UNIVERSITI MALAYSIA SARAWAK
Faculty of Computer Science and Information Technology

Assignment Cover Sheet

Group : Five Stars **Group Members:** 1 . Jadecrystal Tang Ming Mei (36309) 2. Lee Fui Yee(36618) 3. Nuratiqha Binti Abd Razak (38098) 4 . Tan Sheu Yeu (39049) 5. Vernon Chien (39233)	**Signatures:**

Subject Code : TMP 3413	**Subject Name :** Software Engineering Laboratory

Assignment (Title) :	Project (Mario)

Name of Lecturer :	Madam Nurfauza Jali

Due Date : 8th October 2014	**Date Submitted :** 8th October 2014

All work must be submitted by the due date. If an extension of work is granted, an assignment extension acknowledgement slip must be signed by the lecturer/tutor and attached to assignment. Please note that is your responsibility to retain copies of your assignment.

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1.0 Abstract

This proposal proposes a software project, which is a game named Mario that will be developed. Mario is a simple adventure game. The player has to choose and name the character at the beginning of the game. After that, the character has to start his or her adventure.

Problem statement and objectives of Mario are initially outlined. The discussion then focuses on the scope of Mario. Other than that, this proposal also includes task allocation, team goal and contribution of the team. Lastly, a brief description on expected result will be in the last part of this proposal.

2.0 Background study

A.S. Douglas created the first computer game which is a graphical Tic-Tac-Toe in 1952 (Bellis, 2014). "The game was programmed on a EDSAC vacuum tube computer, which had a cathode ray tube display" (Bellis, 2014, para. 1). After the invention of computer game, video game is born. The first video game was created in 1958 by William Higinbotham (Bellis, 2014). Computer games and video games both can be influential, addictive, competitive, and also fun.

One noteworthy game that has all of these is Mario. Mario was created by Shigeru Miyamoto in 1980 and it became one of the most popular games of its time (Stuart, 2010). Mario was originally named Mr. Video by Miyamoto (*History of Mario*, 2014). The name is changed to Mario by another staff which worked in the same company with Miyamoto after Miyamoto leave the company (*History of Mario*, 2014).

Computer games have improved themselves and newer platforms are starting to surface themselves in the gaming industries. Japan, which was once a gaming developer giant, now stands in a dangerous position as games from other countries and platforms are taking away the highlight. There are a lot of new games, for example Left 4 Dead had attracted a lot of gamers. Thus, this leads to the community forget and leave behind the Mario games that everyone used to

love and enjoy. So, now the problem lies in making the community realize that old games like Mario can be enjoyable and addictive to the newer generations as well as the old ones.

In short, one clear solution to this problem is that, the original Mario game has to be refined and refreshed so that it brings something new to gamers, both old and young and also preserving the game itself as a 2D platform adventure game.

3.0 Objective

The objectives of this project are as stated below:
1. Improve the popularity of Mario
2. Improve the quality of Mario
3. Build a game which involve some educational purpose in the game
4. Build a game that is suitable for everyone regardless of age
5. Build a game which can entertain people
6. Save valuable childhood memory

4.0 Problem Statement

Mario was a very common and popular game in the 90s. Mario is fun and the most important thing is Mario is a part of our childhood memory. However, the development and enhancement of the information technology have introduced a lot of games in the market. A game like Left 4 Dead that is violent and bloody had taken over the popularity of Mario. By some estimation, Mario will be forgotten and disappear one day. Action is needed to avoid that happening and to keep our childhood memory. Hence, a new version of Mario will be developed to keep its popularity and freshness.

5.0 Scope

This project will consist of creating a game based upon the traditional Mario. This will bring a brand new version of Mario for kids, teenagers and adults. The Mario will be consist of

three levels and player has to win the current level in order to proceed to the next level. The new develop Mario is different from the traditional Mario in the way of the game starting, the player passing through each level and many other minor parts.The game requires the player to choose a character and name the chosen character before the game is started. In the traditional Mario, the player can proceed to the next level directly as long as the character reaches the castle. However, in this new develop Mario, player has another task to do when he or she reaches the castle.The game will include sound event, mouse event, keyboard event, graphic character, and background. The first phase of the project will be completed by mid of November, 2014, while the second phase will be completed by mid of December, 2014. The game will run on PCs running Windows XP, Vista, 7 and 8.

6.0 Task Allocation

Manager	Description	Name
Project manager	- Team leader - Guide the discussion of the project - Take decision during the building of prototype game applications - Gain stakeholder's approvals	Miss Jadecrystal Tang Ming Mei
Planning manager	- Develop project schedules - Divide tasks - Ensure optimal level of performance	Miss Nuratiqha Binti Abd Razak
Support manager	- Determine and implement technical needs - Make sure that infrastructure is as efficient - Provide assistance for problems and questions - Manage scoping to improve existing Mario	Mr. Vernon Chien
Quality manager	- Ensure that the requirements and expectations of stakeholders is identified and met. - Monitor progress and performance	Miss Nuratiqha Binti Abd Razak
Customer interface	Propose innovative changes to current user	Miss Tan Sheu

manager	interface of the game	Yeu
Implementation manager	• Identify project objectives • Assess and control project risks	Mr. Vernon Chien
Test manager	• Develop test plan for the game • Check and review the test case	Miss Lee Fui Yee
Process manager	• Process documentation • Review the data and implement any necessary changes	Miss Lee Fui Yee

7.0 Team Goal

The goals we pursue are:

1. Conducting the software project successfully
2. Finishing the software project within the scheduled timetable, scheduled budget and specified guidelines
3. Developing a game which is high standard and without bugs
4. Developing a game which can evoke everyone's childhood memory
5. Having a good communication among team members

8.0 Contribution of Team

Name	Constribution
Miss Jadecrystal Tang Ming Mei	• Leads the project team • Manages the discussions regarding the project • Involves in the decision making in the development of the software project • Wins the stakeholders' approval • Guides the team to reach project goals • Assists in problems and questions that arise during the development of the game

	• Contributes in the actual coding of the game
Miss Nuratiqha Binti Abd Razak	• Manages and distributes the tasks to the project team members • Ensures that all members perform optimally and contributes equally to the project • Monitors project progress • Makes sure that the requirements and expectations are met • Plans the project schedules so that it can be done within the set time scope • Assists in problems and questions that arise during the development of the game • Contributes in the actual coding of the game
Mr. Vernon Chien	• Assists in problems and questions that arise during the development of the game • Identifies project objectives and scope • Manages scope to improve the game • Contributes in the actual coding of the game
Miss Tan Sheu Yeu	• Proposes new ideas and innovative changes that can further improve the game • Assists in problems and questions that arise during the development of the game • Contributes in the actual coding of the game
Miss Lee Fui Yee	• Assists in problems and questions that arise during the development of the game • Manages and reviews the test plans for the game • Conducts documentation of the project • Contributes in the actual coding of the game

9.0 Expected Result

This project will be done within 3 months. Every single task will be done according to the timeline. Each team member contributes to the success of every single task. Every single objective and goal must be achieved.

Mario will be in new level and more interesting. This new develop Mario will involve some educational characteristic that educates player in an interesting way. The new Mario will practice safe, calm, and fun environment.

10.0   Project planning

10.1 Gantt Chart

(refer page 10-13)

10.2 Milestones

(refer page 14-15)

10.3 Deliverables

Deliverables	Description	Output
Proposal	A document which contain the basic information about the propose game	Microsoft Word Document
Milestones	Schedule event that indicates the completion of a major deliverable event of the project.	Microsoft Project Document
Project Plan	A detailed written overview of the project. The plan includes information related to team members, budgets, timelines, deadlines and goals.	Microsoft Word Document
Requirement specification	Describes each of the essential requirements of the games and its external interfaces clearly and accurately.	Microsoft Word Document
Diagram	**Use case diagram** Provide a high level view of the game.	Microsoft Visio Document

	Sequence diagram Define sequence event from the beginning until the end of the game. **State diagram** Describe all of the possible states of the character as events occur.	
Prototype / source code	Mario Game built	Microsoft Word Document
Training programs	Train users on the new version of Mario game.	Microsoft Word Document
Test plan	Documents strategy that will be used to verify and ensure that a product or system meets its design specifications and other requirements.	Microsoft Word Document
Test case	A detailed procedure that fully tests a feature or an aspect of a feature of the game.	Microsoft Word Document
Project reports	Record appropriate information regarding the project.	Microsoft Word Document
Final product	A successfully developed Mario.	Java Application

11.0   References

Bellis, M. (2014). *Computer and Video Game History*. Retrieved from http://inventors.about.com/library/inventors/blcomputer_videogames.htm

Stuart, K. (2010). *Super Mario Bros: 25 Mario facts for the 25th anniversary.* Retrieved from http://www.theguardian.com/technology/gamesblog/2010/sep/13/games-gameculture