Project plan+study diary

Cygnus 2022

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VERSION HISTORY

Version	Date	Authors	Explanation (modifications)
1.0	29.01.2017	Ignacio L.	Initial version

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1. PROJECT RESOURCES

On this part of the document, a brief presentation of the team background and skills is exposed, also describing the process of the work flow, tools and technologies used during the project.

1.1 Personnel

This chapter of the document exposes the team members and a short view of their capacities, roles and other documentation needed.

The team is composed by four members, Victor García, Iaroslav Gridin, Likai Ren and Ignacio Laviña.

	**Ignacio Laviña Faustmann (Product owner)**
Contact	Ignacio.lavinafaustmann@student.tut.fi +34677804196
Experience	App developer and tester (February 2015 – April 2016)
Skills	Team work Active learning Java Creativity
Interests	New technologies, entrepreneurship

	**Víctor García Zarco (Scrum master)**
Contact	victor.garciazarco@student.tut.fi +34666740213
Experience	Project developer @ Demola Tampere (October 2016 – January 2017) Frontend & Backend lead developer @ Hightrack (August 2015 – February 2016) Talentum Startups @ Telefónica (December 2014 – May 2015)
Skills	Frontend development (HTML5, CSS3, Backbone.js)

	Backend development (Java, C, PHP) Photoshop Project management
Interests	New technologies, entrepreneurship

	**Iaroslav Olegovich Gridin**
Contact	iaroslav.gridin@student.tut.fi +358449165346
Experience	Self-employed freelancer (2009-2015) Research assistant @ TUT (March 2016 – December 2016)
Skills	Ruby on Rails backend development C++, C, Ruby, Haskell, Go
Interests	Data exchange networks, video games

	**Likai Ren**
Contact	likai.ren@student.tut.fi +358466143860
Experience	Web Designer Intern @EasyMarketing Finland Oy Ab (July 2015-September 2015)
Skills	Programming Language: Python, Java, JavaScript, C++, C, C#, PHP; Framework: Flask, Django, React, Bootstrap
Interests	Web development; Ethical hacking

1.1.1 Estimated contribution

Ignacio Laviña Faustmann	20h/sprint
Víctor García Zarco	20h/sprint
Iaroslav Gridin	20h/sprint
Likai Ren	20h/sprint

1.1.2 Team's absence

Ignacio Laviña Faustmann	27 February – 4 March
Víctor García Zarco	26 – 29 January
Iaroslav Gridin	
Likai Ren	

1.2 Process description

The team members will have a meeting before each sprint to review the previous sprint, define goals and achievements, define the next sprint and split the task and work according to the Agilefant plan.

During the process, there will be active communication between the team members through slack, and other ways if it's necessary. The team members are committed to be active in communication, and ask for others feedback or help if it becomes necessary.

The individual tasks are defined before each sprit in Agilefant, always with the team agreement. previous agreement. Some task will require a group meeting for developing together and solving problems.

1.3 Tools and technologies

Table 1.1: Tools used in the project.

Purpose	Tool	Contact person	version
Documentation	MS Word (word processing) office.microsoft.com		2015
	ArgoUML (UML tool) http://argouml.tigris.org/	V.G.Z	16.9
Communication	Slack http://slack.com		2.3.4
	Outlook https://outlook.live.com		2017
	Mutt http://www.mutt.org/		201701 13 (1.7.2)
Version management	Git https://git-scm.com	V.G.Z	2.11.0
	GitLab https://gitlab.rd.tut.fi/		2017
Project management	Agilefant https://www.agilefant.com/	I.L.F	2017

	One Drive https://onedrive.live.com		2017
Development (SDK)	Processing https://processing.org/		3.2.3

As the duration of the project is less than 5 months if there is one new version of one tool/software we will ignore it, continuing with the current version (unless that version fixes security or important problems). The short duration of the project shouldn't be a problem for different versions.

Version control repository
The repository of the project is hosted in GitLab. The team have full access to it, while the customer will have only access to the *master* branch. Here, the customer will find the latest working version of the project.

Agilefant
Project management is done using Agilefant. Customer requirements are made into user stories, then they are converted to backlogs and distributed between sprints based on difficulty, dependencies and value. Then tasks based on backlogs are distributed among team members based on their capabilities and preferences. Team velocity is tracked and allows better time allocation in future.

Processing
The main development work is done by Processing, which is an integrated development environment (IDE) and a programming language for visual arts. Processing is open source and free to use in multiple platform, including Linux, Mac OS X and Windows. Processing can be used to create interactive programs with 2D, 3D or PDF output. With OpenGL integrated for accelerated 2D and 3D, Processing even has more than 100 libraries extending the core software.

1.4 SPRINT BACKLOGS

After analyzing the requirements given by the customer, some user stories have been made to manage them easily. Also, as processing is a new technology for the team, the learning curve will increase exponentially from the beginning (personnel with experience in different fields). Because of that, the first phases of the projects will contain less workload than the final ones.

1.4.1 Sprint 1

Sprint 1 includes getting team acquainted with tools, implementing welcome screen and basic game screen. By the end of sprint, game will allow to input name, show background information and render basic view.

The first story called “Story 1” on Agilefant has been designed for the team and contains the task related with the complement of requirements one and two:

1.4.1.1 Story one

As a user, I would like to give my name to receive a welcome message when I am going to start. Also, before starting the play I want to see a story of what it is about.

User Requirements

Customer Requirement 1:

When the application starts, it inquires the player's name.

Customer Requirement 2:

After prompting the player's name, the game greets the player, tells a compelling background story and the game begins

The list of the task related to this story are:

- Design of the first screen
- Development of first screen
- Design of customized welcome screen
- Development of customized welcome screen
- Design of story/context
- Include story after the welcome screen

2. STUDY DIARY

2.1 Sprint 1

3. RISK MANAGEMENT PLAN

The ID of the risks is defined by the pattern XY, where:

- X refers to the category of the risk.
  - P: Project management
  - T: Technologies
  - C: Customer
  - E: Environment
  - Pe: Personnel

Table 4.1: Project risks.

Risk ID	Description	Probability	Impact

P1	Bad scheduling of the project/sprints	2	3
T1	Online tool not available	2	2
T2	Learning of new technologies	1	2
T3	HW problems with the equipment	1	2
C1	Bad communication with the customer	3	2
C2	Unclear requirements	3	2
C3	Number of requirements increased	2	1
E1	External attack to own systems	1	3
E2	Internet connection lost	1	1
Pe1	Short term absence	2	3
Pe2	Long term absence	1	3
Pe3	Bad communication within the team	1	2
Pe4	Overload of work	1	1
Pe5	Change of job (leaving the team)	1	2

3.1 Project management risks

3.1.1 Risk P1: Bad scheduling of the project/sprints

Symptom, early warning sign: not enough time to finish on time.
Source or reason: bad scheduling of the times of the project/sprints due to historical data.
Probability: 2 medium (on scale 1-3)
Seriousness: 3 high (on scale 1-3)
How to avoid: think well about what is able to do each member of the team in the scheduled time.
How to prevent: reorganize the tasks and workload for each member.
How to survive: good relationship with the customer, allowing small changes on the plan.

3.2 Technology risks

3.2.1 Risk T1: Online tool not available

Symptom, early warning sign: delays or no access to the online tool.
Source or reason: external problem with the provider.
Probability: 2 medium (on scale 1-3)
Seriousness: 2 medium (on scale 1-3)
How to avoid: selection of the best tool provider.
How to prevent: premium accounts use to have preferences for this situation.
How to survive: existing alternative to work (other online platform or offline work).

3.2.2 Risk T2: Learning of new technologies

Symptom, early warning sign: the speed of the users working is not efficient.
Source or reason: the team doesn't know the new technology.
Probability: 1 low (on scale 1-3)
Seriousness: 2 medium (on scale 1-3)
How to avoid: provide a solution for the customer with known technologies.
How to prevent: give all the necessary information to improve the skills with the technology.
How to survive: temporary hiring of a new member who knows the technology.

3.2.3 Risk T3: HW problems with the equipment

Symptom, early warning sign: disk makes noise, arbitrary reading errors occur more often than before.
Source or reason: hard disk is at the end of its lifespan, or hard hit on computer while disk was running.
Probability: 1 low (on scale 1-3)
Seriousness: 2 medium (on scale 1-3)
How to avoid: buy a new disk when starting a project.
How to prevent: when first symptoms occur, take additional back-ups and change the disk as soon as possible.
How to survive: back-ups, and a replacement disk or whole computer.

3.3 Customer risks

3.3.1 Risk C1: Bad communication with the customer

Symptom, early warning sign: the customer doesn't receive the product expected.
Source or reason: lack of communication with the client

Probability: 3 high (on scale 1-3)
Seriousness: 2 medium (on scale 1-3)
How to avoid: define regular meetings and ways of communication.
How to prevent: increase the number of meetings with the customer.
How to survive: redefine the ways of communication and have a meeting with the customer to review all the work.

3.3.2 Risk C2: Unclear requirements

Symptom, early warning sign: the customer is not receiving the product expected.
Source or reason: bad or lack of communication with the customer. Maybe the customer doesn't really know what he wants.
Probability: 3 high (on scale 1-3)
Seriousness: 2 medium (on scale 1-3)
How to avoid: define regular meetings and help the customer to decide.
How to prevent: stop the project and redefine the requirements.
How to survive: meeting to redefine the requirements and the project.

3.3.3 Risk C3: Number of requirements increased

Symptom, early warning sign: the customer asks for new functionalities.
Source or reason: the preferences of the customer have changed-
Probability: 2 medium (on scale 1-3)
Seriousness: 1 low (on scale 1-3)
How to avoid: closed budget and requirements list before starting the project.
How to prevent: meeting with the customer to decide if it is possible to increase the number of the requirements.
How to survive: re-schedule the work.

3.4 Environment risks

3.4.1 Risk E1: External attack to own systems

Symptom, early warning sign: alarms in the firewall and other systems.
Source or reason: external attack (DDoS, for example)
Probability: 1 low (on scale 1-3)
Seriousness: 3 high (on scale 1-3)
How to avoid: define and implement a good security plan
How to prevent: isolate the infected device
How to survive: backups of all the important data.

3.4.2 Risk E2: Internet connection lost

Symptom, early warning sign: delays and lack of connectivity to internet.
Source or reason: external attack, failure in internal network, failure in network cards.
Probability: 1 low (on scale 1-3)
Seriousness: 1 low (on scale 1-3)
How to avoid: review of systems and devices. Reliable network provider.
How to prevent: identify the problem (HW or network provider) and look for an alternative.
How to survive: possibility of working in offline mode.

3.5 Personnel risks

3.5.1 Risk Pe1: Short term absence

Symptom, early warning sign: one team member is missing for some days.
Source or reason: illness, personal reasons
Probability: 2 medium (on scale 1-3)
Seriousness: 3 high (on scale 1-3)
How to avoid: defined schedule and days when the members are not available.
How to prevent: to have access to the data of the member (other one can replace him easily).
How to survive: re-distribute the workload between the rest of the member, giving incentives for doing it.

3.5.2 Risk Pe2: Long term absence

Symptom, early warning sign: one team member is missing for a lot of time.
Source or reason: illness, personal reasons.
Probability: 1 low (on scale 1-3)
Seriousness: 3 high (on scale 1-3)
How to avoid: defined schedule and days when the members are not available.
How to prevent: to have access to the data of the member (other one can replace him easily).
How to survive: re-distribute the workload between the rest of the member, giving incentives for doing it.

3.5.3 Risk Pe3: Bad communication within the team

Symptom, early warning sign: the team is not synchronized in the work.
Source or reason: lack of communication, bad relationships.
Probability: 1 low (on scale 1-3)

Seriousness: 2 medium (on scale 1-3)
How to avoid: define ways of communication within the team. Promote good relationships with different activities.
How to prevent: meeting of the team to update the information of everybody.
How to survive: meeting of the team to solve the problem.

3.5.4 Risk Pe4: Task overload

Symptom, early warning sign: the team is not accomplishing the deadlines.
Source or reason: bad distribution of the work
Probability: 1 low (on scale 1-3)
Seriousness: 1 low (on scale 1-3)
How to avoid: necessary to know the capabilities of each member of the team.
How to prevent: redistribute the workload for that member.
How to survive: redistribute the excess of workload between the rest of the team.

3.5.5 Risk Pe5: Change of job

Symptom, early warning sign: one member of the team receive offers from different companies
Source or reason: bad conditions in the current job (or worse than the new offered)
Probability: 1 low (on scale 1-3)
Seriousness: 2 medium (on scale 1-3)
How to avoid: good treat to the employees with the best conditions as possible.
How to prevent: re-negotiation of the current conditions.
How to survive: replace the employee as soon as possible. If not, redistribute the workload between the rest of the team.