*- ‘Ajax: The complete reference 1st Edition’* provides an insight into different mechanisms to build and test Ajax-run web application. This book will guide the group into creating a flexible Ajax application. Areas of the book are of interest such as implementing UI patterns which would improve our social network by using patterns such as auto suggestion.

* Jakobus B. 2016. *‘Mastering Bootstrap 4’*. Packt Publishing.

*- ‘Mastering Bootstrap 4’* introduces the reader to some of the concepts of bootstrap. We as developers have decided to use bootstrap and the book introduces the reader to components and tools that bootstrap provide. ‘Swanhub’ is being made with mobile first, ‘*Mastering Bootstrap 4’* provides a chapter on mobile first grid system to add a responsive state to the website. Whilst the examples in the book are not fully functional, it gives you the basic principle of how to use bootstrap.

# **Section 3: A project plan**

**Design - Caitlin and James**

Design of the product will be created with mood boards and wireframes, keeping in mind Normans six key principles whilst creating low and high prototypes to check that the usability heuristics meet expectation. The low fi prototypes will take in forms of wireframes and story boards whilst the high fi protypes will be a GUI landing page.

When designing the website for social network it will consist of:

* Student Profile
  + Provides student information.
* Student Feeds
  + Feeds from other companies and other students from the University of Lincoln.
* Images
  + Images uploaded by students for their profile or feed
* Videos
  + uploaded by students for their profile or feed.
* Campus jobs
  + Jobs advertised for students in and around the campus relating to degree or general.
* upcoming events
  + updated and added via super users.
* Houses / room to rent
  + House and rooms for rent uploaded by students and accommodation services.

**Front end - James & Caitlin**

The front-end developers will be responsible for the social networking website’s user interface via html, CSS and JavaScript which will manipulate the architectural frame of the website. We will also be considering the use of jQuery libraries which will minimise the time need to write the HTML and event handling, as well as CSS animation, and Ajax. jQuery is a free, open-source software providing we use the permission of the MIT License. Ajax will be used in conjunction with HTML5 to work in the background of the website to minimise any interruption.

**Back- end – Chris, Shivam, Kiran**

The back end of our website will consist of a server, an application, and a database. The application will be processed through a server-side language such as PHP. With PHP being an open source language, it would make our networking website more dynamic and interactive with databases such as MySQL. PHP will create, open, read, write and close any files whilst gather data from the user’s email. Where needed we will restrict users to access to some of the pages to our website, for example our super users would have more access than our general student users. Working alongside PHP, MySQL organise large amount of stored information that is accessible through PHP. We have decided to use MySQL as its fast and reliable whilst also being a free open source.

**Testing – Caitlin**

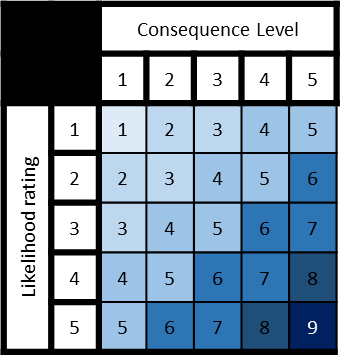
Testing will be arranged when the protypes have been created for our website and towards the end of finalising the product, making sure it meets our group expectations. The testing will consist of functionality, usability, interface, compatibility, performance and security will be tested. These checks will be fulfilled by:

* Checking cookies by disabling or enabling the cookies in the browser.
* checking all fields within forms are accepting information.
* validation of our HTML through W3C website.
* checking the website for potential bugs before making the website live.
* Functionality of the database records deletes and updates data correctly.

# **Section 3: A risk matrix for the whole project.**

***Risk Matrix***

The risk assessment uses a risk matrix. To help quickly understand how important it is to minimise the risk, an evaluation on likelihood and consequence (lower numbers for less likelihood and smaller consequences) is entered in the following table and the given is categorised as below:

Key: (Value – Category of Risk)

1 = Negligible risk

2-3 = Minor risk

4-5 = Moderate risk

6-7 = Strong risk

8 = Major risk

9 = Critical risk

**Risk Assessment Table**

Potential risks to the project all have a category and have a prepared mitigation to prevent them from occurring and give direction for if they occur.

|  |  |  |  |
| --- | --- | --- | --- |
| Hazard and Category | | Risk Specifics | Measures |
| Electrical Hazards | Minor (1-3) | Damaged or badly managed electronics can pose an electrical hazard to workers. | - Do not use damaged or faulty equipment, especially if there are exposed wires.  - Tell others in the vicinity about the hazard and the proper persons to get the equipment replaced or fixed.  - Keep drinks and other liquids out of areas with electronic equipment. |
| Public relations issues | Moderate (6) | Issues with consumer complaints could appear with ‘Swanhub’ due to insensitive content or accidental posts being shared as well as employee misbehaviour which could in affect give ‘Swanhub’ negative press and cause poor company performance due to these factors. | - Monitor content that is published on the social network as well as produce an algorithm that searches content for insensitive post.  - Have a policy and procedure in place that handles negative press and performance measures. |
| Human Error | Strong (6) | Employees exposing the business to scams and attacks by opening a link that has malware. | - A pointed staff members to know password |
| * Platform outages | Minor (2-3) | When ‘Swanhub’ is used extensively it may increase the amount of internet bandwidth required. If the service is not properly planned, then it could impact other services that rely on the same bandwidth. | - Monitor usage by recording research  - Increase bandwidth when needed  - Create adequate planning for such problems: such as staffing, informing clients etc. |
| Copyright infringements | Major (8) | Copyright infringement consist of exposure to legal liability include: slanderous, libellous, or defamatory comments; leakage of sensitive information; online bullying; breach of copyright; and, breach of intellectual property rights. | -Perform routine checks for bullying and breach of copyright using algorithms to search data for such content.  - Music is prohibited to stop confusion.  - Gain consent from owner of source code if open source code is used. |
| Identify theft / hi jacking | Strong (6 – 7) | - Using basic verification makes it easy for one person to pose as another, intern means they can make a fake account or profile, which could cause inflict to the individual personal or reputational damage. | -To prevent this, we could verify a user’s identity with password restriction and controls.  - Such as adding a mixture of upper- and lower-class letters, such special characters and numbers.  - Two authentication methods such as biometrics along with password.  - unattended accounts to be removed with communication to user of redundancy.  -Using a third-party authentication such as Google, Facebook etc. |
| Physical Effects of Computer Use | Moderate (4-2) | -Workers spending a lot of time on a computer may experience some of the following negative consequences:  - Eye tiredness and strain  - Back and posture pain  - Repetitive strain injury | - Take regular breaks when working which include not just looking away from the screen but standing and moving the body.  - Keep screen brightness to the lowest usable option and when working late use software to reduce blue light.  - Have supportive chairs which correct posture as well as correct distance away from the screen. |
| Equipment Security | Moderate (1-5) | Loss of the physical equipment and all hard data due to crime or disaster (fire, flood). | -Have a secure office place only accessible to those with the correct authority (e.g. lock doors, do not allow in unauthorised people).  - Have working fire alarms and have workers know emergency numbers. |
| Data Security | Strong (2-5) | This involves data collected from users being compromised. | - Store data in a secure location and always require passwords to access data.  - Minimise amount of locations data is saved.  - Do not store data portably.  - If physical copies of data are made, ensure they are properly destroyed when no longer needed.  - Ensure there is encryption and pseudonymization of data. |
| User Safety | Moderate (1-4) | Users may contact other users, and some may have malicious intentions. | - Have reminders to users about how to keep themselves safe (meet in neutral locations and inform a trusted person etc.)  - Require verification steps to create an account including (but not limited to) captchas and institution verification.  - Option to anomalously report suspicious or malicious users to be reviewed by a real person. |
| Data Loss | Strong (2-5) | Nodes/servers in the data storage centre may go down, therefore losing data about users and/or projects. | - Make use of server provider’s data replication services to ensure automatic backing up of data held (e.g. data redundancy packages). |
| Privacy Violations | Moderate (4-5) | Clients privacy can be violated through “data scraping.” which tracks people’s activities online and gathers personal data from their use of social media sites. | - Encrypt of data  - Use firewalls  - Follow Laws within the UK  - Warn clients of publicly sharing information online |

**Section 4: individual’s contribution section.**



**CMP2089M – Group Project Contribution Table**

Details: This form should be used to identify the contribution of individual team members within your group. You must list all the names of your group members and allocation a proportion of the available 100 points to each member.

For example, a group of 5 members with an equal contribution would each receive 20 points (totalling 100).

This form ***must***be agreed and signed by each member of the team and inserted into your report.

|  |  |  |  |
| --- | --- | --- | --- |
| **Name** | **Student ID** | **Contribution** | **Signature** |
| Caitlin Madin | MAD17657834 |  |  |
| Christopher Page | CP17636 418 |  |  |
| James Cheek |  |  |  |
| Shivam Panday |  |  |  |
| Thomas Keady |  |  |  |
| Kiran Thomasson | THO15625218 |  |  |

# **Section 5: A List of References**

* Opensource.org. (2019). *The MIT License | Open Source Initiative*. [online] Available at: https://opensource.org/licenses/MIT [Accessed 11 Feb. 2019].

* Mark Otto, a. (2019). *Bootstrap*. [online] Getbootstrap.com. Available at: <https://getbootstrap.com/> [Accessed 11 Feb. 2019].

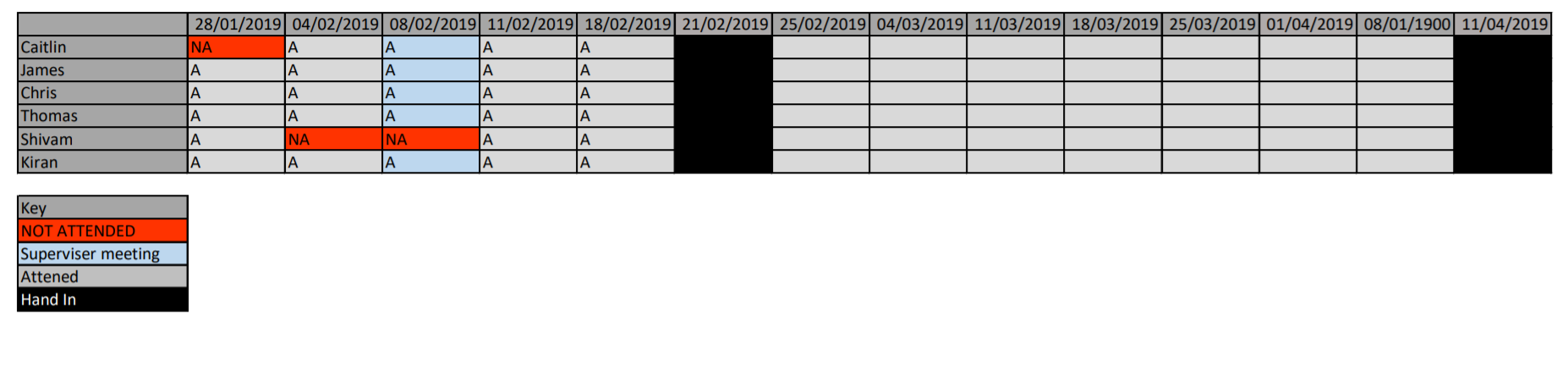
* js.foundation, J. (2019). *Download jQuery | jQuery*. [online] Jquery.com. Available at: <https://jquery.com/download/> [Accessed 11 Feb. 2019].
* W3.org. (2019). *World Wide Web Consortium (W3C)*. [online] Available at: <https://www.w3.org/> [Accessed 11 Feb. 2019].

* 2018, P. (2019). *Mobile share of website visits worldwide 2018 | Statistic*. [online] Statista. Available at: <https://www.statista.com/statistics/241462/global-mobile-phone-website-traffic-share/> [Accessed 11 Feb. 2019].

* Lincolnsu.com. (2019). *University of Lincoln Students Union*. [online] Available at: <https://lincolnsu.com/home> [Accessed 11 Feb. 2019].

* Designprinciplesftw.com. (2019). *10 Usability Heuristics for User Interface Design | Design Principles FTW*. [online] Available at: <https://www.designprinciplesftw.com/collections/10-usability-heuristics-for-user-interface-design> [Accessed 11 Feb. 2019].

**Section 7: record or log of all group meetings**

***Team Attendance***

***Minutes***

Monday 28th January 2019 – 1900 lasting approximate 1hour

Attendance

* Christopher Page
* James Cheek
* Shivam Panday
* Thomas Keady
* Kiran Thomasson

*Apologise*

* Caitlin Madin

Discussed:

* Project ideas –
  + Decided on a network for the university
* Project to be uploaded onto GitHub
* Shared OneDrive for documents.

*Weekly Objectives*

|  |  |
| --- | --- |
| ***Previous project objectives*** | ***Completed by (name)*** |
| Create GitHub repository | NA |
| Create shared OneDrive | NA |
| Start on proposal | Caitlin Madin |

Next Meeting: 4th February 2019 at 1900 app 1 Hours

Monday 4th February 2019 – 1900 lasting approximate 1hour

Attendance

* Caitlin Madin
* Christopher Page
* James Cheek
* Shivam Panday
* Thomas Keady
* Kiran Thomasson

Discussed:

* Project proposal
* Network to include
* Literature
* Open software research
* Proposal divided between group

*Objectives from previous meeting*

|  |  |  |
| --- | --- | --- |
| ***Previous project objectives*** | ***Completed by (name)*** | ***Achieved*** |
| Create GitHub repository |  | No |
| Create shared OneDrive | James | Yes |
| Start on proposal | Caitlin Madin | Yes |

*Weekly Objectives*

|  |  |
| --- | --- |
| ***Project Objectives*** | ***Completed by (name)*** |
| Network Name | All |
| Start on proposal | Caitlin Madin |
| Aims and Objectives | James |
| Risk and Gantt Chart | Thomas |
| Research into Literature | Kiran |
| Project Plan | Caitlin |
| Start researching into backend | Chris |
| Appoint Lead | Caitlin |
| Contact supervisor | Caitlin |
| Create GitHub repository |  |

Next Meeting: 11th February 2019 at 1900 INB

Friday 8th February 2019 – 1100 lasting approximate 1hour

Attendance

* Paul Baxter (Supervisor)
* Caitlin Madin
* Christopher Page
* James Cheek
* Thomas Keady
* Kiran Thomasson
* Shivam Panday

Discussed:

* Project proposal
* How our group to will work
* Literature
* Meeting with supervisor
* Inform P.B on how the work is divided

*Objectives*

|  |  |
| --- | --- |
| ***Project Objectives*** | ***Completed by (name)*** |
| Project idea explained | All |
| Individual contribution to project | All |
| To start working on the project | Chris / Shivam / Kiran |
| Design | James |
| Finish proposal at agreement of other members | Caitlin / Thomas |
| Future meetings to be 2 – 3 weeks | All |

Next Meeting: To be agreed

Monday 11th February 2019 – 1900 lasting approximate 1hour

Attendance

* Caitlin Madin
* Christopher Page
* James Cheek
* Shivam Panday
* Thomas Keady
* Kiran Thomasson

Discussed:

* Project proposal
* Network to include
* Literature
* Open software research
* Proposal divided between group

*Objectives from previous meeting*

|  |  |  |
| --- | --- | --- |
| ***Project Objectives*** | ***Completed by (name)*** | ***Achieved*** |
| Network Name | All | Yes |
| Start on proposal | Caitlin Madin | Yes |
| Aims and Objectives | James | NA |
| Risk and Gantt Chart | Thomas | No |
| Research into Literature | Kiran | No |
| Project Plan | Caitlin | Yes |
| Start researching into backend | Chris | Yes |
| Appoint Lead | Caitlin | Yes |
| Contact supervisor | Caitlin | Yes |
| Create GitHub repository | Kiran | Yes |

*Weekly Objectives*

|  |  |
| --- | --- |
| ***Project Objectives*** | ***Completed by (name)*** |
| Create GitHub repository | Kiran |
| Finish Prospal | Caitlin |
| Aims and Objectives | Caitlin |
| Risk and Gantt Chart | Thomas |
| Research into Literature | Kiran |
| Start Design | James |
| Start backend | Chris |
| Contact supervisor | Caitlin |

Next Meeting: 18th February 2019 at 1900 INB

Monday 18th February 2019 – 1900 lasting approximate 1hour

Attendance

* Caitlin Madin
* Christopher Page
* James Cheek
* Shivam Panday
* Thomas Keady
* Kiran Thomasson

Discussed:

* Finalised Project proposal
* Discussed contribution
* Worked on backend / front

*Objectives from previous meeting*

|  |  |  |
| --- | --- | --- |
| ***Project Objectives*** | ***Completed by (name)*** | ***Achieved*** |
| Create GitHub repository | Kiran | Yes |
| Finish Prospal | Caitlin | Yes |
| Aims and Objectives | Caitlin | Yes |
| Risk and Gantt Chart | Thomas | Yes |
| Research into Literature | Kiran | Yes |
| Start Design | James | Yes |
| Start backend | Chris / Kiran / Shivam | Yes |
| Contact supervisor | Caitlin | Yes |

*Weekly Objectives*

|  |  |
| --- | --- |
| ***Project Objectives*** | ***Completed by (name)*** |
| Finish Prospal | Caitlin |
| Database ER | Kiran |
| Ajax | Chris |
| Pages | James |
| Normalisation | Thomas |
| PHPmyadmin | Shivam |
| Contact supervisor | Caitlin |

Next Meeting: 25th February 2019 at 1900 INB