Project Description

Names of Students:

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Michael Viuff

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Software Technology Engineering

Semester 1

22th October 2019

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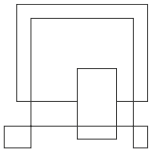


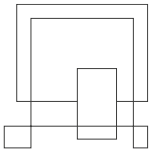
1. Background Description

This project is concerning the development of a system where examination plans can be implemented into a schedule over a three-week period. The customer, a Studies Administration Officer who will be responsible for scheduling examinations, will be the sole user of the system. This makes him or her the target audience.

The current way of scheduling examinations is through pdf files, where the exam planner must download and change the properties of the pdf files each time a change must be made as seen in the pdf VIA University College., 2019. Re-examination plan August 2019-Sept-2019 – ICT for students (Studienet.dk., 2019). This method is cumbersome and inefficient as it does not allow certain conditions to be programmed in. For example, a student should not have consecutive days of examinations. This would have to be manually checked by the planner for each student. As students in higher semester will have varying courses, this method of planning examinations gets increasingly more difficult. So, a more efficient way of scheduling examinations is called for.

2. Purpose

The purpose of the project is to make a program that will create a timetable for examinations that will help the exam planner to make exam plans with ease.



3. Problem Statement

Exam planner is generating pdf version of schedule, that needs to be downloaded and is not lively updated. Current system is problematic because errors can be made easily, and it is inefficient. There are several sub-questions connected to main problem:

- Which information are necessary to make a schedule?
- What is required for any particular exam?
- How should the students be registered?
- How to spread out the exams so that no one student will have consecutive days of examinations?

4. Delimitations

There are some delimitations in this project. These delimitations are not implemented in the project due to specifications from the customer and possessing lower importance while remaining relevant.

1. No grade system will be implemented.
2. No notification system for students or teachers will be implemented.
3. There will be no focus on any other programs beyond the engineering programs offered in VIA University College.

4. The system will not require a server.

5. Methodology

The methodology that will be used for this project will be the waterfall method. A blog published by Airbrake says that the waterfall model emphasizes that a logical progression of steps be taken throughout the software development life cycle, much like the cascading steps down an incremental waterfall (Powell-Morse, 2016).

There are six stages in the waterfall method as seen in the following diagram.

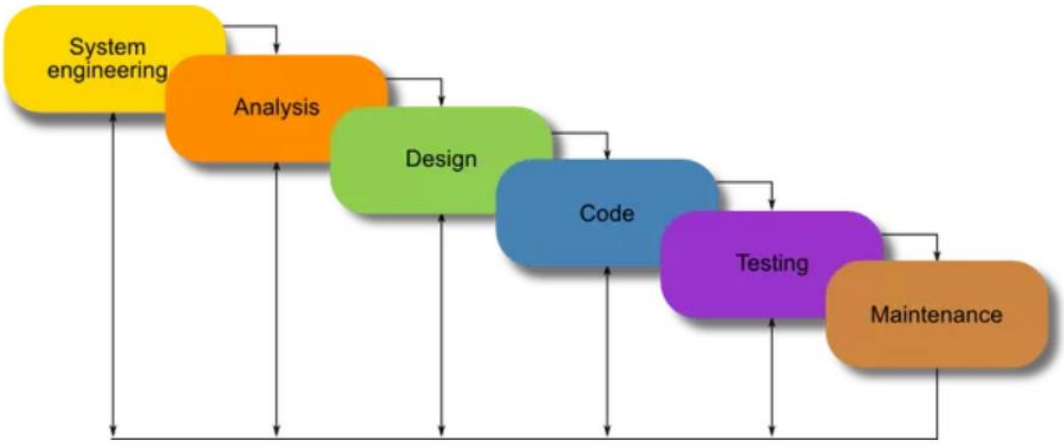
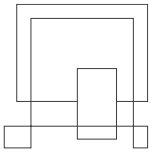


Figure (1): A diagram visualizing the waterfall model (Airbrake.io, 2016).

System engineering is the initial stage of this model. This is where the problem is defined, and potential requirements are analysed.



Analysis stage is where appropriate models and logics are chosen to be implemented in the program.

Design stage is about the technical design requirements. For example, the appropriate programming language, services and more.

Code stage is the culmination of the previous stages. Implementation of the models, logics and designs will be made.

Testing stage is done after the coding stage is complete. This is to check for errors and issues with the program.

Maintenance is where the code is kept up to date. This is not that relevant for this project as this project does not require any maintenance.

6. Time Schedule

The time schedule is created based on the methodology. All of these dates are in the year 2019.

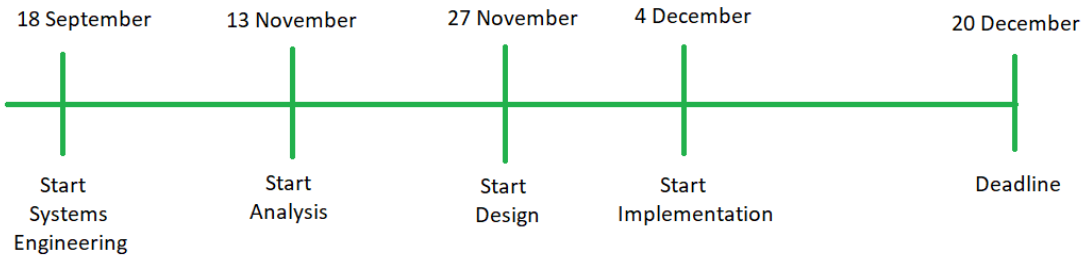
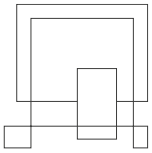


Figure (2): A diagram of the planned time schedule made by the group.



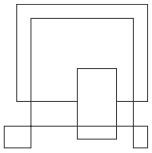
The system engineering phase is given the most amount of time to work with. This is where the problem will be understood thoroughly, requirements for the program will determined, and documentations of the problem and requirements will be made.

The analysis phase starts approximately one and a half months after the system engineering., and shortly after that the designing phase will commence.

One the 4th of December, the implementation will start. This phase includes the coding, testing and maintenance stages.

7. Risk Assessment

Risks	**Likelihood Scale:1-5 5 = high risk**	**Severity Scale:1-5 5 = high risk**	**Product of likelihood and severity**	**Risk mitigation**	**Identifiers**	**Responsible**
Invigilator does not turn up	2	4	8	Code in a possible step where a backup invigilator can be chosen by the exam planner	The invigilator does not show up	Patrik Horny
Inputting rooms where certain requirements are not met. (HDMI, VGA, capacity)	3	4	12	Pre implement the possible rooms for exams	The requirements are not to be found in the rooms	Jan Vasilcenko
Repeating students' names or student number while planning	3	3	9	Write a program that will throw an exception	Confusing and wrong timetable for affected students	Karrtiigehyen



Tables and chairs not placed in classrooms	2	5	10	Warn them a few days in advance	Absence of tables and chairs in rooms	Nicolas Popal

Table(1):A table showcasing the possible risks, made by the group.

8. Sources of Information

1. VIA University College., 2019. Re-examination plan August 2019-Sept-2019 – ICT for students. [pdf] Denmark: VIA University College. Available at:<https://studienet.via.dk/sites/uddannelse/ict/Horsens/exam/Documents/Reexamination%20plan%20August%202019-Sept%202019%20-%20ICT%20for%20students.pdf > [Accessed 21 October 2019].
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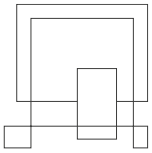
3. [Waterfall Model] n.d. [image online] Available at: <https://airbrake.io/blog/sdlc/waterfall-model> [Accessed 21 October 2019].



Appendix

Group 9

Group Name (optional): Date: **7/10/2019**

Group 9 with team leader

Bob

These are the terms of group conduct and cooperation that we agree on as a team.

Participation: We agree to....
Actively participate in all the assignments and project works, which are assigned to us.

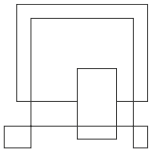
Communication: We agree to...
Honestly and openly communicate with each other without any prejudice. Inform other group members if something is not clear, so they could help us.

Meetings: We agree to....
Meet on our discussed time. If the person is not present, he is obligated to inform the other group members of his absence.

Conduct: We agree to....
Be on time, be active, be prepared for the meetings. Listen to the others group members opinions and respect it.

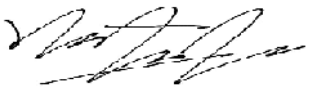
Conflict: We agree to....
Talk about it and solve it, so every group member is satisfied.

Deadlines: We agree to....
Hand in our assignments in time. Don’t start to work on the projects at the last minute.



Other Issues:

Don't be a Bob.

Group member's name	Student number	Signature
Karrtiigehevn Veerappa	293076	
Jan Vasilcenko	293098	
Nicolas Popal	279190	
Patrik Horny	293112