

Team 07 Report

Part I

Arshad Chati

Calin Corcimar
Rowan Murphy

Jack Humphrey
Thomas Woolhouse

Adam Hutton

November 2022

Contents

Contributions	3
Arshad Chati	3
Calin Corcimararu	3
Jack Humphrey	4
Adam Hutton	4
Rowan Murphy	4
Thomas Woolhouse	5
Requirements	6
1. Log in / Registration requirements.	6
2. Registration Page Requirements & Registration Requirements.	6
3. User requirements	6
4. Team leader requirements	6
5. Project Manager requirements	6
6. Productivity Management requirements	7
7. Task requirements	7
8. Project requirements	7
9. Project Manager	7
10. Manager dashboard requirements	8
11. Knowledge Management requirements	8
12. Client requirements	8
13. System Requirements	8
Class diagrams of the System	9

Contributions

Below you can find every member's contribution to Part 1 of this module's coursework.

Arshad Chati

- System Design
 - Login/Registration
 - * Created Login and Registration designs on Figma as a basis for the rest of the team to begin implementing front-end elements.
 - Productivity Management Sub-system
 - * Created designs for the productivity management sub-system including different views based on user rank, taking into consideration all features and functionalities and ensuring designs are available for them.
 - * Designed all 'dashboards' and the kanban board used across the site which served as a starting point for further design by other team members during implementation.
 - Knowledge Management Sub-system
 - * Designed the knowledge management sub-system with separate designs for the search page, results page, post page, edit post page and more.
 - Mobile Views
 - * Designed basic mobile views as a template for the team to implement mobile first development to produce a more responsive site.
- Re-design based on client communications
 - Responsible for taking client feedback and re-working existing designs to meet their needs or replacing some designs entirely with new ones.
- Part One Presentation
 - Joint responsibility in creating the prototype presentation for the client.
 - Ensuring all relevant information is included, working on timing and ensuring information is kept concise yet informative.

Calin Corcimaru

- Requirements document
 - Gathered and documented the project's requirements from the specification letter and subsequent communications with Client representatives.
 - Delivered constant updates to the requirements document for maintaining current and adding new requirements.
- Project page
 - Developed the Project page and its elements that dynamically displays information based on the Project id.
 - Implemented functionality that allows Managers to assign tasks to users when creating a new task.
 - Developed a filter that allowed the system to display tasks on the page based on User's rank.
- Client page
 - Modeled the Client page that dynamically displays all the client information based on the Client id.
- Communications with Client
 - Clarified requirements by sending messages and reminders to the Client.
 - Drafted some of the emails and messages that were then sent to the Client.
- Leadership
 - Coordinated the team (planning, task allocation, decision making, etc) during meetings and other channels of communications (WhatsApp, etc).
 - Ensured the team is on track with task progression and deadlines.
- Report
 - Handled the writing, editing and publishing of the report.

Jack Humphrey

- Communication with clients
 - Completed the majority of communication with the clients. This involved drafting questions, sending questions and updating our own document with our questions and the clients responses.
- User view page
 - Responsible for creating the user view page. This is a page for users to see information about other users in the system.
- User edit page
 - Responsible for creating the user edit page. This is a page for users to edit their own account information (such as password).
- Login page draft
 - Created an initial draft of the login page which was then reworked by Rowan.

Adam Hutton

- Created the Dashboard/Task view
 - Including the 'Kanban' section reused elsewhere.
- Created the Manager's Dashboard
- Developed ways of displaying progress to the user, including the horizontal progress bar, and the 'spinner' one used in the project page
- Created the navigation, reworked it to work on mobile
- Created the base css used everywhere in the project
 - Including the card and title styles, navigation and ensuring that the designs are consistent and responsive throughout the website.
- Contributed to the requirements document, helping to reword/rewrite requirements to aid in conciseness and reduce ambiguity

Rowan Murphy

- Built and developed Login and registration pages
 - Created the front of the registration page from scratch and expanded on Jacks' initial draft of the login page.
- Search and parts of search results page
 - Created the search page elements to be used over a number of pages.
 - Used these elements to make the pages responsive and easy to use. Positioned them accordingly to aid in design and the flow of the pages.
- Checked through code and caught bugs and features that people missed
 - Proof reading code and caught some issues such as a button missing function.
 - Also discovered bugs with certain elements of data usage etc.
- Partook in decisions regarding the project and creation of requirements
 - Assisted in creating the initial requirements draft to give a basis of what the project aimed to do.
 - Provided opinions and feedback to make the best decisions when designing, creating and building the project as well as suggesting changes etc. to offer alternative solutions and a different approach to problems in development where there were multiple viable answers.

Thomas Woolhouse

- Designing Class Diagrams
 - Modelled the system as a diagram.
 - Modelled the system in JavaScript classes.
- Designed and Created the API (Application Programming Interface)
 - Created a consistent API to be reused throughout the project and make webpage elements reactive.
 - Implemented a schemeless database.
 - Curated a custom serialisation system to allow for content parity between individual webpages.
- Login
 - Developed functionality that enables the user to login and will stay logged in for the duration of the session.
 - Additionally implemented the function to have the user log out from anywhere within the system.
 - Also added functionality to keep track of the current logged-in user.
- Posts
 - Implemented all pages related to creating, viewing, editing.
 - Integrated an external API into the system to convert between Markdown and HTML.
 - Introduced the ability to search through posts in the system based on a search query as well as filter them by topics.
 - Added functionality to create a new topic.
- Dashboard & Kanban
 - Ensuring the kanban on the dashboard and the project page are consistent.
 - Coded the system for dividing a task into multiple subtasks.
 - Integrated functionality allowing users to be assigned to task.
 - Designed and created the ability to display an employee's current workload on both the manager and project page.
- Other Contributions
 - Developed the code and interactivity to create clients within the system.
 - Contributed to team's knowledge of both CSS and JavaScript, leading them to progress throughout more of the project and supporting them in that.

Requirements

Requirements are taken from the client specification letter unless stated otherwise by a footnote.

1. Log in / Registration requirements.

1. A user **must** be able to login to the system using their work email and password.
2. The email address used for logging in **must** be using the @make-it-all.co.uk domain.
3. A user **must** be registered in order to log in to the system.

2. Registration Page Requirements & Registration Requirements.

1. The system **must** allow existing users to invite new users to register to the system using their work email.
2. A member of staff **must** be able to register only one account in the system.
3. The email address used for registering **must** be using the @make-it-all.co.uk domain.
4. The password used for registering **must** be at least 12 characters long and contain a combination of at least one uppercase letter, one lowercase letter, a number, and a special character (!@#\$%^&*).¹
5. A confirmation email **could** be sent out to the email address used for registration to check for a valid email.²

3. User requirements

1. The system **must** allow a user to have at least one of the following roles: Employee, Team leader or Project Manager.
2. The system **must** allow a user to have different permissions dependant on their currently assigned role.³
3. A user **must** be able to be assigned to a project.⁴
4. A user **must** be able to work on any number of projects.⁵
5. A user **must** be able to create a private task for their private to-do list.⁶

4. Team leader requirements

1. A team **must** have a team leader.
2. The system **must** allow any user to be a team leader.³
3. The system **must** allow a user to be a team leader for multiple projects.³
4. A team leader **must** be able to manage the members of their team (add, remove).³
5. A team leader **must** be able to assign tasks to users in their team.⁷
6. A team leader **must** be able to create tasks for a project they supervise.³
7. A team leader **must** be able to track task progress of a project.

5. Project Manager requirements

1. A project manager **must** be able to manage all the projects in the system.³
2. A project manager **must** be able to add tasks to any current project.³
3. A project manager **must** be able to assign users to project tasks.³
4. A project manager **must** be able to create a new project.³
5. A project manager **must** be able to assign users to a team.³

¹04/11/2022 <https://learn.lboro.ac.uk/mod/forum/discuss.php?d=358985>

²04/11/2022 <https://learn.lboro.ac.uk/mod/forum/discuss.php?d=358983#p554513>

³04/11/2022 <https://learn.lboro.ac.uk/mod/forum/discuss.php?d=355151#p554145>

⁴22/10/2022 <https://learn.lboro.ac.uk/mod/forum/discuss.php?d=355047>

⁵22/10/2022 <https://learn.lboro.ac.uk/mod/forum/discuss.php?d=355049>

⁶22/10/2022 <https://learn.lboro.ac.uk/mod/forum/discuss.php?d=355053#p549541>

⁷22/10/2022 <https://learn.lboro.ac.uk/mod/forum/discuss.php?d=355075#p549565>

6. Productivity Management requirements

1. A user **must** have access to their private to-do list, which is a user's personal to-do list containing tasks that are not related to any Projects.⁶
2. A user **must** have access to their personal dashboard, which will contain task they are assigned to from Projects they are working on and their own private todo list.
3. The board **must** have columns in the 'Kanban' view that tasks can be placed in.⁸
4. The system **should** allow users to switch between a Kanban and 'to-do list' view.⁸

7. Task requirements

1. A task **must** have a name that will be displayed.
2. A task **should** have a description.
3. A task **must** have a date for a deadline.⁹
4. A task **must** have an estimated number of worker-hours needed to complete the task.¹⁰
5. A task **should** have the option of being divided into smaller sub-tasks. A sub-task is a task, that the parent tasks depends on.¹⁰
6. If a task has sub-tasks, then its worker-hours **should** be calculated as a sum of the worker-hours of the smaller tasks.¹⁰
7. A task **must** be able to display the current state it is in. (To-Do, In Progress, Complete).¹⁰
8. A task with subtasks **should** display the percentage of sub-tasks that are completed.¹⁰
9. A task **should** be able to be categorized as either a Project-specific (select which Project) or private task (not related to any project).⁶
10. The system **should** allow a Project Manager/Team leader to modify and re-assign a Task.¹¹
11. The system **could** allow a Sub-Task to be divided into multiple Sub-Tasks.¹⁰

8. Project requirements

1. A Project **must** have a title.¹²
2. A Project **should** have a description.
3. A Project **must** have a date for a deadline.¹³
4. A Project **must** have a progress displayed, which is measured by the percentage of tasks completed.¹⁴
5. A Project **must** have a client.¹²
6. A Project **must** have a team assigned to it.⁴
7. The system **should** allow a user to view the team members of their Project.
8. The system **should** allow a user to view their assigned tasks if they are part of a Project.
9. The system **must** allow a Project to be created by a Manager.³

9. Project Manager

1. The project manager **should** be able to access and manage any Project details from their dashboard.¹⁵
2. The system **should** allow a project manager to manage teams and users that are assigned to any Project.¹⁶

⁸14/10/2022 <https://learn.lboro.ac.uk/mod/forum/discuss.php?d=356809>

⁹22/10/2022 <https://learn.lboro.ac.uk/mod/forum/discuss.php?d=355045#p549487>

¹⁰22/10/2022 <https://learn.lboro.ac.uk/mod/forum/discuss.php?d=355051#p549539>

¹¹04/11/2022 <https://learn.lboro.ac.uk/mod/forum/discuss.php?d=359721#p554115>

¹²22/10/2022 <https://learn.lboro.ac.uk/mod/forum/discuss.php?d=355047#p549501>

¹³22/10/2022 <https://learn.lboro.ac.uk/mod/forum/discuss.php?d=355067#p549557>

¹⁴22/10/2022 <https://learn.lboro.ac.uk/mod/forum/discuss.php?d=355063#p549553>

¹⁵13/10/2022 <https://learn.lboro.ac.uk/mod/forum/discuss.php?d=355039#p546189>

¹⁶22/10/2022 <https://learn.lboro.ac.uk/mod/forum/discuss.php?d=355151#p549485>

10. Manager dashboard requirements

1. The manager dashboard **should** allow a team leader or project manager be able to see how many tasks and total worker-hours a user currently has assigned.
2. The manager dashboard **should** display a warning to a Project Manager/Team Leader if a user's assigned effort load exceeds 37.5 worker hours per week.¹⁷
3. The Project tasks **could** be able to be filtered based on Project or team member assigned to it.
4. A Project **should** display whether it is sufficiently resourced. This is determined based on the sum of worker-hours required by its tasks, the number of workers assigned (and their daily work capacity) and the Project's deadline.¹⁷
5. The manager dashboard **could** display a warning to a Project Manager/Team Leader if the project is expected to fall behind the deadline, based on worker hours.
6. A manager/team leader **could** be warned that an employee needs training if they are behind a deadline or having trouble working on a specific task.¹⁸

11. Knowledge Management requirements

1. The system **must** allow a user to create a new post.
2. The knowledge management subsystem **must** have a search functionality where a User can search Posts by specific Topics.¹⁹
3. Posts **must** be viewable by all users by default.²⁰
4. The system **could** allow to change the permissions of accessing specific Posts only by an employee with certain permissions.}
5. Posts **must** only be able to be edited by a Manager or the User who has created it.²¹
6. The subsystem **could** contain a FAQ page.¹⁹
7. The subsystem **should** offer users a way to contact author of post for specific questions.¹⁹
8. A Post **must** only have 1 topic assigned to it.²²
9. The system **must** allow a Topic have multiple Posts.²²

12. Client requirements

1. A Client **must** have key information including Company name, Client Representative, Office Address, and Contact Information.²³
2. The system **must** allow a new Client to be added.

13. System Requirements

1. The system **must** have a responsive design that will cater for different platforms and screen sizes.²⁴
2. The system **must** be able to be accessed 24 hours a day.
3. A user **should** be directed to the employee dashboard after logging in.
4. The system **could** be accessed via a dedicated web address.
5. The system **must** follow the GDPR regulations.

¹⁷04/11/2022 <https://learn.lboro.ac.uk/mod/forum/discuss.php?d=355067#p554135>

¹⁸22/10/2022 <https://learn.lboro.ac.uk/mod/forum/discuss.php?d=355071#p549561>

¹⁹24/10/2022 <https://learn.lboro.ac.uk/mod/forum/discuss.php?d=357789#p550055>

²⁰22/10/2022 <https://learn.lboro.ac.uk/mod/forum/discuss.php?d=355057#p549547>

²¹22/10/2022 <https://learn.lboro.ac.uk/mod/forum/discuss.php?d=355055#p549545>

²²22/10/2022 <https://learn.lboro.ac.uk/mod/forum/discuss.php?d=355043#p549491>

²³24/10/2022 <https://learn.lboro.ac.uk/mod/forum/discuss.php?d=355047#p550039>

²⁴11/10/2022 <https://learn.lboro.ac.uk/mod/forum/discuss.php?d=355077#p545293>

Class diagrams of the System

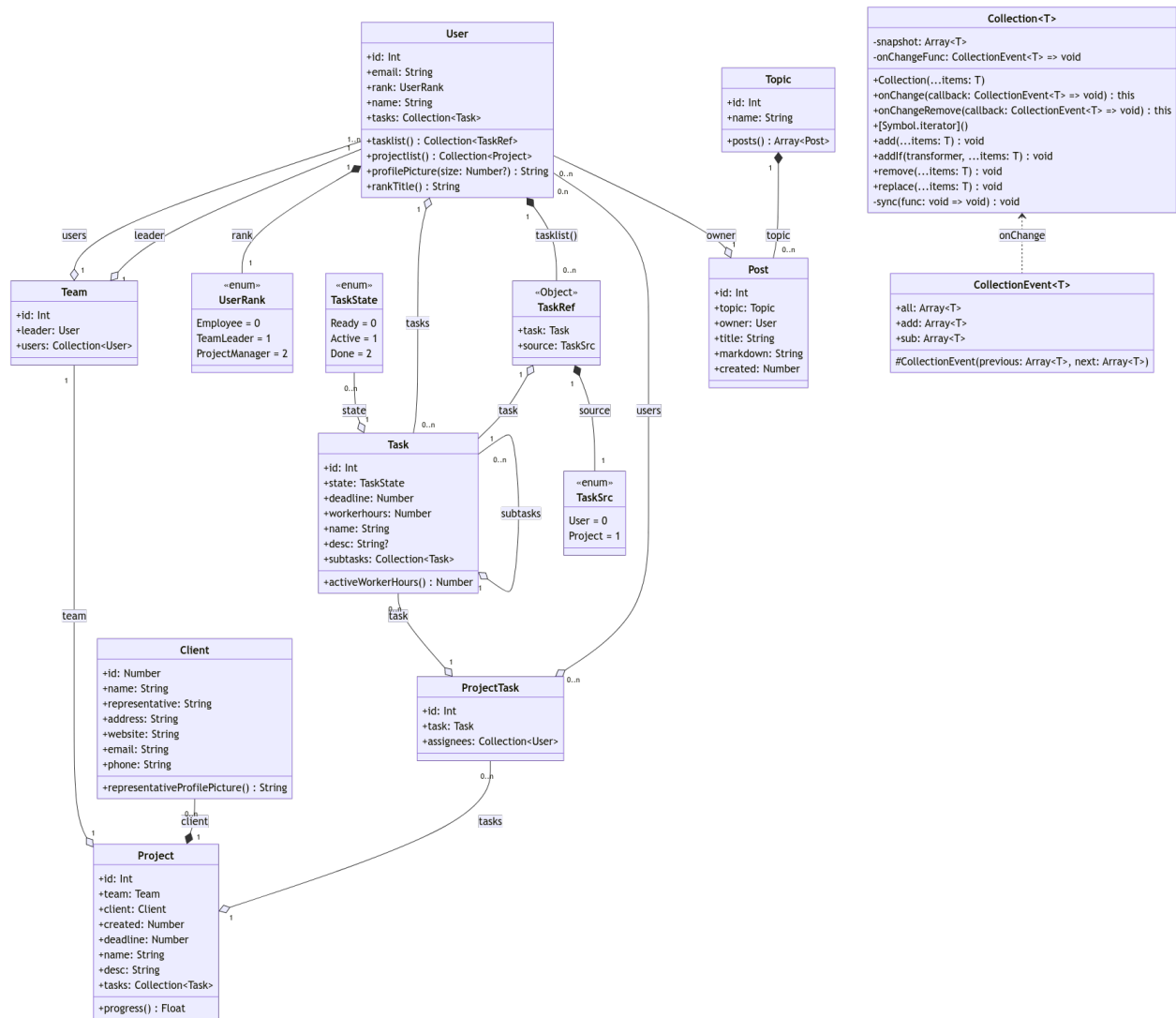


Figure 1: Class Diagram