PROJECT PLAN

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https://git.fhict.nl/I491992/student-housing

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Project definition:

Team members

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Fontys R10 Building

2 more to be added with Andrei and Bogdan

Stakeholders

Client: Student housing BV

Student housing BV is the firm that has hired our team in order to develop a solution that would suit their needs and solve the problems a student house could encounter.

Coordinators: John Wijnen, Maaike van Doren

Mr Wijnen and Mrs van Doren are both in charge of coordinating and monitoring the development of the project.

End-users

The company Student Housing BV, as well as its employees and tenants who are housed at the respective company, will be the end-users of our platform.

Project goal

Our project is intended to provide a dependable and simple solution to the most encountered student housing issues.

Project scope

To know what the boundaries of this project are, a good scope is needed. With a clear scope you'll know which goals and project deliverables will be worked towards. With this, hitting the goals is ensured and there won't be any delay or overwork. Our scope is to improve the division of tasks between the tenants by creating a clean and well organised environment inside the student house.

Way of working

Our group consists of three members. We want to work all equally and share our solutions and even problems, we want to deliver our part on time and also notify the coordinators if an external dependency arises. Every week we will schedule meetings with one of the project coordinators.

Problem definition

Student Housing BV provides accommodation for students in the Netherlands who are pursuing a bachelor's or master's degree.

On each floor, there are personal rooms and shared facilities (kitchen, toilet, bathroom, living room, etc.).

Many issues have arisen in the housing system over the years.

Typically, problems are associated with:

- Appointed persons not cleaning the shared facilities.
- Groceries are not done or paid for shared items such as toilet paper, dish soap, etc.
- Garbage disposal is not done on time
- Unannounced parties, gatherings, etc.
- Students cannot effectively file a complaint or distribute tasks in an efficient manner

Typically, tenants disregard or ignore their cleaning duties since the facilities are shared with the whole house and it should be everybody's duty to clean and maintain the shared areas in a good condition.

Even though everyone uses the shared items, it might be difficult for some students to pay for them due to personal reasons or they simply forget to do so.

Not taking out the trash may be the biggest concern because some tenants refuse taking out the trash. If it isn't disposed of on time, it will start to stink and there will be less storage available.

Finding a balance between studying and having fun will be difficult. Since it's a company that offers student housing, tenants will want to study as well as hang out with their friends.

Deliverables:

The solutions we came up with are not only going to solve the problems, but also improve the user experience. The features are ranked by the MoSCoW method.

Must have:

- **Log in/Sign in system** – the user can log in with ease as he receives the login credentials from the system admin.
- **Data manipulation using simple** – create, read, update, delete statements.
- **Notification system** – informs the user about anything that he might have missed so that the user is up to date anytime.
- **Guidelines/Rules** – the system admin creates and sets a list of rules so that everyone has to respect the same rules.

- **Turn-based tasks** – tasks are not done frequently, but instead people do them in turns. Some cleaning tasks must be done only once before moving on to the next person.

- **Shared items** – Everyone in the student house has to pay for 2 sets of shared items. Buying each item is based on turn.

- **Agreements made between tenants** – on this page students can make an agreement with a selected user(s). When an agreement is proposed with a selected user(s) the selected user(s) can accept/reject the agreements, the agreements can also be deleted or edited by the user who made them. For example if someone wants to throw a party the other users will be notified about this fact and the party can be cancelled if someone declines the agreement.

- **Apartment security system** – If a student fails to authorise 3 times in a row, the system admin will come and take a look. In case the door is locked, but open - we notify the admin again. This is possible if either the chip or the reader are broken. In the worst case if someone is trying to break into the house.

Should have:

- **Report technical issues** – write out the problem and upload proof to be forwarded to the firm so that they can send someone to resolve it.)

- **File a complaint** – submit a formal complaint (for example regarding tenants).

- **Event planner** – The organisation may arrange when an employee will arrive and when someone will be dispatched, and users can view those schedules.

- **Smart lights –** The automatically dimmable lights will turn on as you enter the room. The default mode of the light system is 'ambient'. That means that the lights get brighter as the light sensor is exposed to less light and the lights get dimmer as the room gets more natural light. The light system also has a second and third mode. The 2nd mode is 'party'. When in party mode the lights blink in intricate patterns. The third mode is 'manual' and it's self-explanatory. The user will be able to manually dim or brighten the lights on demand.

- **Easy-to-use app –** any user is capable of understanding how the app works just by looking at the interface.

- **Persisted data** – the received data should be stored in a file (for example csv).

Could have:

- **Favour system** – everybody gets several favours, you give one to the person that's doing you a favour, it goes the other way around too.

- **Responsive interface –** visual and audio feedback when the user interacts with the app.

- **User inactivity** – the user is logged off after a specific period of not interacting with the system.

- **Authentification** – The student can register and check in with their fingerprint. Their information will be stored in a database. We also take note once they check out.

Will not have:

- **Access to the internet**

- **Databases(maybe)**

Communication plan

Various tools will be used to communicate and share information within the team. They are as follows:

Tool	Purpose	Frequency of usage
WhatsApp	Group chat and direct messaging	Daily
GitLab	Version control	Daily
Trello	Task management	Daily
Outlook	Scheduling appointment with important stakeholders	On business days
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We are going to meet on a weekly basis. Tutors are to be seen weekly on business days.

Planning:

This the plan that we made having in mind that we have **5 weeks in total of** coding:

First two weeks are crucial since they contain the features that have the utmost importance. In the 3rd and 4th week we are focusing on the remaining features with the fifth we target to add the finishing touches.

Week	Task Name	Duration	Start	ETA
1	Form design	7 days	25.04.22	1.06.22
	Log in/ create account	3 days	25.04.22	28.04.22
	Turn-based tasks	2 day	27.04.22	28.04.22
	Shared items	3 days	29.04.22	1.05.22
2	Guidelines/Rules	2 days	2.05.22	3.05.22
	Report techinacal issues	2 days	3.05.22	4.05.22
	File a complaint	2 days	5.05.22	6.05.22
	Event scheduler	3 days	5.05.22	7.05.22
	Improve previous tasks	3 days	5.05.22	7.05.22
	Improve the design lastly	1 days	8.05.22	8.05.22
3	User inactivity	3 days	9.05.22	12.05.22
	Agreements made between tenants	3 days	10.05.22	13.05.22
	Start researching finger print sensor	7 day	9.05.22	16.05.22
	Favour system	3 days	11.05.22	13.05.22
	Notification system	2 days	15.05.22	16.05.22
4	Persisting data	4 days	17.05.22	20.05.22
	Finish finger print sensor	2 days	18.05.22	19.05.22
	Admin page	3 day	19.05.22	21.05.22
	Debugging/testing	3 days	21.05.22	23.05.22
5	Security system	2 days	24.05.22	25.05.22
	Perfecting the previous tasks	5 days	24.05.22	28.05.22
	Interactive interface	2 days	25.05.22	26.05.22
	Smart lights	3 days	24.05.22	26.05.22
	Tasks fallen behind schedule	start to end	25.04.22	26.05.22

Notes:

Research should be done whenever it is possible to be easier for the unknown features to implement.

One-two team member/s is/are supposed to start researching for the fingerprint sensor whenever possible.

By focusing on the main tasks in the first weeks we have the chance to solve upcoming difficulties that may occur while working on those.

We should leave the last weeks for finishing touch and improving the tasks.

If someone is done with their task before the planned schedule they should start working ahead for the next week's task or help others that have difficulties with their work.

Risk management:

A project's progress can be hindered for many reasons, of which the human factor is to be considered the most unpredictable. The table below reveals all the solutions to mitigate potential risks. Also, the risks evaluated by priority and impact:

Risks	Solution	Priority	Impact
Employees burn out	Flexible working hours	High	High
Getting sick	Report sick leave and recovery to the company doctor or safety agency	Medium	High
Communication problems	Using Git and other applications to share work and discuss it with the partners. Also reply in time	High	High
Low activity	Set award for the best employee of the month	Low	Medium

Dealing with issues on time in order to avoid dealing with bigger problems later.