
Game project

Hangman

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My GitHub: https://github.com/ar223gf/ar223gf_1dv600

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Revision History

Date	Version	Description	Author
20/02/2019	1	My first trial on how to make a proper plan	Alireza Rajouldezfooly
27/02/2019	1.1	My first semi complete version of project plan	Alireza Rajouldezfooly
18/04/2019	2	Second trial of an enhanced version with more info on General information and iteration	Alireza Rajouldezfooly
22/08/2019	3	Fully dressed plan with complete information and reflection on each section. Closely tailored based on last feedback.	Alireza Rajouldezfooly

General Information

Project Summary	
Project Name	Project ID
Hangman	Ar223gf-hm
Project Manager	Main Client
Alireza Rajouldezfooly	Tobias Andersson Gidlund
Key Stakeholders	
Alireza Rajouldezfooly Tobias Andersson Gidlund Daniel Toll Tobias Olsson	
Executive Summary	
My mission is to make a fun game that everyone can enjoy and will put the player Geographical knowledge into challenge. It's called Hangman and the player can guess a word with six trials. This game will include graphics.	

3 Vision

As a developer in his 20's I believe people's Geographical and cultural knowledge has been reduced or influenced by media. Especially has been seen many times from younger generations that they do not know where a country is located or have not even heard the name of a country before. As a habitant of this planet, this is a sad story to be told.

A hangman is an interactive game where a random word is chosen by one player and the other player is supposed to guess it alphabet by alphabet. As the second player who is guessing, makes a mistake parts of a hanged body appears starting with the head, then with the second mistake, body, by third and fourth mistakes, left and right hand and by fifth and sixth mistake left and right leg. As the whole hanged body appears the second player has lost the game.

This game has been played by generations and until today has been a one of the most popular games.

I tend to develop a graphical hangman game where the criteria are the name of countries. This game can challenge the players geographical knowledge and I believe as they see a new name, there's a good chance the player would search about the name, learn about the country hence that would be the cultural impact. This game will be designed in way to be fun and enjoyable for the player.

Our product will have one types of user:

Customer: They will be able to start, play, restart and quit the game. In other words, they can play the game as much as they want whenever they want to. They can win if they guess the word right and will lose if they can't guess and run out of trials.

The purpose of this game is to challenge the players knowledge of country names through having a simple fun game.

Reflection: Writing the vision gave me the opportunity to write how I feel and what I think about the game. It's a good practice to show the true purpose of developers and their feeling about the project they are working on to the project manager, and customer. Motivation behind a project can show the morality embedded in a project hence the purpose of developer, as it was written in one of anonymous source material in our java course in university: "The vision should be inspirational and tell why the game is developed. What the aim is with the product".

4 Project Plan

4.1 Introduction

This project is to create a computer hangman game. In a hangman game a random word is chosen by one player and the other player is supposed to guess it alphabet by alphabet. As the second player who is guessing, makes a mistake parts of a hanged body appears starting with the head, then with the second mistake, body, by third and fourth mistakes, left and right hand and by fifth and sixth mistake left and right leg. As the whole hanged body appears the second player has lost the game. In the computer game, the machine randomly chooses the word and the client/gamer are to play the game. The criteria of the words are the name of the countries with two purposes. First to have the game more challenging and second to have the players' knowledge of country names improved. The second purpose happens when the player loses and learns the name, or they search to find the name on the Internet.

4.2 Justification

I believe people have low knowledge in geography. By playing a fun, graphical interactive game, they might find interest to know more about the countries around the globe. And, just playing the game they are gaining geographical knowledge.

4.3 Stakeholders

Programming:

Alireza Rajouldezfooly

End user:

Gidlund, Tobias Andersson

The player who is interested in trivia-based game, hangman or geographical question and info related

4.4 Resources

Personal computer: Dell xps 13 9370 (Intel core i7-8550U CPU 1.8 GHz based, 8 GB Ram, 256 SSD)

online tutorials: YouTube tutorials and recorded LNU Lecture videos on java and javaFX

study materials: Sommerville Software Engineering 10th-Edition book

Available time on the project: 20 hours a week for 12 weeks in total

Time for learning about the different parts: As planned, 40 hours in total on javaFX. As planned, 40 hours in total on java methods.

4.5 Hard- and Software Requirements

4.5.1 Hardware: Laptops: Dell xps 13 9370

4.5.2 Software: Eclipse: for developing and coding. JDK 8, JavaFX 11.0.2

4.6 Overall Project Schedule

The project plan deadline: Friday, 23 August 2019, 11:55 PM

The Software Design deadline: Friday, 20 September 2019, 11:55 PM

The software Testing deadline: Friday, 20 September 2019, 11:50 PM

The Final Iteration deadline: Friday, 23 August 2019, 12:00 AM;

4.7 Scope, Constraints and Assumptions

Scope: The ability to start the game. The ability to restart the game: The ability to exit the game. The ability to enter an alphabet to determine the right word. Program chooses a word randomly. Player can win or lose the game. Player will be shown the correct word if they lose. The game includes graphics.

The ability to have a score or to save the score is not included,

Constraints: The game must start from an IDE. The game only has a criteria of country names. The game requires JavaFX installed on IDE.

Assumptions: The user might enter a wrong character. User might try to enter the whole word at once. The user might enter character that are not alphabets. The user needs to have an IDE installed on their desired computer. The IDE must have JavaFX libraries included, if not they can download and add the libraries as a source to IDE. They can do so through configuration. User must also set the VM argument to where the SRC jar of JavaFX is saved on their machine. Then player/user can run the code through IDE.

Reflection: The project plan helps the developer to Justify their means on why they are interested in creation of a project, introduce it, reflect what are their needs, what are the functionalities of the program and outline their plan in general. Personally, I believe this the most important section of a project plan since the most important parts about a program can be presented in a short way to the client. Hence it must be explicitly detailed.

5 Iterations

5.1 Iteration 1

The first Iteration is to make a project plan and starting to implement Codes and methods to some extent just to have a skeleton. In the plan I will write: Revision History, General information, project plan, Iterations, Risk Analysis and time log. In order to make the plan related chapters on Sommerville Software Engineering 10th-Edition book will be read. The idea that is to be implemented as a code is the way the words for hangman will be stored and how they'll be accessed.

TASK	ESTIMATION TIME	Description	REAL TIME	Due date
Writing Revision History	10 MIN	It's about different version of a task that and when they have been initialized.	15 MIN	Friday, 23 August 2019, 11:55 PM
Writing General information	30 MIN	It's a short summary of project	20MIN	Friday, 23 August 2019, 11:55 PM
Writing Vision	30 MIN	It tells the aim and reason why a program has been developed	45 MIN	Friday, 23 August 2019, 11:55 PM
Writing project plan	1 H	This part outline exactly what the project is	1H	Friday, 23 August 2019, 11:55 PM
Writing Iterations	1 H	A completely detailed plan of all the tasks that need to be done.	1 H	Friday, 23 August 2019, 11:55 PM
Writing Risk Analysis	45 M	It is about listing risk and evaluating their impact.	1 H	Friday, 23 August 2019, 11:55 PM
Writing Time log	15 MIN	It's the report of the actual time spent on each task.	15 MIN	Friday, 23 August 2019, 11:55 PM
Coding	2 H	Implementing a part of the skeleton of the game	2 H 15 MIN	Friday, 23 August 2019, 11:55 PM

5.2 Iteration 2

In this part all the diagrams must be done but before that I must study on how to do them. More methods such as Input checker which checks whether the input is char or not and contains which checks if the char is included in the chosen word, will be implemented. Before Implementing the added methods must modelled using UML.

TASK	ESTIMATION TIME	Description	REAL TIME	Due date
UML MODELING	1 H 30 min	Is to model the behavior of a machine in different diagrams.	2 H	Friday,20 September 2019,11:55 PM
DIAGRAM DESIGN	3 H	Is to design the diagrams for the UML.	3 H 15 MIN	Friday,20 September2019, 11:55 PM
CODING	3 H	To implement more codes to the game and organize it.	4 H 20 MIN	Friday,20 September 2019, 11:55 PM

5.3 Iteration 3

The purpose of the iteration is to test the code up to now. All the methods will be tested, and the tests will be planned first and documented. First, I will try a few methods and analyze the result to make sure they are fulfilling the purpose of testing. The ways of testing have been studied from lecture slide.

TASK	ESTIMATION TIME	Descriptions	REAL TIME	Due date
PLANNING	30 min	Is to first make plan on which methods and how they will be tested	40 min	Tuesday,16 April2019, 11:55 PM
TESTING	1	To implement the codes for testing.	1 h 10 min	Tuesday,16 April2019, 11:55 PM
DOCUMENING	1 H	To document the result and personal evaluation of them.	45 MIN	Tuesday,16 April2019, 11:55 PM

5.4 Iteration 4

In the final iteration, iterations 1 to 3 will be repeated. The game must be finished by the time this iteration is completed. I'm looking at the final iteration since all the past iteration must be repeated or updated. All the iteration has been described in their section.

TASK	ESTIMATION TIME	DISCRIPTION	REAL TIME	Due date
LAST ITERATION	6H	To repeat all the past iteration and present the full tailored game.	4 H 50 MIN	Friday,23 August 2019, 12:00 AM

6 Risk Analysis

6.1 List of risks

- Lack of Source material to refer: This risk has a low chance of happening since LNU and teachers have provided many lectures also there are many sources on the internet, and the Sommerville Software Engineering 10th-Edition book.
- Lack of time: This risk has a high chance of happening since the developer has other Jobs, courses, and assignments to handle.
- Unexpected accidents: Developer getting sick at critical times in the project.
- The time required to develop the program is underestimated and failure to meet on agreed schedule. The probability is unknown due to the risk is completely out of control.
- Late delivery of the assignment: This risk has a low chance since it's crucial for the developer to hand in the project on time.
- Losing data, tool risk: The probability is unknown since it's completely out of developers control.

6.2 Strategies

- Being updated with all the accessible sources.
- Staying healthy as possible by having a healthy diet.
- Scheduling and sticking to the time plan at all time.
- Frequently backup the project.
- Consider extra time in the project
- Finishing the project before the delivery time

REFLECTION: Indeed, in the process of developing a software I will face risks within the code itself or between the units, that must interact inside the application. Risk identification is the first stage of the risk management process by identifying the risks, I should be able to proactively modify my codes and reduce the overall risk of our project. Risk is an expectation of loss a potential data that may or may not happen at the initial version. However, when the risks identified, we need to modify our codes and ensure the project is a success.

Time log

TASK	DATE	ESTIMATED TIME	REAL TIME
Writing Revision History	22/08/2019	10MIN	15 MIN
Writing General information	22/08/2019	30 Min	20 Min
Writing Vision	22/08/2019	30 Min	45 Min
Writing project plan	22/08/2019	1 H	1 H
Writing Iterations	22/08/2019	1 H	1 H
Writing Risk Analysis	22/08/2019	45 min	1 H
Writing Time log	22/08/2019	15 M	15 M
UML MODELING	22/08/2019	1 H 30 Min	2 H
DIAGRAM DESIGN	22/08/2019	3H	3 H 15 min
CODING	22/08/2019	3 H	4 H 20 min
PLANNING	22/08/2019	30 min	40 min
TESTING	22/08/2019	1 H	1 H 10 min
DOCUMENING	22/08/2019	1 H	45 min

LAST ITERATION	22/08/2019	6 H	4 H 20 MIN
CODING	22/08/2019	10	12 H