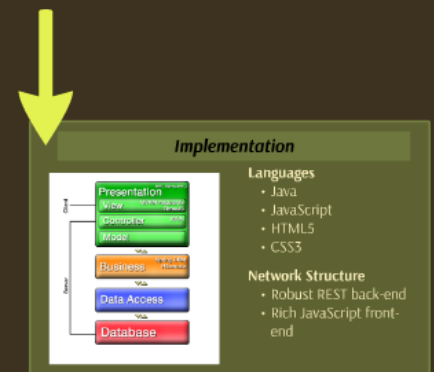
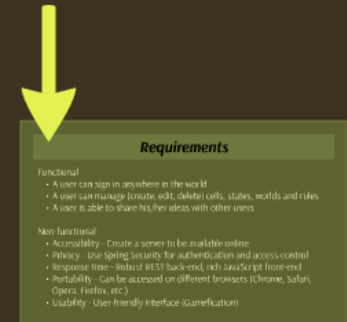
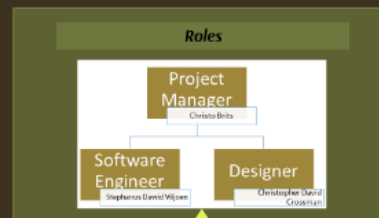
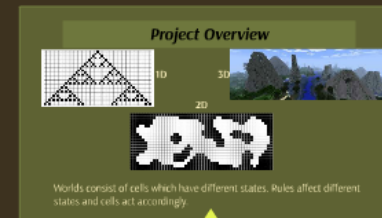
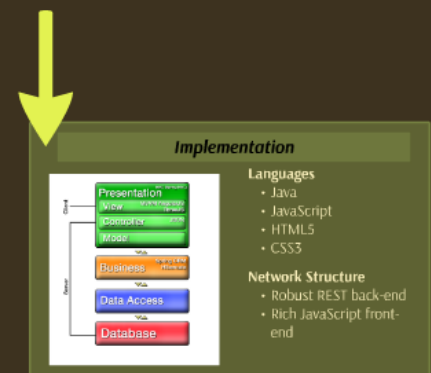
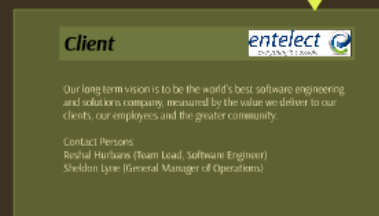
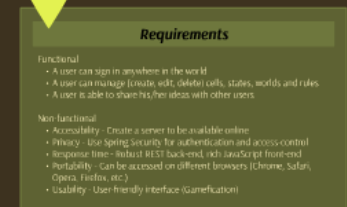
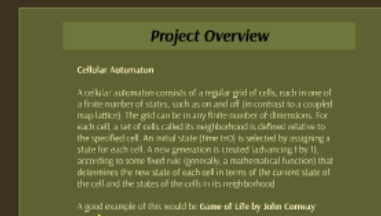
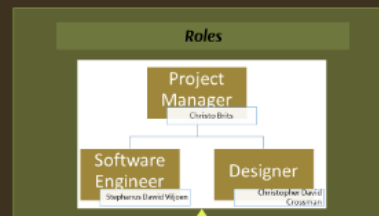
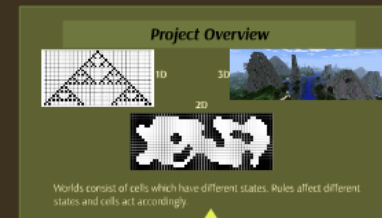


COS 301 Main Project



COS 301 Main Project



12TERA

Project Introduction

Team Members



Christo Brits
11080923

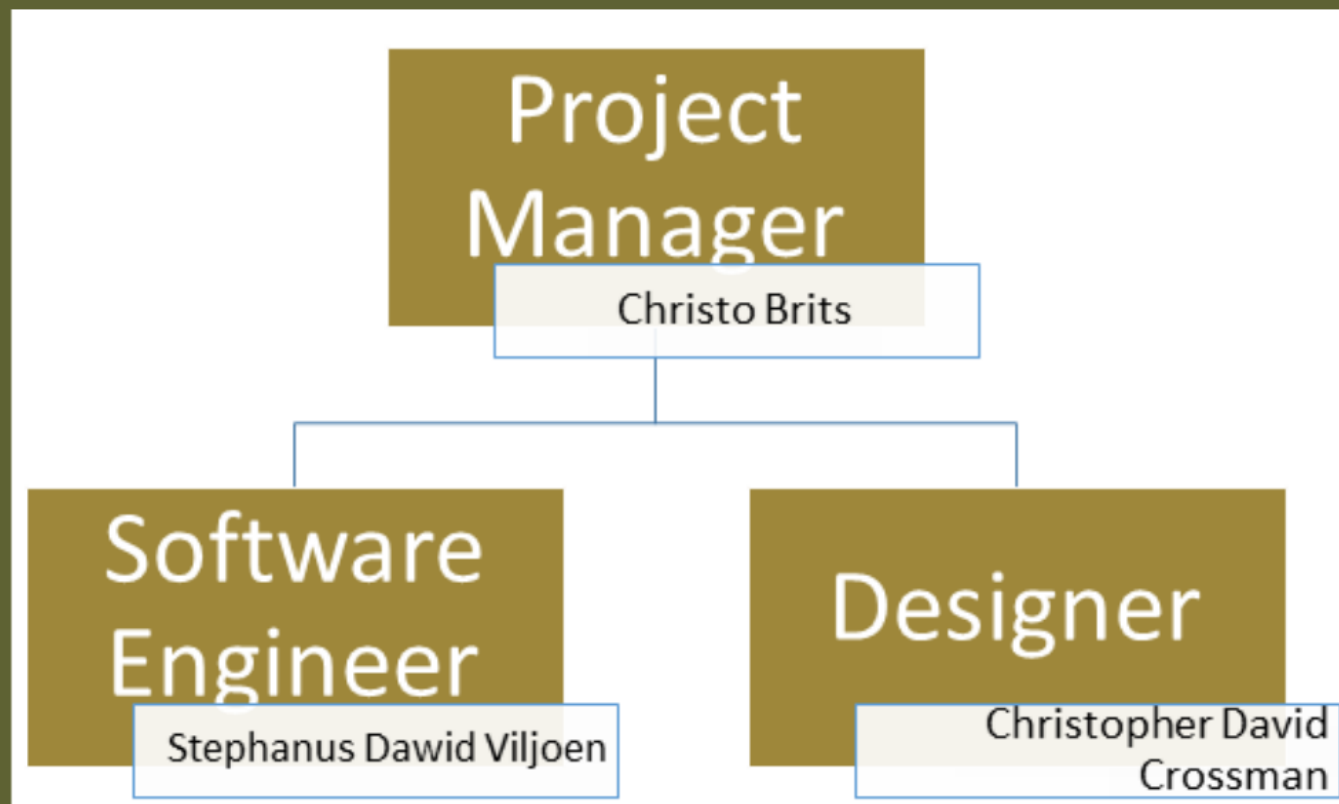


Stephan Viljoen
11008408



Chris Crossman

Roles



Client



Our long term vision is to be the world's best software engineering and solutions company, measured by the value we deliver to our clients, our employees and the greater community.

Contact Persons

Reshal Hurbans (Team Lead, Software Engineer)

Sheldon Lyne (General Manager of Operations)

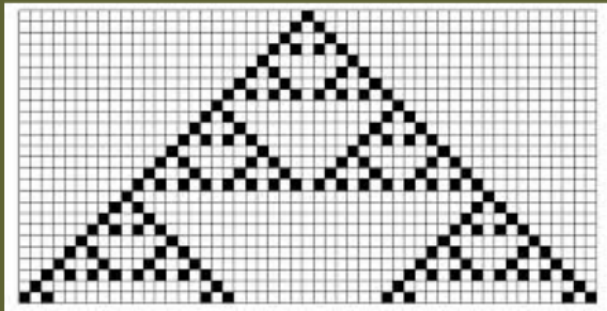
Project Overview

Cellular Automaton

A cellular automaton consists of a regular grid of cells, each in one of a finite number of states, such as on and off (in contrast to a coupled map lattice). The grid can be in any finite number of dimensions. For each cell, a set of cells called its neighborhood is defined relative to the specified cell. An initial state (time $t=0$) is selected by assigning a state for each cell. A new generation is created (advancing t by 1), according to some fixed rule (generally, a mathematical function) that determines the new state of each cell in terms of the current state of the cell and the states of the cells in its neighborhood

A good example of this would be **Game of Life by John Conway**

Project Overview

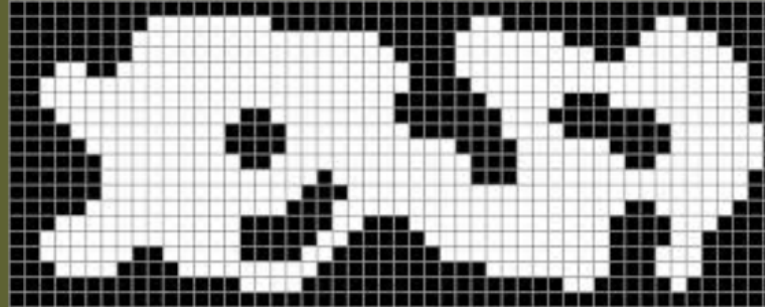


1D



3D

2D



Worlds consist of cells which have different states. Rules affect different states and cells act accordingly.

Requirements

Functional

- A user can sign in anywhere in the world
- A user can manage (create, edit, delete) cells, states, worlds and rules
- A user is able to share his/her ideas with other users

Non-functional

- Accessibility - Create a server to be available online
- Privacy - Use Spring Security for authentication and access-control
- Response time - Robust REST back-end, rich JavaScript front-end
- Portability - Can be accessed on different browsers (Chrome, Safari, Opera, Firefox, etc.)
- Usability - User-friendly interface (Gamefication)

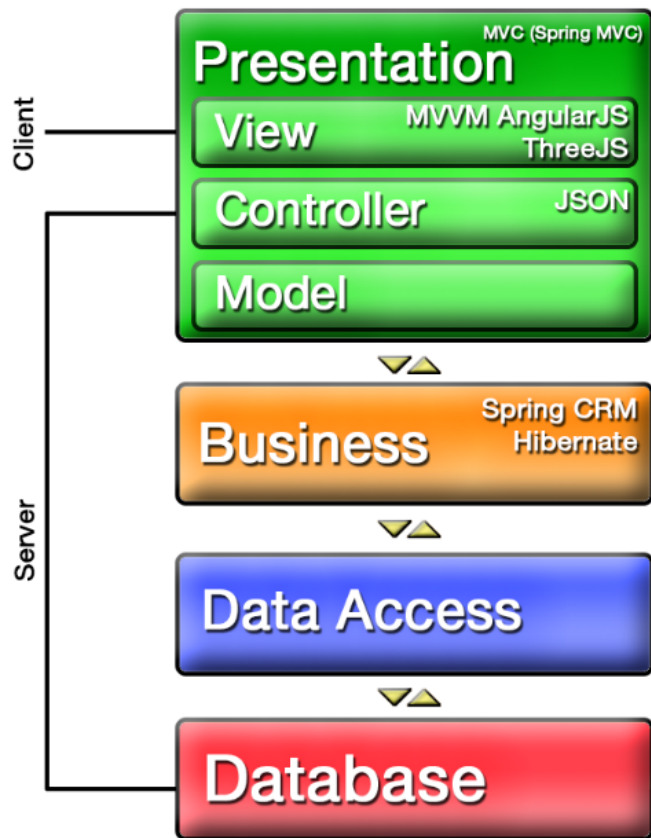
Implementation

Languages

- Java
- JavaScript
- HTML5
- CSS3

Network Structure

- Robust REST back-end
- Rich JavaScript front-end



Vision



Interface

- Gamification
- User-friendly

Shareable

- Academic ideas



Q & A

