Restaurant seating

Simulation



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**Date:** 15/09/2016 Kiril Peralta-Lukontsev

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# **Project statement**

## Formal client

Mr. Johnson of the board of directors from SIM Software Inc. SIM Software Inc. is a fast growing company in the field of simulations. In the recent years the company has focused on developing traffic simulation software.

## Project leader

Mr. Edgars Kruze is the project leader of our small and enthusiastic group. He has experience in developing all kinds of software including systems for social events, multiplayer games, flow network simulations, etc.

## Current situation

SIM Software Inc. is company that is rapidly growing in the software simulations field. They have already experience with traffic simulators and are looking to extend their cover in the software simulation are. For this purpose they are looking for an idea for a software simulator in a field different than that of traffic simulation. The idea we are proposing is a restaurant seating simulation.

## Project justification

Nowadays, in order to grow, a company must seek to develop itself and extends its influence in a particular field. That is why this project is an excellent idea and will help the company to broaden its cover in the software simulation field. Another benefit is that it may attract a lot of potential customers in the restaurant business who would like to make use of this restaurant seating simulation and improve their services.

## Project product

The final goal of this project is to create a restaurant seating simulation. Its purpose is to help restaurants to manage their available seats by simulating different scenarios. The results from the simulations can be used to improve the quality of service of a restaurant. The product is intended to greatly help restaurants organize their tables in order to satisfy the customer’s preferences. The application will allow the client to store results from a simulation together with the specific parameters and floor plans of the restaurant that is simulated.

## Project deliverables and non-deliverables

**Deliverables:**

* Agenda and minutes for every meeting
* User Requirements Specifications
* Project plan
* Restaurant seating simulation application
* Test plan
* Test reports
* Sprint planning
* Design document
* Process report
* Demo
* Application code

**Non-deliverables:**

* Profit per dish/drink
* Most optimal layout for restaurant

## Project constraints

* The proposal for the project should not be in the field of traffic simulations
* The development should be done in sprints and at the end of each sprint there should be a demo
* The application should be developed using Object Oriented language (C#, Java or C++)
* The simulated object(s) should be from the real world
* Random events that should influence the external state of the simulated object(s)
* Possibility for storing the object(s) and the results of a simulation session in a file/database
* In order to proceed further with the project we need the approval of Mr. Johnson member of the board of SIM Software Inc.
* Scope of the project must be determine in the early stages and bring into line with the client and the development team
* Scope of the project, what will be delivered and what not
* Define clear requirements

## Risks

|  |  |  |  |
| --- | --- | --- | --- |
| Risk | Possible solution | Severity of risk | Likeliness |
| The proposal is rejected | Discuss with the client what are his concerns and adjust the proposal | Low | Not likely |
| The sprints are too short/long | Make a plan of the sprints and presented to the client | Medium | Most likely |
| The product doesn’t work as expected | Make test plan with test cases and report with the results | Low | Not likely |
| Extra time for finishing the project | Speak with the client for dropping some extra features in the program | Low | Not likely |
| Too optimistic approach | Discussion with client about what really is possible to be delivered and what not | High | Likely |

## Project phasing

**Final**

**Developing and testing**

Write concept version of sprint planning

Write URS document

Write test plan

Interview with client

Present final version of project plan

Present draft project plan

Make proposal for the project

**Beginning**

**Planning**

**Designing**

Present the final product

Hand in final version of sprint planning

Development in sprints, after each sprint a working product is presented

Deliver documentation

Test the product in the end of each sprint, before presenting it to client, according to test plan

***M1***

***M2***

***M3***

***M4***

***M5***

**Deliverables for Milestone 1 (Due date: 11/09/2016):**

* Proposal for project

**Deliverables for Milestone 2 (Due date: 18/09/2016):**

* Information about the project from the interview with client
* Final version project plan

**Deliverables for Milestone 3:**

* Test plan (Due date: 09/10/2016)
* Final version URS (Due date: 02/10/2016)
* Concept version of sprint planning (16/10/2016)

**Deliverables for Milestone 4:**

* Final version of sprint planning (Due date: 20/11/2016)
* Development in sprints. Details about the sprints will be discussed in a later stage of the project
* Test report in the end of each sprint

**Deliverables for Milestone 5:**

* Final product
* URS
* Project plan
* Test plan
* Test report
* Design document
* Process report
* Presentation

# **Mosquito**

## Money

The project will be for free.

## Skills

The following skills will be required in order to execute the project

* Project management
* Object-oriented programming (C#, Java or C++)
* Software design and planning
* Agile development
* Object-oriented design
* Testing skills

## Quality

**Quality constraints:**

* The application should be implemented using object oriented language like C#, Java or C++
* There must be randomized events that influence the simulated object(s)
* It should be possible to store the simulation session and their results in a file
* The project should be executed using agile methodology, using sprints

**Problem prevention:**

* Extensive testing of the application
* Careful planning of the sprints

## Information

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Project**  **Proposal** | **Project plan** | **URS** | **Test plan** | **Sprint planning** | **Test**  **report** | **Design**  **Document** | **Process**  **report** |
| Project manager | Dr | Dr | Dr | R, Di | Dr | R | Dr | Dr |
| Client | R, Di, A | R | R | R, Di | R | Di, R, A | Di, R, A | R |
| Programmers | R, Di | R | Di | Dr | Dr | Dr | Dr | Di |
| UI Designer | R, Di | R | Dr | - | - |  | Dr | Di |

*(Dr = Draw up, A = Approve, Di = Discuss, R = Receive)*

## Time

The estimate project duration is about 16 weeks.

Time planning for the project activities:

* Idea for project – 1 week
* Project plan – 1 week
* URS – 2 weeks
* Test plan – 2 weeks
* Sprint planning – 2 weeks
* GUI design – 1 week
* Application development – 6 weeks
* Testing – 1 week
* Design document – 2 weeks
* Process report – 16 weeks (each week will be documented)

## Organization

GUI Designer

Dean Narendra, Nikola Chobanov, Edgars Kruze

Programmers

Edgars Kruze, Dean Narendra, Nikola Chobanov, Robbert van den Berg, Kiril Peralta-Lukontsev

Project manager

Edgars Kruze

Client

Mr. Johnson