Presented by: Herd Immunity

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Project plan

Herd Immunity simulation

Version 2.0

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# Formal Client



**Mr. Johnson**

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# Members

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# Version Control

| Version | Description | Distribution date |
| --- | --- | --- |
| 1.0 | First version of project plan | 22.02.2018 |
| 2.0 | Second version of project plan | 28.02.2018 |
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# Document Introduction

This Project Plan document contains the Problem Statement for the conception of the project and the Project Phasing for designing and developing “Herd Immunity” simulation software by the mentioned project members.

# Communication Plan

## Stakeholders

The manager of SIM Software, Mr. Johnson is our stakeholder

Contact information  
Email: c.kuah@fontys.nl   
Phone number: ​+31 885074156

In order to be able to start working on the project, the project proposal should first be accepted by Mr. Jonson.

Mr. Jonson should be informed about the project process at the end of every iteration. Furthermore, Mr. Jonson can decide whether the design of the application or the application behavior are acceptable or not. If not, we take into consideration further modification.

In order to communicate with Mr. Jonson, we consider sending an invitation for a meeting or sending documents that will be via email.

## Meetings

Meetings with Mr. Johnson will take place after every iteration. If there is needed an extra meeting, we will get in contact with Mr. Johnson for a further schedule.

## Participants And Collaboration

Two types of meeting will take place. One will be with the stakeholder and then one will be with the group members to give feedback and discuss the work. The members participating in the meetings are the team members which are working on the project. During the meeting with the stakeholder, the minute taker will be taking the minutes of the meeting and these minutes will be sent to the respective people within 24 hours after the meeting. An extra meeting can be scheduled if ever needed and weekly agenda will be sent via email where communication will also take place.

# Project Introduction

Our idea is to make a herd simulation program that will be able to showcase various effects of herd immunity and ability to customize and re-simulate. There will be a variety of options ranging from assigning individual statistics to vaccine and disease creation.

# Problem Statement

In this chapter we state the situation and other variables that brought the conception of this project. Included, is a description for the current situation of the client’s company and its current problem, as well as the goals of the project along with the listed deliverables & non-deliverables, followed by risks & constraints related to the project’s lifetime.

## Current Situation

SIM Software Inc. is a company that aims for creating innovative simulation solutions. SIM Software has only focused on very specific type of simulation software in the past and they would now like to expand their expertise. This company has requested us to present a simulation software idea proposal in the area that would differ from their current focus.

## Problem Description

SIM Software Inc. has only dealt with traffic simulation software past few years. They would like to broaden their area of expertise, but they do not have much experience outside of this expertise. This software needs to simulate situations based on real world events, and the project idea has to be considered innovative to be accepted.

## Project Goals

The goal of the project is to create a simulation software that could be presented as useful to the government and/or medical companies in order to assist information campaigns, test how a disease could affect a population with current vaccination levels and help them decide whether vaccination should be encouraged or perhaps even mandatory.

## Project Deliverables And Non-Deliverables

### Deliverables

* Herd immunity simulation software
* Project Plan
* User guide of the software
* Source code of the entire project in a zip file
* Work division plan
* User Requirement Specification
* Process report
* Plan for iteration 1
* Plan for iteration 2
* Plan for iteration 3
* Test Report

### Non-Deliverables

* Mobile version of the application

## Project Constraints

**Constraint 1: Project Deadline**

* The project must be finalized by the end of week 3 of Iteration 3 in the Project Phasing.

**Constraint 2: Software language.**

* As English is the common language for project members it will be the chosen language used in this application and corresponding documentations.

**Constraint 3: Operating System**

* We will provide an application that was developed on computers running Windows 10 made to run on Windows 10.

**Constraint 4: Object-Oriented Programming language**

* The application will be developed in an object-oriented language (C#).

## Project Risks

In the process of development there might exist some risks, but for every risk we have plan on how to avoid them and even if it happens we know how to deal with it:

**Risk 1: Application not running on old version of Windows**

Probability: Low.

Impact on project: Low.

Effect: People with an old OS will not be able to run the application.

Prevention: Add requirements in a file with the application.

**Risk 2: Work is not done on time.**

Probability: Low.

Impact on project: Medium.

Effect: Not satisfactory for Mr. Johnson.

Prevention: in order to avoid this risk, it is needed to state deadlines to the client only after estimation of actual workload and time needed in order to be on time with our promises and will finish on time or even earlier. If we miss it, we will work overtime to compensate.

**Risk 3: Delivery of the final product is delayed after testing**

Probability: Medium.

Impact on project: Medium.

Effect: delivery delay.

Prevention: Clearly understand what is needed for the requirements.

# Project Phasing

In this Project Phasing chapter, we present and describe phases throughout this project’s lifetime along with included activities & deliverables for the corresponding phase. A diagram figure is to be included which presents a visual overview of the project phases and their activities, along with the set milestones.

A screenshot of a cell phone

Description generated with very high confidence

## Phase 1: Kick-Off

Expected time frame: End of week 2 (23.02.2018) from start of this semester.

In this phase we need to decide on simulation project, make a concept User Requirement Specification and finish our Project Plan.

**Activities:**

* Come up with project proposal
* Interview with Mr. Johnson
* Research on our project proposal for simulation
* Create a project plan
* Create concept version of User Requirement Specification

**Deliverables:**

* Proposal for an application
* Project plan
* Concept version of User Requirement Specification

## Phase 2: Initial Phase

Expected time frame: End of week 4 (09.03.2018) from start of this semester.

In this phase we are going to focus on updating User Requirement Specification and make our plan for Iteration 1, also the work division report will be done by them as well.

**Activities:**

* Discuss and update project plan
* Discuss and create plan for Iteration 1
* Discuss and update User Requirement Specification
* Discuss and divide work, based on that create also a work division report.

**Deliverables:**

* Updated of User Requirement Specification
* Work division report
* Plan for Iteration 1

## Phase 3: Iteration 1

Expected time frame: End of week 7 (30.03.2018) from start of this semester.

In this phase we are going to continue updating User Requirement Specification, start implementing and also make new document - design document, also test and report in the end. About the implementation we aim for the following - Initial simulations and templates in this phase we are going to develop our initial simulation system. It will be a proof of concept and will have the functionality to specify basic configuration on every aspect of the simulation: people, vaccine, virus and provide simple GUI.

**Activities:**

* Continue discussing and updating User Requirement Specification.
* Create, discuss and update design document.
* Create, discuss and update test plan
* Create, discuss and update plan for Iteration 2
* Start implementing our software solution and finish with proof of concept
* Test & Debug

**Deliverables:**

* Final version of URS
* Final version of Design document
* Final version of Test report
* Final version of Plan for iteration 2
* Source code of the proof of concept
* The proof of concept itself as an executable with configuration
* Updated version of work division report

## Phase 4: Iteration 2

Expected time frame: the end of week 4 from start of block 2 in this semester.

In this iteration we will focus on more customization for templates and better GUI. In this phase we will focus on adding more core functionalities for the simulation templates - providing the user with more options. Also, we will search for improvements on making a better GUI, so the software becomes easier to use and understand. In the end we should finish with a solution that we should be able to call it a prototype.

**Activities:**

* Discuss and update with missing and incorrect stuff from previous iteration documents.
* Create discuss and update plan for Iteration 3
* Implement new features for simulation.
* Discuss and update GUI.
* Test & Debug
* Get our project to become prototype.

**Deliverables:**

* Final version of Plan for iteration 3
* Updated versions of documents from previous phases.
* Source code of the prototype
* The prototype itself as an executable with configuration
* Updated version of work division report

## Phase 5: Iteration 3

Expected time frame: the end of week 7 from start of block 2 in this semester.

Final polishing of GUI and adding Environment. In this phase we will focus on finishing with a nice GUI and adding the 4th dimension of our simulation the environment. For example, how the weather that the people live in would affect the virus and vaccine. In the end we should finish with a solution that can be called a product.

**Activities:**

* Discuss and update with missing and incorrect stuff from previous iteration documents.
* Discuss and update GUI
* Implement 4th dimension of simulation - environment.
* Test & Debug
* Get our project to become a product.
* Create, discuss and update the process report

**Deliverables:**

* Source code of the product
* The product itself as an executable with configuration
* Final version of the process report
* Final version of work division report
* Updated versions of documents from previous phases.

## Phase 6: End Phase

Expected time frame: End of week 8 or 9 from start of block 2 in this semester.

In this phase we need to present our project.

**Activities:**

* Create and discuss presentation of our product

**Deliverables:**

* Presentation