SOFTWARE DEVELOPMENT PROJECT Hangman

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COURSE CODE: 1DV600

1. Revision History

Date	Version	Description	Author
2019-02-08	1.0	Documentation	Rashed Qazizada

2. General Information

Project Summary	
Project Name	Project ID
Hangman	rq222ah_1DV600
Project Manager	Main Client
Collaborate teachers:	Teachers and friends
Key Stakeholders	
Teachers, developers, students.	
Executive Summary	
The purpose of developing the Hangman game is that the player is going to guess a word by suggesting letter after letter and the number of wrongs guesses that the player can have is eight. The project will be developed through four iteration based on the feedbacks from the the respective teachers.	

3. Vision

Create a vision document for the system. This should be a document covering about half an A4 page describing the system. The purpose of the document is to make sure that everyone involved in the project has the same vision of what is to be created. Use the "Assignment Overview" and previous subtasks as your source for what to write. In addition, write down your reflections on creating a vision document. This reflection should be about 100 words.

Hangman, a game where you must guess words. Most of us may know the principle of the Hangman game. The game is to challenge your field of knowledge on the selected category. Before the game starts, the player must select one of the categories presented on the screen and then the user will be given extra option such as to play the game, to restart the game, to show the high score board or to quit the game.

Execution of the man in each round has eight errors before the man is hanged. A word will be picked randomly from a predefined selected category list of nouns and the number of letters in the word will be represented as underscores. For instance, the word to be guessed is "Sweden" the word will be shown as _ _ _ _ _ _ if the player's first guess is 'e' then it is displayed as _ _ e_ e _. additionally, If the player manages to enter the right letters and wins 3 games in a row then s/he will be given a chance to write his/her name on the high score board.

However, if the player enters 8 wrong letters the player loses, and a complete hangman figure will be shown.

3.1 Reflection

First, writing a vision document helped me to understand the Hangman game better than I used to know and helped me to think of the different functionalities of the project Hangman game. As a beginner, I had no knowledge in regards how a project is done or how it is processed. Furthermore, writing this vision document helped to organize and limit my work on the project.

I think having a plan is always good to have. It provides an overview of the project to the targeted Stakeholders, teachers, students and I found it important.

4. Project plan

Write a project plan for the project. This project plan should show the way to the complete and finished application, something that you should be able to follow. Write as much as possible in the project plan, use the material available on mymoodle (deadlines etc.), and update the document throughout the course when you know more in the later assignments.
Again, as an addition, write down your reflections on creating a project plan. This reflection should be about 100 words.

The very beginning of the course, I was assigned to create a project plan for the Hangman game. The basic idea of Hangman game is that the player is going t**o guess a word by suggesting letter after** letter. Furthermore, the course has three themes and each theme consist of theory, study material, online exam and last but not least ends with an assignment.

Theme 1: Process and Planning consists of theory, study materials, online exam and two recorded lectures about software process models and on how to plan your project. In this assignment, I start with the documentation of the project for the Hangman game and complete the first iteration of creating the Hangman game project due to the deadline on 8 of February 2019.

Theme 2: Modelling and Designing

4.1 Introduction

What it is in a short a clear way.

The purpose of developing the Hangman game is that the player is going to guess a word by suggesting letter after letter and the number of wrongs guesses that the player can have is eight. The project will be developed through four iteration based on the feedbacks from the the respective teachers.

4.2 Justification

Why should the application be made?

The main objective of creating such an application is the formal functionality of the software and the practical application of the theme of “Process and Planning”.

4.3 Stakeholders

List and define the different stakeholders for the project.

Teachers, developers, students.

4.4 Resources

What resources are available and used to create the application?

The Hangman game has been created and developed in the latest Eclipse version, using course materials and JDK version 11.0.1.

4.5 Hard-and-software Requirements

Specify what is used to develop and later run the software developed.

A computer with basic requirements plus JDK and Eclipse

4.6 Overall Project Schedule

What are the important dates for deliverables?

1. - **2019-02-08** Documentation, GitHub repository, skeleton code
2. - **2019-02-21** Assignment 2 UML behaviour- and structure modelling
3. - **2019-03-08** Testing Assignment 3
4. - **2019-03-22** Unknowing facts

4.7 Scope, Constraints and Assumptions

Detail what is part of the project and what is outside – specify the scope of the project.

The scope: The project main goal is to implement the game “Hangman” in a text-based fashion in the language that I have used in previous courses (Java). The project will only focus on single player and the Hangman game is only playable using Eclipse.

Constraints: The main constraint is that it is only executable in a terminal or console and the user must have a computer installed with Eclipse, JDK, JRE and should know how to run the Hangman game.

that it involves one unexperienced student. It can take much longer time to build a high-quality game. Another reason might be that we do not have labs to seek help.

Assumptions: The project involves one unexperienced student. It can take much longer time to build a high-quality game. Another reason might be that we do not have labs to seek help.

4.8 Reflections

At the very beginning, I was confused with all the information, about how everything is going to work and step by step I figure it out. The 4.7 part of Project plan gives a good overview the project. I think Project plan is beneficial and it makes the project clear for the next step.

However, still not sure if I have followed according to the request. Despite lack of required knowledge of documentation, I tried to follow the content of the template and complete the task given.

5. Iterations

Plan for four iterations, including this. This is a fine-grained plan on what is to be done in each iteration and with what resources. To begin with, this is a plan of what I expect to do, I will update this part with additions.
The first assignment is to complete iteration one.

5.1 **Iteration 1:** The first iteration in this project plan alongside with some degree of implementation is to complete the documentation so that the implementation goals are met in code. I have already implemented an idea and some skeleton code for my project to work with.
Tasks:

- Vision: Create a vision document for the system and write reflection
- Project plan: Write a project plan for the project and write reflection
- Iteration plan: Plan for four iterations, including this
- Risk Analysis: All projects face risks. During the risk analysis process consider each identified risk and make a judgment about the probability and seriousness of that risk
- Time log: Create a time log
- Coding: Create the structure of your game. Push it to GitHub
- Create project GitHub repository.
- Pushing the project plan to the GitHub as a documentation file
- Release Assignment one in GitHub. “the link”.

Iteration 2

In this iteration you need to add some features to the game but after you have first modelled them using UML. All diagrams need to be included in the project documentation and should be implemented in the way modelled.

5.2 Iteration 3

You may include additional features to the game in this iteration, but the main focus is on testing. Plan, perform and document your tests in this iteration.

5.3 Iteration 4

The outcome of this iteration is the complete game. Reiterate the steps in iteration 1 – 3 for a set of new features but also remember to see the project as a whole, not only its parts

6. Risk Analysis

All projects face risks that make it important to prepare for what might happen. Use the chapters in the book as well as the content of the lectures to identify the risks within this project. As always, write down your reflections on creating a risk analysis. This reflection should be about 100 words.

Indeed, in the process of developing a software you will face risks within the code itself or between the units that must interact inside the application. By identifying the risks, I as developer be able to proactively modify my codes and reduce the overall risk of my 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, I need to modify my codes and ensure the project is a success

6.1 List of risks

List the identified risks and specify, as far as possible, the probability of them happening as well as the impact they would have on the project.

- Lack of experience
- Lack of documentation.
- Lack of new ideas
- Lack of time, due to other courses at the university.
- Unexpected accidents like getting sick, losing data, tool risk.
- The time required to develop the program is underestimated.
- Late delivery

6.2 Strategies

Prepare for the risks by having strategies for avoiding the risks as well as minimising the impact of them if they do occur.

A good strategy begins by proper planning and documentation. In order to minimize the risk of mistakes at the very beginning of your project. Plan wisely

- Frequently backup the project.
- Consider extra time in the project.
- Finish the project before the delivery time.
- Find out bugs and other issues related to the software
- Plan more hours than usual but do not stress your staffs, this part needs to be carefully monitored to avoid exceeding the time and the budget.

6.3 Reflection

I personally found this part of the assignment important and interesting. I think a good strategy comes with a good knowledge and experience. However, a project risks and strategy related to its size and coverage of the software and I believe the project I am expected to do is not a complex one but still as beginner there will be many risks on the documentation as well as on the codes since only one student (programmer) is working on it. Unexpected accidents may take place which will result for Re-submitting the Assignment.

7. Time log

Each assignment must be accompanied with a time log. This time log should contain the date, time and task to be performed. The reason for doing this is for you to get some experience in estimating your own time – creating a time log is one of the best ways of doing this. Take into account the time for learning and understanding of the problem when you plan the time. Make your planning with 15 minutes as the minimum unit. In the time log you start by planning the amount of time you believe a task will take and after it is done you mark the actual time. If every entry that has a difference in planned and actual time spend, analyse the time difference.

Theme 1	**Date**	**Time**	**Estimated**
Intro to course, intro to GitHub	2019-01-24	2	1h
Reading the book	2019-01-24	8h	4h
Vision	2019-01-26	1h	1h
Project plan	2019-01-29	1h	1h
Iteration	2019-02-01	1h	45m
Designing	2019-02-01	1h	1h
Create an account in GitHub and a repository in for Software Technology course.	2019-01-27	2h	1
Reflection	2019-02-03	3h	1
Risk analysis	2019-02-04	3h	2
Skeleton code	2019-02-05	20m	20
Finish writing iterations 1 body.	2019-02-07	1h	1
Upload all files to gitHub.	2019-02-08	15m	15m
Completed the documentation in		**23 h & 35m**	**19h & 20m**
Theme 2	**Date**	**Duration**	**Estimated**

8. Handing in

All assignments have a number of files to hand in. The overall advice is to keep it simple. Make it easy for the reciever to understand what the files are by using descriptive file names. Use as few separate documents as possible.
Always provide a context, that is do not send a number of diagrams in "graphics format", but always in a document where you provide the purpose and meaning of the diagrams. Remember that the "reciever" is in reality a customer and as such has very little knowledge of the diagrams and documents – always provide context that make anything you hand in understandable to a non-technical person.
To hand in an assignment, make a git release and hand in the link via
Moodle to that release.