development of a computer system for a Minecraft Game System.

OOSE PROJECT Plan 2017

Students :

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# **Project Scope**

## **The work to be accomplished**

The main objective of this project is the develop an “**Sample Software Engineering Model**” of a computer system for a “**Minecraft Game System”**. The game is intended and should be suitable for gamers over age of 5 year. The model would be developed using Object Oriented Concepts. The concept would be presented using Unified Modelling language.

## **The purpose this project?**

The project work being under taken as part of academic presentation for “**Object Oriented Software Engineering Module”**

Since this is an academic project with time restrictions only of a sub section of Minecraft would be modelled. We have chosen to model the “**Survival Mode of game play for Minecraft**”

## **Stakeholders**

The project is presented to National College of Ireland

Vinit Date

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## **What’ work is out of scope**

There will be no Software Implementation of the project. All material of this project is for academic purposes only.

## **Objectives**

## Technical objectives

## Schedule objectives

## **Deliverables**

## Deliverables Group = GREEN Individual = BLUE

For the above Problem description:

1. [Group] Identify the actors.(5 Marks)
2. [Group] Construct a Use Case Model. (5 Marks)
3. [Individual] Describe in detail any use case from the use case model. The use case must contain an alternate flow. (10 Marks)
4. [Group] Create a Project Plan to deliver your application. The plan must include a minimum of 3 nesting levels and include all the major tasks and deliverables. (10 marks)
5. [Individual] Create a conceptual class diagram of the chosen use case. The conceptual class diagram should demonstrate the use of many of the following: attributes, relationships, navigability, association class, multiplicity and composition. (10 Marks)
6. [Individual] Create a glossary that lists and defines all the terms that require clarification. (5 marks)
7. [Individual] Draw a System Sequence diagram from the conceptual class diagram. (10 Marks)
8. [Individual] Develop Contracts for a minimum of two of the system operations in the system sequence diagram. (10 marks)
9. [Individual] Draw Communication diagrams based on the contracts. The communication diagrams should demonstrate the use of design patterns. (10 marks)
10. [Group] Presentation (how well does the package of models look?). (5 marks)
11. [Group] Use of a UML tool. (10 marks)
12. [Group] Put together a Testing Plan outlining how you propose to validate the application and verify that it is free of defects. (10 marks)

## **Success Factors**

* Demonstrate the conceptual, practical and technical skills of planning and monitoring a project plan using an appropriate CASE tool
* Describe in detail the theory, concepts and methods pertaining to the Unified Modelling Language (UML).
* Create requirements using use case modelling concepts.
* Demonstrate conceptual and technical skills in the analysis, design and implementation of a software system using Object Oriented Concepts.

# **Project Team Roles and Responsibilities**

# **Implementation**

## Deliverable Timeline

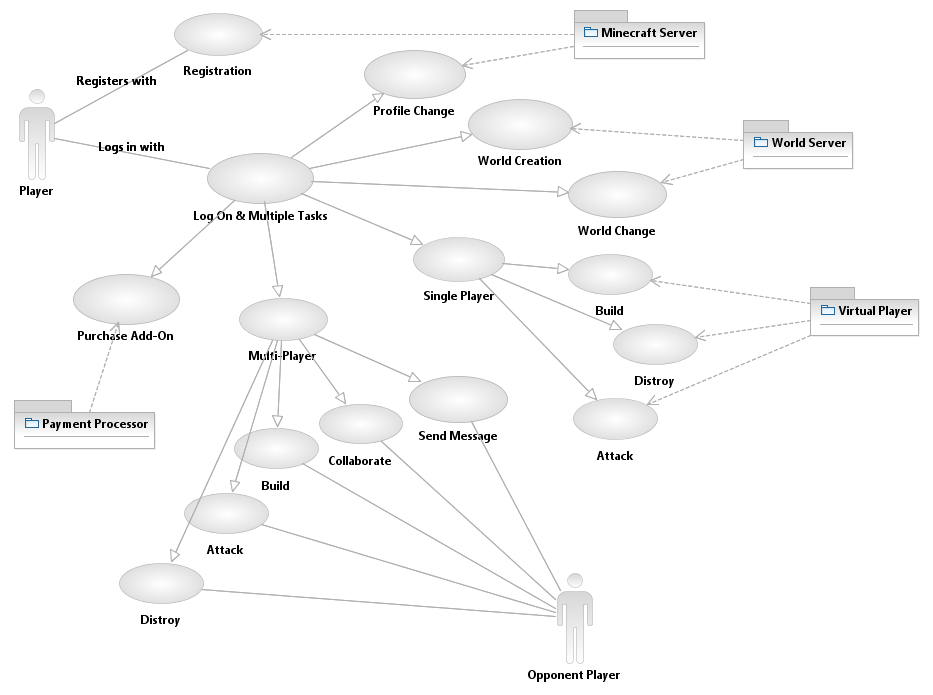
## Implementation (Deliveries)

### Identified the actors

* Player
* Minecraft Server
* World Server
* Virtual Player
* Opponent Player
* Payment processor

### Construct a Use Case Diagram

Based on earlier step of identifying actors and use cases, the Use Case Diagram has been plotted using IBM’s Rational Modeler Application tool.



### Describe Use Cases

1. Player Register with Minecraft server
2. Player Logs in with Minecraft server.
3. Player Logs in, The player has option to Create or Update world with World Server
4. Player Logs in Start Single Player Game Build/Destroy/Attack with
5. opposite Virtual player.
6. Player Logs in Starts multiplayer game Cooperate/Build/Destroy/Attack/Send Message with opponent player
7. Player logs in buys add on

# **Testing and Acceptance Criteria**

For each use case acceptance criteria is as

## Player Register with Minecraft server

#### Capture and Validate Name, Address, Date of Birth and email for new user.

#### Validate Address for country availability.

#### Validate Date of Birth

#### Validate email

## Player Logs in with Minecraft server.

#### Login is not locked or expired.

#### If login fails option to login alternatively example retrieve / change password or use OTP

#### If paid account option to top op

#### If free account invite to change to pay model.

## Player Logs in, The player has option to Create or Update world with World Server

#### Can create world

#### Can update world

## Player Logs in Start Single Player Game Build/Destroy/Attack with opposite Virtual player.

#### A virtual player can be created

#### Player can play with virtual player.

## Player Logs in Starts multiplayer game Cooperate/Build/Destroy/Attack/Send Message with opponent player

#### Can Cooperate/Build/Destroy/Attack/Send Message with opponent player

## Player logs in buys add on

#### Payments can be processed for valid user to buy add ons

# **Glossary**