

**Faculty of Arts and Sciences**

**Department of Computer Science**

CMPS 253 – Software Engineering

Spring 2017, M. Bdeir

**Software Project Management Plan**

For the Group Term Project:

**Quizup\_2**

*Logo, company name

Description automatically generated*

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**Revision History**

|  |  |  |  |
| --- | --- | --- | --- |
| **Version** | **Date** | **Update Comments** | **Author / Updated By** |
| 1.0 | 3/18/2016 | Initial Document. | Mahmoud Bdeir |
| 1.1 | 3/21/2016 | Added section 3.2, renamed 11.2, changes to the cover page. | Mahmoud Bdeir |
| 1.2 | 2/24/2017 | Edited based on lessons learned from Spring 2016. | Mahmoud Bdeir |
| 1.3 | 3/8/2017 | Removed some sections, re-ordered others. | Mahmoud Bdeir |
| 1.4 | 24/4/2022 | Completed sections 2, 3 ,4,5,6,7 | Iman El Banna |

Table of Contents

[1. Document Specifications and Conventions 6](#_Toc476730065)

[2. Introduction 6](#_Toc476730066)

[2.1. Background 6](#_Toc476730067)

[2.2. Customer or Market Needs 6](#_Toc476730068)

[2.3. Business Objectives and Success Criteria 6](#_Toc476730069)

[3. Vision 6](#_Toc476730070)

[3.1. Vision Statement 6](#_Toc476730071)

[3.2. Story-Telling Diagram 6](#_Toc476730072)

[3.3. Selected Features 6](#_Toc476730073)

[4. Scope 6](#_Toc476730074)

[4.1. Scope of Initial Release 6](#_Toc476730075)

[4.2. Scope of Subsequent Releases 6](#_Toc476730076)

[4.3. Limitations and Exclusions 6](#_Toc476730077)

[5. Business Context 6](#_Toc476730078)

[5.1. Stakeholder Profiles 6](#_Toc476730079)

[5.2. Operating Environment 7](#_Toc476730080)

[5.1. Business Opportunity 7](#_Toc476730081)

[5.2. Complete Product Features 7](#_Toc476730082)

[6. Deliverables 7](#_Toc476730083)

[7. Milestones 7](#_Toc476730084)

[8. Requirements 7](#_Toc476730085)

[8.1. Use Case Diagrams 8](#_Toc476730086)

[8.2. User Stories 8](#_Toc476730087)

[8.3. Screen Mockups 8](#_Toc476730088)

[8.4. System Requirements 8](#_Toc476730089)

[8.5. Non-Functional Requirements 8](#_Toc476730090)

[9. Project Organization 8](#_Toc476730091)

[9.1. Process Model 8](#_Toc476730092)

[9.2. Organizational Structure 8](#_Toc476730093)

[9.3. Organizational Boundaries and Interfaces 8](#_Toc476730094)

[9.4. Project Responsibilities 8](#_Toc476730095)

[10. Managerial Process 8](#_Toc476730096)

[10.1. Management Objectives and Priorities 8](#_Toc476730097)

[10.2. Assumptions, Dependencies, and Constraints 9](#_Toc476730098)

[10.3. Project Risks 9](#_Toc476730099)

[10.3.1. Risk Table 9](#_Toc476730100)

[10.3.2. Discussion of Risks to be Managed 9](#_Toc476730101)

[10.3.3. RMMM Plan for each risk 9](#_Toc476730102)

[10.3.3.1. Risk Mitigation 9](#_Toc476730103)

[10.3.3.2. Risk Monitoring 9](#_Toc476730104)

[10.3.3.3. Risk Management 9](#_Toc476730105)

[10.4. Change Management and Control 9](#_Toc476730106)

[10.5. Monitoring and Controlling Mechanisms 9](#_Toc476730107)

[10.6. Weekly Progress Reports 9](#_Toc476730108)

[11. Technical Process 9](#_Toc476730109)

[11.1. Methods, Tools, and Techniques 9](#_Toc476730110)

[11.2. System Modeling 9](#_Toc476730111)

[11.2.1. Context models 9](#_Toc476730112)

[11.2.1.1. Technical Interfaces 9](#_Toc476730113)

[11.2.2. Interaction models 9](#_Toc476730114)

[11.2.3. Structural models 9](#_Toc476730115)

[11.2.4. Behavioral models 9](#_Toc476730116)

[11.3. Software Documentation 9](#_Toc476730117)

[11.3.1. Javadoc 9](#_Toc476730118)

[11.3.2. Database Model 9](#_Toc476730119)

[11.3.3. Data Dictionary 9](#_Toc476730120)

[11.4. Project Support Functions 9](#_Toc476730121)

[11.5. Configuration Management 9](#_Toc476730122)

[11.6. Quality Assurance and Control 9](#_Toc476730123)

[12. Work Packages, Schedule, and Budget 10](#_Toc476730124)

[12.1. Work Packages (WBS) 10](#_Toc476730125)

[12.2. Sprint Schedule 10](#_Toc476730126)

[12.3. Budget 10](#_Toc476730127)

[13. Project Resources 10](#_Toc476730128)

[13.1. People 10](#_Toc476730129)

[13.2. Hardware and Software 10](#_Toc476730130)

[13.3. Special Resources 10](#_Toc476730131)

[13.4. References 10](#_Toc476730132)

[Appendix A – Table of Figures 10](#_Toc476730133)

[Appendix B – Definitions, Acronyms, and Abbreviations 10](#_Toc476730134)

[Appendix C – SPMP Grading Criteria 10](#_Toc476730135)

# Document Specifications and Conventions

# Introduction

## Background

QuizUp is a competitive multiplayer mobile trivia game in which players select a subject and compete against one another to see who can answer the most questions correctly in the shortest period of time. Each player receives points based on how quickly they answer the question, with 0 points provided for incorrect responses, and after a series of 7 questions, the player with the most points wins the match.

## Customer or Market Needs

This game is not only entertaining but also educational , it gives an endless stream of general knowledge questions. Players can put their knowledge to the test by comparing themselves to others in any subject they want where they will pick up new information. This game can also assist people who are preparing for numerous competitions and require questions relevant to specific subjects and their combinations, which are currently unavailable on any app. Other mobile trivia games exist, but they are plagued by advertisements and corporate greed, whereas ours will be ad-free.

## Business Objectives and Success Criteria

Quizup is a great way to use this ability to reinforce existing information while teaching something new, which is a potent tool in an educator's inventory. Plus, when combined with gamification components like points, teams, or badges, a basic trivia game can go a long way toward enhancing your learner's knowledge retention while also delivering fun and engagement. Not to forget that by exercising recall, trivia games can improve cognitive growth and memory. Correctly answering trivia questions is also a pleasurable experience. When this happens, dopamine is produced, and learners get a rush when they answer a question correctly. This influx of dopamine gives your training material a physical boost.

The app will be deployed on App Center to guarantee that it is built and launched successfully. It will also be rigorously tested by two people to ensure that the multiplayer function is bug-free, as well as by many others who aren't developers to confirm that it operates smoothly on every phone with regular internet connection, providing us with both quantitative and qualitative data to make sure we developed an educative yet entertaining app .

# Vision

## Vision Statement

We plan to diversify the subjects that are included, and add more questions based on our users demands. Additionally, we would like to introduce difficulty levels (easy, medium, and hard) to allow a larger user base to enjoy our app. Furthermore, we plan on allowing the users to set their own personalized questions to enjoy the game with their friends and families. Finally, we would like to build features that allows us to access the education system. Implementing school curriculums, will help the users learn their required materiel in a fun way especially for children and students with learning disorders while allowing their teacher to monitor their progress.

## Story-Telling Diagram

## Selected Features

The most important features of the app are:

* multiplayer trivia game with a randomly assigned player
* Challenge a friend to a multiplayer trivia game

# Scope

## Scope of Initial Release

Our initial goal is to create a multiplayer trivia game in which you can play with a randomly assigned participant who shares your interest in the subject, or challenge a friend to a specific subject of your choosing. You can see your own ranking as well as the rankings of all other participants on the leaderboard by nation or subject.

## Scope of Subsequent Releases

We'll strive to include many more features and modes in future updates, such as a survival mode where you may take a quiz on your own for practice or even a 40-player quiz where you can compete with friends. Additional subjects will be added, as well as a feature that allows you to build your own quiz with questions of your choice .

## Limitations and Exclusions

Quizup is an online trivia game in our current release since participants cannot be randomly assigned without an internet connection. Due to our time constraints, we haven't yet developed a feature that allows you to build your own quiz, but we are definitely aiming to do so in the future.

*What you cannot do, and what you will not do and why.*

# Business Context

## Stakeholder Profiles

Table on the next page

|  |  |
| --- | --- |
|  |  |

|  |  |  |
| --- | --- | --- |
| Stakeholder: Mahmoud Bdeir | Ref. No.: 139483 | Date: 25/4/2022 |

|  |  |
| --- | --- |
| Why are you engaging this stakeholder? | This stakeholder has a lot of connections and can help us find a lot of investors. Not only that, but he also has a strong background in software engineering, which came in handy during the project. |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Power  (rate the control or resources this stakeholder can use to promote or oppose the project objectives) |  | High | Medium | Low or None |  | OVERALL SCORE (tick one) | |
| Economic assets | x |  |  | High/Med | Low/No |
| Authority | x |  |  | ( P ) x |  |
| Ability to coerce/force | x |  |  |  | |
| Prestige/status | x |  |  |
| Social ties/connections | x |  |  |
| Info/communication control | x |  |  |
| Knowledge and skills | x |  |  |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Interests  (rate the net gains or losses for the stakeholder arising from the project) | Potential gains for stakeholder: | | ++ | | | | |
| Potential losses for stakeholder: | | 0 | | | | |
|  | | | | | | |
| High Net Gains or Losses | Medium Net Gains or Losses | | Low or Neutral |  | OVERALL SCORE (tick one) | |
| ++ or -- | + or - | | 0 | High/Med | Low/No |
| ( I ) x |  |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Legitimacy  (rate the degree to which other parties recognise the three Rs of the stakeholder) |  | High | Medium | Low or None |  | OVERALL SCORE (tick one) | |
| Rights | x |  |  | High/Med | Low/No |
| Responsibilities | x |  |  | ( L ) x |  |
| Resolve | x |  |  |  | |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| CLIP Descriptor and Engagement Type  (circle CLIP code for the stakeholder, based on overall score for each category [e.g. PL]) | PIL  Dominant | PI  Forceful | PL  Influential | P  Dormant | L  Concerned | IL  Vulnerable | I  Marginal |
| Suggested engagement types (circle all appropriate) | | | | | | |
| Involve  Collaborate  Empower | Inform  Consult  Involve | Consult  Involve  Collaborate | Inform  Consult | Involve  Collaborate  Empower | Collaborate  Empower | Collaborate  Empower |

|  |  |  |
| --- | --- | --- |
| Stakeholder: Players | Ref. No.: 129472 | Date: 25/4/2022 |

|  |  |
| --- | --- |
| Why are you engaging this stakeholder? | This stakeholder will provide us with feedback to make sure we reached our goal in the app as well as test it by playing against each others. |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Power  (rate the control or resources this stakeholder can use to promote or oppose the project objectives) |  | High | Medium | Low or None |  | OVERALL SCORE (tick one) | |
| Economic assets |  | x |  | High/Med | Low/No |
| Authority |  |  | x | ( P ) x |  |
| Ability to coerce/force |  | x |  |  | |
| Prestige/status | x |  |  |
| Social ties/connections |  | x |  |
| Info/communication control |  | x |  |
| Knowledge and skills |  |  | x |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Interests  (rate the net gains or losses for the stakeholder arising from the project) | Potential gains for stakeholder: | | ++ | | | | |
| Potential losses for stakeholder: | | 0 | | | | |
|  | | | | | | |
| High Net Gains or Losses | Medium Net Gains or Losses | | Low or Neutral |  | OVERALL SCORE (tick one) | |
| ++ or -- | + or - | | 0 | High/Med | Low/No |
| ( I ) x |  |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Legitimacy  (rate the degree to which other parties recognise the three Rs of the stakeholder) |  | High | Medium | Low or None |  | OVERALL SCORE (tick one) | |
| Rights | x |  |  | High/Med | Low/No |
| Responsibilities |  | x |  | ( L ) x |  |
| Resolve |  | x |  |  | |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| CLIP Descriptor and Engagement Type  (circle CLIP code for the stakeholder, based on overall score for each category [e.g. PL]) | PIL  Dominant | PI  Forceful | PL  Influential | P  Dormant | L  Concerned | IL  Vulnerable | I  Marginal |
| Suggested engagement types (circle all appropriate) | | | | | | |
| Involve  Collaborate  Empower | Inform  Consult  Involve | Consult  Involve  Collaborate | Inform  Consult | Involve  Collaborate  Empower | Collaborate  Empower | Collaborate  Empower |

## Operating Environment

This app could be useful in schools and universities. It can help students study better because it provides educational questions in a fun way; students can use the quizzes as a practice for their exam or even while studying since everyone gets excited when faced with a challenge, which will motivate them to study in order to correctly answer the questions. Not only that, but it would be advantageous for professors to be able to teach their courses in an entertaining way, and Quizup will hold students' attention, allowing them to concentrate better. This program would be beneficial not only to educational institutions, but anybody who has to take a test. A driver's license exam, for example, can be practiced with Quizup to help you memorize faster.

*Describe the environment within which the software will operate. This is non-technical (not hardware/software) but rather the business environment /context within which your software will operate. For example you could describe how different departments will use the software and how it integrates with other existing systems.*

## Business Opportunity

Due to the fact that the original Quizup game is no longer available, this game could be sold to an investor and published so that anybody could play it and test their knowledge.

*If this software is to generate money then describe how will this software generate revenues and from whom.*

## Complete Product Features

|  |  |  |
| --- | --- | --- |
| **ID** | **Feature** | **Value** |
| 222 | Multiplayer Game with a randomly assigned player | **8/10** |
| 223 | Challenge a friend to a game | **6/10** |

# Deliverables

|  |  |  |  |
| --- | --- | --- | --- |
| **Number** | **Date** | **Deliverable** | **Responsible Party** |
| 1 | 3/2/2022 | Vision and Scope Document | Safi Fakih |
| 2 | 4/2/2022 | Draft User Stories & Use Case Diagram | Hussein Dakroub |
| 3 | 20/3/2022 | Screen Mockups | Iman El Banna |
| 4 | 10/2/2022 | Prototype 1 | Safi Fakih |
| 5 | 6/3/2022 | Detailed Design Document | Iman El Banna |
| 6 | 24/4/2022 | Draft SPMP | Iman El Banna |
| 7 | 30/3/2022 | UAT Test Cases | Ali Yassine |
| 8 | 7/4/2022 | Known Issues | Ali Yassine |
| 9 |  | Release Notes | Hussein Dakroub |
| 10 | 27/4/2022 | Compiled And Deliverable Machine Code (Binaries) | Ali Yassine |
| 11 | 29/4/2022 | SPMP (print and MS Word file) | All of the team members |
| 12 | 30/4/2022 | Deployment (Demo of the Software) | All of the team members |

# Milestones

|  |  |  |
| --- | --- | --- |
| **Number** | **Date** | **Milestone** |
| 1 | 10/2/2022 | Prototype 1 |
| 2 | 23/4/2022 | Implementation Complete |
| 3 | 24/4/2022 | Technical Preview (Alpha Testing Complete) |
| 4 | 24/4/2022 | Code Freeze |
| 5 | 25/4/2022 | Release Candidate (Beta Testing Complete) |
| 6 | 29/4/2022 | RTM Ready |
| 7 | 29/4/2022 | Deployment Complete |

# Requirements

## Use Case Diagrams

## User Stories

## Screen Mockups

## System Requirements

## Non-Functional Requirements

# Project Organization

## Process Model

## Organizational Structure

## Organizational Boundaries and Interfaces

## Project Responsibilities

*Which team member is responsible for what tasks*

|  |  |  |
| --- | --- | --- |
| **ID** | **Task** | **Assigned Member** |
|  |  |  |

# Managerial Process

## Management Objectives and Priorities

*Scope, schedule, and cost: what tradeoffs will you exercise?*

*[For most projects, all three parameters—scope, schedule and cost (resources)—are important. Setting priorities enables the project team to determine which of the three is most essential. These priorities support scope planning, decision making, constraint management and plan optimization, negotiating project changes, and integrated change control.   
  
Consider the tradeoffs between scope, schedule and cost by specifying small changes to the stated project objective. Would it be worse to slip the schedule a week beyond the deadline, or increase the project budget by 5 percent? Would it be more appropriate to drop a feature of a project deliverable or to add staff to the project team? Would a slightly longer project that delivers a more robust product be desirable? Questions such as these often arise late in a project, but it is better to deal with them early.   
  
In exploring the costs, pain and appropriateness of small changes, relative priorities emerge. Document priorities using a three-by-three matrix. Place one mark in each row, showing which parameter is constrained (least flexible), which one is to be optimized (somewhat flexible), and for which of the three change may be accepted (most flexible).*  
*Consider the options (there are six) and discuss them with your project team to develop consensus on the priorities. Next, validate your prioritization with your project sponsors and stakeholders and make modifications, if needed, based on their feedback. For some projects, agreeing to constrain two of the three parameters may be necessary, but it is always unrealistic to limit all three, especially prior to project plan development. Strive for agreement and clearly document the lowest priority].* [*Credits*](http://www.amanet.org/training/articles/Project-Priorities.aspx)

## Assumptions, Dependencies, and Constraints

## Project Risks

## Risk Table

## Discussion of Risks to be Managed

## RMMM Plan for each risk

## Risk Mitigation

## Risk Monitoring

## Risk Management

## Change Management and Control

## Monitoring and Controlling Mechanisms

## Weekly Progress Reports

# Technical Process

## Methods, Tools, and Techniques

## System Modeling

## Context models

## Technical Interfaces

## Interaction models

## Structural models

## Behavioral models

## Software Documentation

## Javadoc

## Database Model

## Data Dictionary

## Project Support Functions

## Configuration Management

## Quality Assurance and Control

# Work Packages, Schedule, and Budget

## Work Packages (WBS)

*Specify the work packages for the activities and tasks that must be completed in order to satisfy the project agreement. Use* [*www.draw.io*](http://www.draw.io) *to draw a hierarchical break down of all the work that has to be done in order to write and deliver the software. Do not use generic tasks that are applicable to any software like (product planning, design, development, and deployment) that’s a sure zero.*

## Sprint Schedule

|  |  |  |
| --- | --- | --- |
| **Sprint** | **Time Period** | **Description Of The Potentially Shippable Product** |
| 1 |  |  |
| 2 |  |  |
| 3 |  |  |
| 4 |  |  |
| 5 |  |  |
| 6 |  |  |
| 7 |  |  |
| 8 |  |  |

## Budget

# Project Resources

## People

## Hardware and Software

## Special Resources

## References

# Appendix A – Table of Figures

# Appendix B – Definitions, Acronyms, and Abbreviations

# Appendix C – SPMP Grading Criteria

1. **Document Delivery Method**

Final SPMP should be printed in color using high quality print (laser) and bound using spring/spiral binding (no comb binding)



Figure 1 Spring/Spiral Binding



Figure 2 Comb Binding

1. **Completeness and Thoughtfulness**

Document must be complete and well thought out. Do not undercut the content and at the same time do not write filler-type content. Think about each section carefully, research what others have done, and ask questions when you need to.

1. **Professionalism**
   1. English: Write proper English, pay attention to both spelling and grammar.
   2. Proper Formatting: Fonts, Formatting, Indentation, Spaces, etc.
2. **Timely Delivery**

Delivery the document on time as called for by the client (the instructor). Clients generally don’t care about your circumstances or the validity of your excuses. They may show empathy but not necessarily award you the project.

1. **Delivery of Electronic Copy**

In addition to the printed copy you must submit an electronic copy as a MS-Word document