ZORAX - THE RUN GAME

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Contents

1 Introduction

1.1 System Introduction

Zoraz the run game is a android based game with a player to collect coins on his way to his mission. This game works in a 3D environment. It has a character of an alien. The alien has certain characteristics like running, jumping and collect coins and score boosters. Basically, the game revolves around the story of an alien which came from another planet, his spaceship crashed somewhere in the earth. He is on his way to find spaceship by collecting coins, more he collects coins, more he will be near to find his spaceship. In finding his spaceship he will face many obstacles and hurdles. Once he makes full contact with the obstacle the game will automatically over. But if the player bump into the obstacle he will remain alive. Once you die the game will be restarted and you must do that level again. There are certain levels of this game, and a 3D environment is provided.

1.2 Background of the System

The game we are developing is a stand-alone game. There are no versions of it. There are many other games who are related with the idea of running but our idea is different in such a way that our game is a story-based game, and the interface is user friendly. It is a learning and anti-stress game that can make you feel relax. It can boost attention, improve cognitive skills, and can keep you in shape as well.

1.3 Objectives of the System

The major objective of developing and making this game is to provide an environment or an opportunity to people who want to release stress and feel relax. They can play it while coming back home from work, during lunch break or before going to bed, it might be good for them.
The major objectives of our project are: -

- Provides entertainment for the people.
- Improve your cognitive skills.
- Boost attention
- Release Stress
- Fun for the people who like story-based games.

1.4 Significance of the System

Our game has a great significance in the gaming community as we are targeting people who like story-based games and want to release stress and feel relax. They can enjoy an experience by just sitting at their home and that is our main aim. By the time we will put our project into mainstream line and get people to download and play this game.

2 Overall Description

1.5 Product Perspective

Our game is a self-sustained game. Our project is unique game and there are no previous versions of this game. This game provides us a 3-D environment as well. There are many people in gaming that have developed running games, but we are providing story in the game which makes us different from them. We are providing upgraded graphics and features.

1.6 Product Scope

The Scope of our product is bounded that means we are targeting a specific community of people who want to release their stress and like story based games.it is a single player game one player can play at a time. As the level completes the player progresses to another level with the reward of his spaceship clue or part. The game allows to collect coins freely in the environment.

1.7 Product Functionality

This website will provide the functionalities:

- The game will have video of how alien crashed his spaceship.
- Player is a part of environment where they can move. This functionality controls the movement of alien in the game.
- Player will collect coin while running. This functionality controls the collecting of coins in the environment.
- The game will have 3 different levels.
- The game will have video of how alien crashed his spaceship.

1.8 Users and Characteristics

Main actors that'll be interacting with system will be:

User	Characteristics
Player	User or player must know how to access the menu and able to start the game from the main menu. The user should know about the aesthetics and functions of the game such as map from which he can choose his level. User should target to collect as many coins to complete the level to go near to find his spaceship.
Most Important users	This game will be highly interesting for those who are more into gaming and specifically enjoy story games. They will be more involved and enjoy the game than the people who are not much interested in these types of games.
Less important users	It is difficult to satisfy the people with this game who don't like running games. They are interested in other games, or they have different taste in gaming.

1.9 Operating Environment

Our project will operate on:

- This project requires mobile to have 100mbs to operate.
- The character moves with touch screen.

3 Specific Requirements

3.1 Functional Requirements

This section includes all the functional requirements in our project in a consecutive manner. It will help to explain all the functionalities of our project. It means what our system or our project will do, or the tasks included in it what will be their functionalities. It has listed all the functional requirements. Such as: -

3.1.1 Character movement

Title	Character movement
Description	The player should move straight, left, and right through the commands of touch screens controls..
Criticality	Critical
Cost and Schedule	1 week
Risk	No
Dependency with another requirement	

3.1.2 Access to levels: -

Title	Access to levels
Description	The player should have access to the map where he can choose the levels.
Criticality	Important
Cost and Schedule	5 Days
Risk	Not showing all levels
Dependency with another requirement	

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3.1.3 Mystery boxes: -.

Title	Mystery boxes

Description	The player should have access to the level where he can collect mystery boxes
Criticality	Critical
Cost and Schedule	4 Days
Risk	No
Dependency with another requirement	

3.1.4 Obstacles: -

Title	Obstacles
Description	The player shall be able to avoid and escape from obstacles in the game to get alive in the game.
Criticality	Important
Cost and Schedule	3 Days
Risk	No
Dependency with another requirement	

3.1.5 Collect Coins: -

Title	Collect Coins
Description	The player shall be able to collect coins in the game.
Criticality	Critical
Cost and Schedule	3 Days
Risk	No
Dependency with another requirement	Mystery boxes, Obstacles

3.1.6 Loading Screen

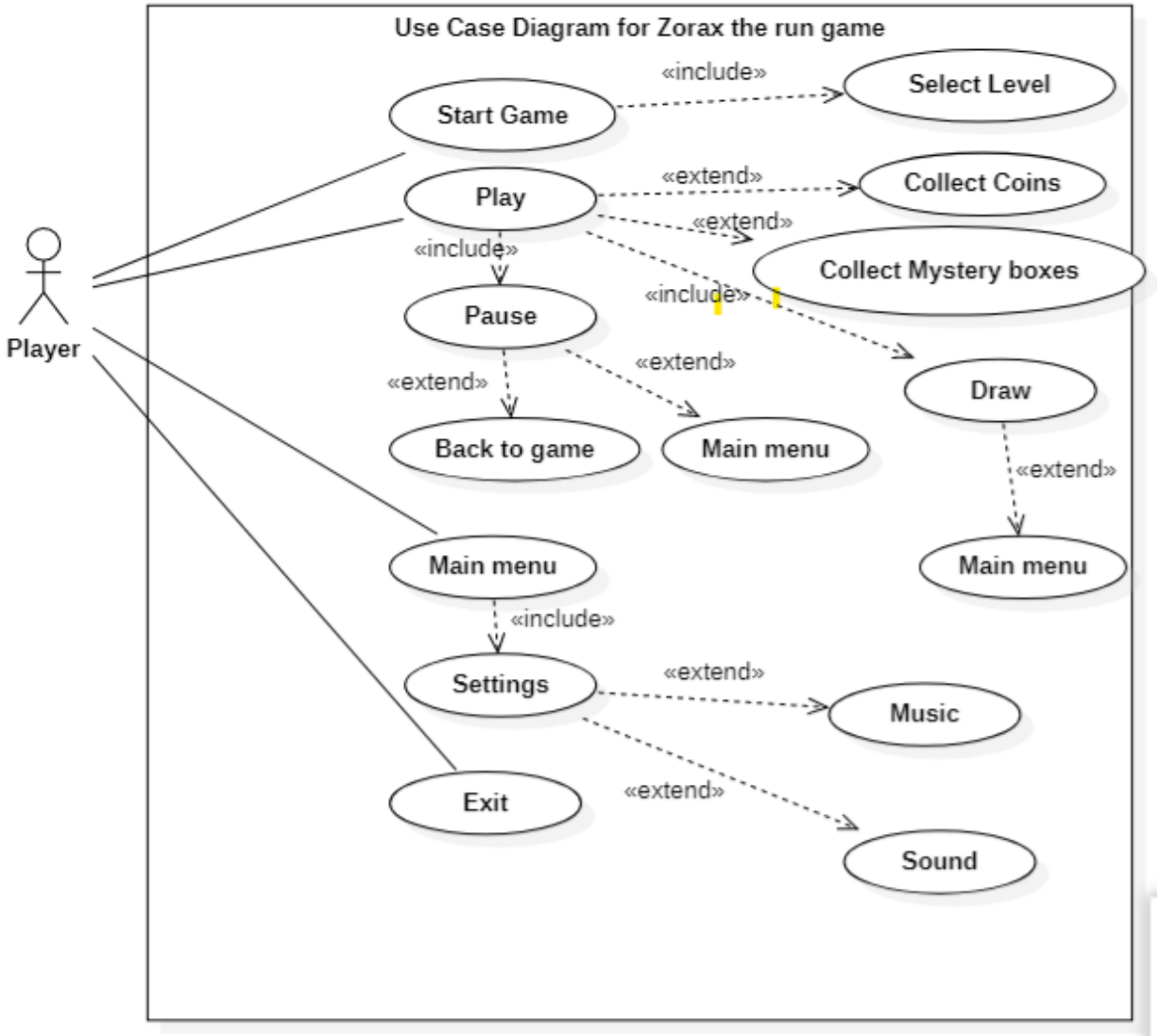
Title	Loading Screen
Description	A loading screen will be shown , while the game is loading to start.
Criticality	Critical
Cost and Schedule	3 Days
Risk	Interface responsiveness

Dependency with another requirement	Access to levels

3.2 Behaviour Requirements

3.2.1 Use Case Diagram:

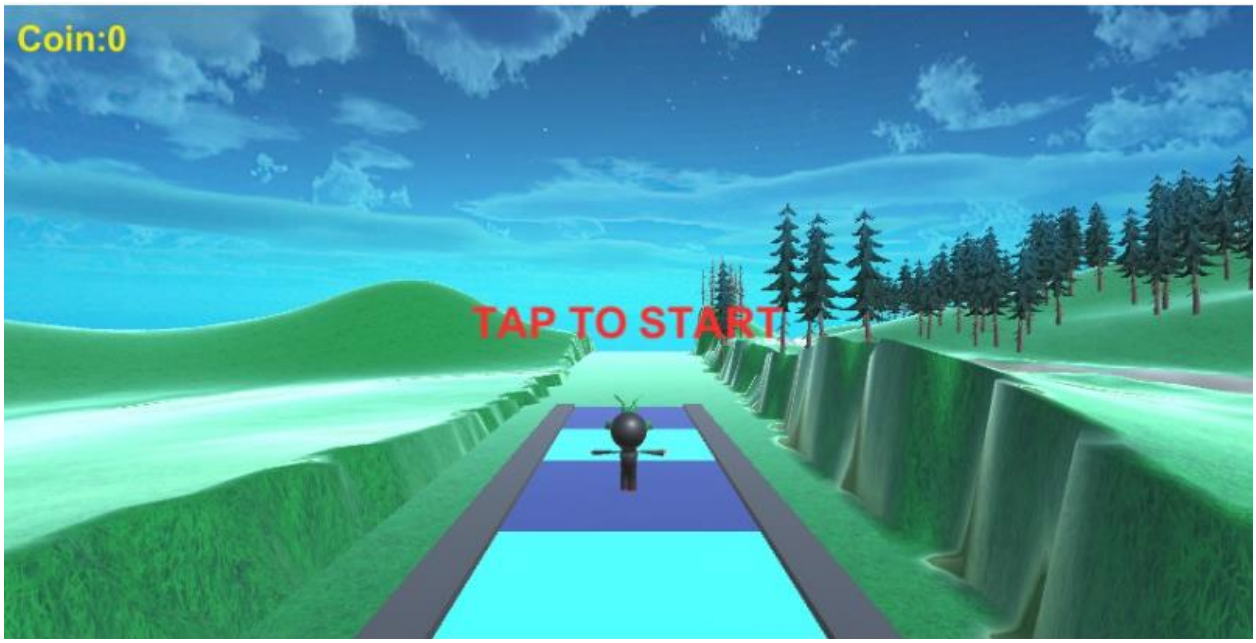
A Use Case Diagram at its simplest is a representation of a user's interaction between the primary users and secondary users. A use case diagram can identify the different types of users of a system and the different use cases and will often be accompanied by other types of diagrams as well.



3.3 External Interface Requirements

3.3.1 User Interfaces

The interface of our game is user-friendly and interactive. The user will not find any difficulty and hassle to understand it. User can play the game easily whenever he wants. User will interact with the touch screen to play the game. The user will move the character with a touch screen forward, right and left. The interface of our game is ravishing and simple that a beginner can easily understand it and can access to the functions like menu and map.




Coins:0
GameOver
Replay
Quit


Coins:16

3.3.1.1 GUI: -

The game has a menu that means you can get access to the game by selecting options from menu and play the game. The game will have 2 menus like when starts main menu will be shown and when user want to get pause the game while playing pause menu will be shown.

- **Main menu:**

    1. Start game
    2. Settings
    3. Map
    4. Sound
    5. Quit

- **Pause menu:**

    1. Resume game
    2. Options
    3. Back to game

3.3.1.2 CLI:

Our project does not contain any command line interfaces.

3.3.1.3 API:

our project does not contain any API.

3.3.2 Hardware Interfaces

The project will operate on android interface. Touch screen will be used to play the game. The touch screen will allow the character to move forward and jump, run and collect coins.

3.3.3 Software Interfaces

Android operating system is required to run this game on the mobile.

The game involves following tools.

- Unity 3d
- Blender
- Adobe Illustrator
- Photoshop

3.3.4 Communications Interfaces

There will be no communication interfaces as game will work offline.

4 Other Non-functional Requirements

4.1 Performance Requirements

To run this game memory storage of at least 500 MBS is required. Ram requirement is minimum 4GB.When user taps on a game icon the first screen should be shown in 1-2 seconds. The game is required not to take more than 1 minutes to start and should not take more than 1 or 2 minutes to exit the game.

4.2 Safety and Security Requirements

The safety and security requirements of our game are:

- Developer should create backup of the game to avoid any data loss so that game should be secure.
- There should be no glitches in the game which cause the game to crash.

4.3 Software Quality Attributes

4.3.1 Usability:

The interface of our project should be simple yet ravishing that the user can easily access it, play the game, enjoy the experience even though if he hasn't played any game previously.

4.3.2 Performance:

The game is accessible and user friendly. User can access it and play the game anytime he wants. The game is available 24/7 for the user. You can play it while commuting back home from work, during lunch break or before going to bed.

4.3.3 Security:

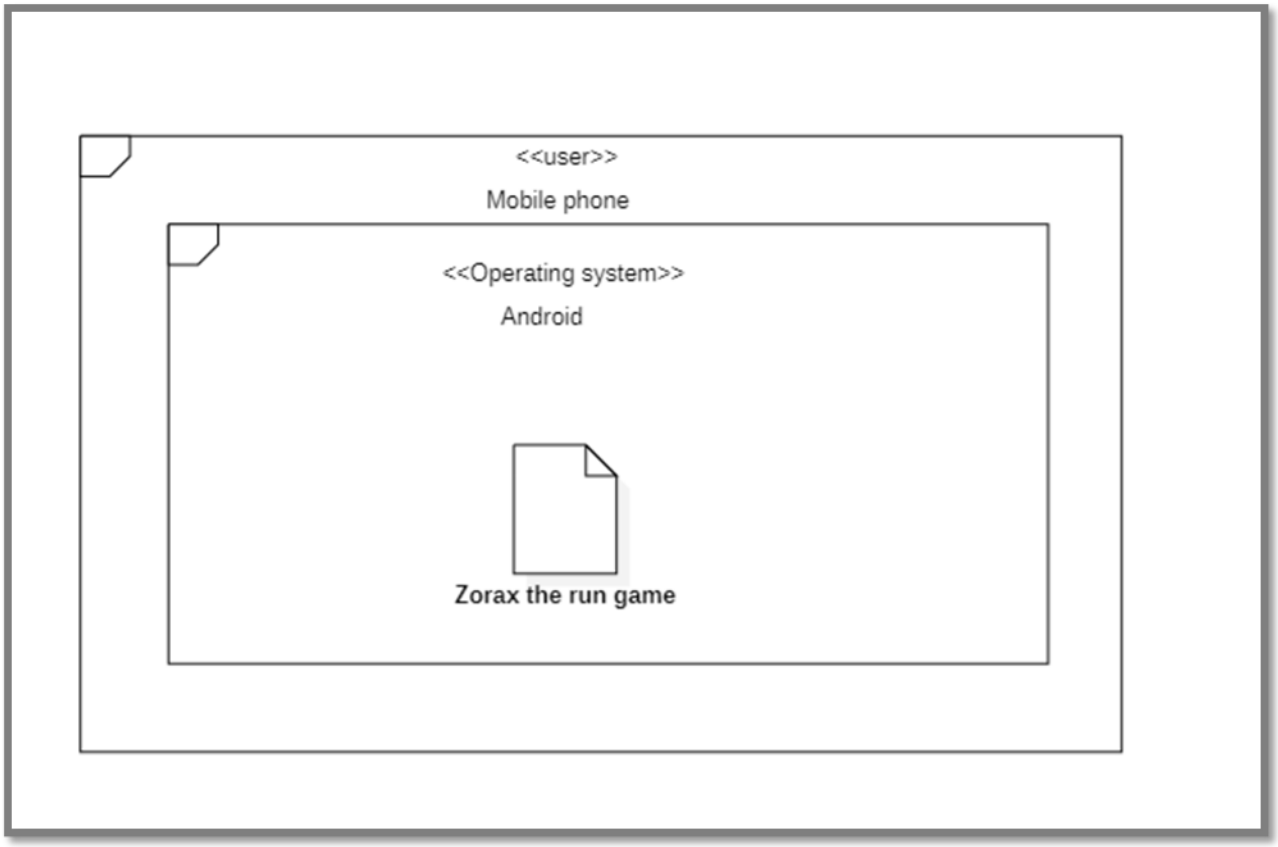
Developer should create backup of the game to avoid any data loss so that game should be secure. There should be no glitches in game which cause the game to crash.

4.3.4 Serviceability:

Our game will be designed with easy - to – use interface having capabilities to maintain our game.

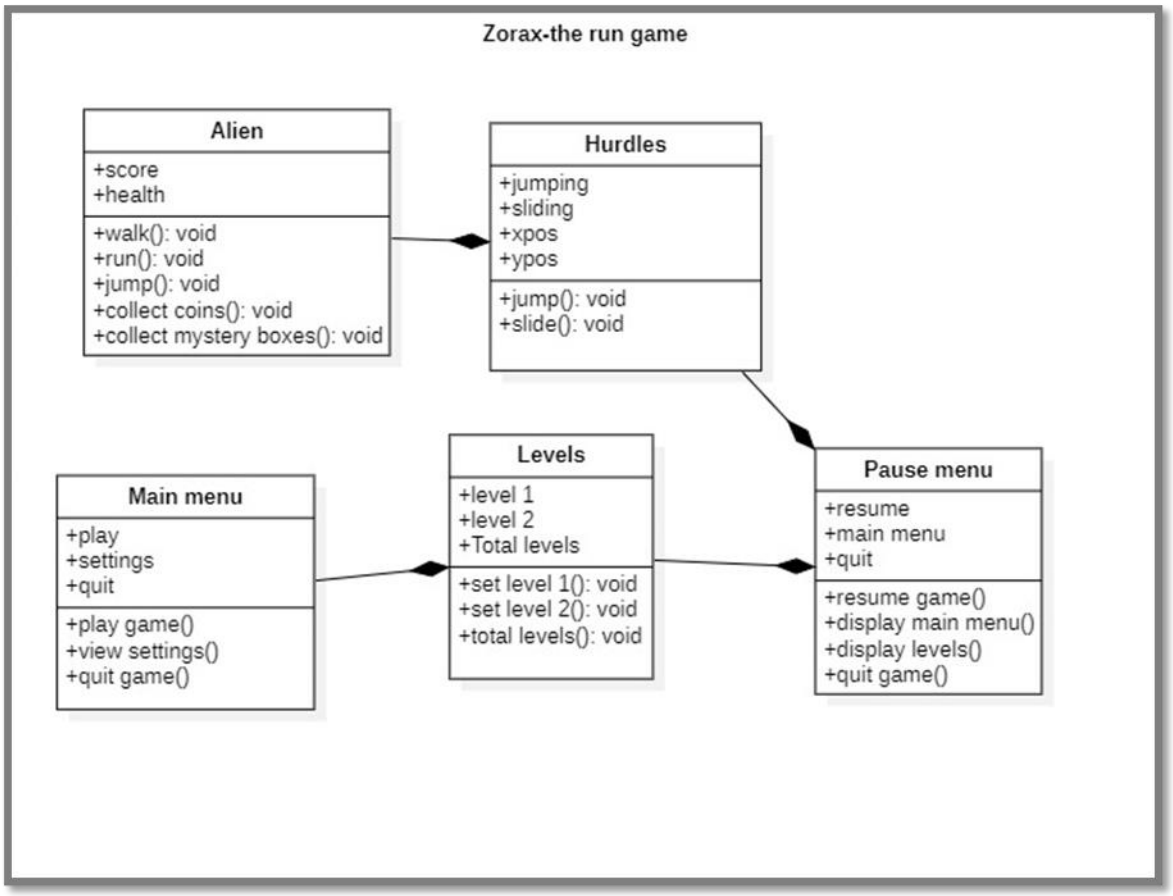
5 Design Description

5.1 Composite Viewpoint



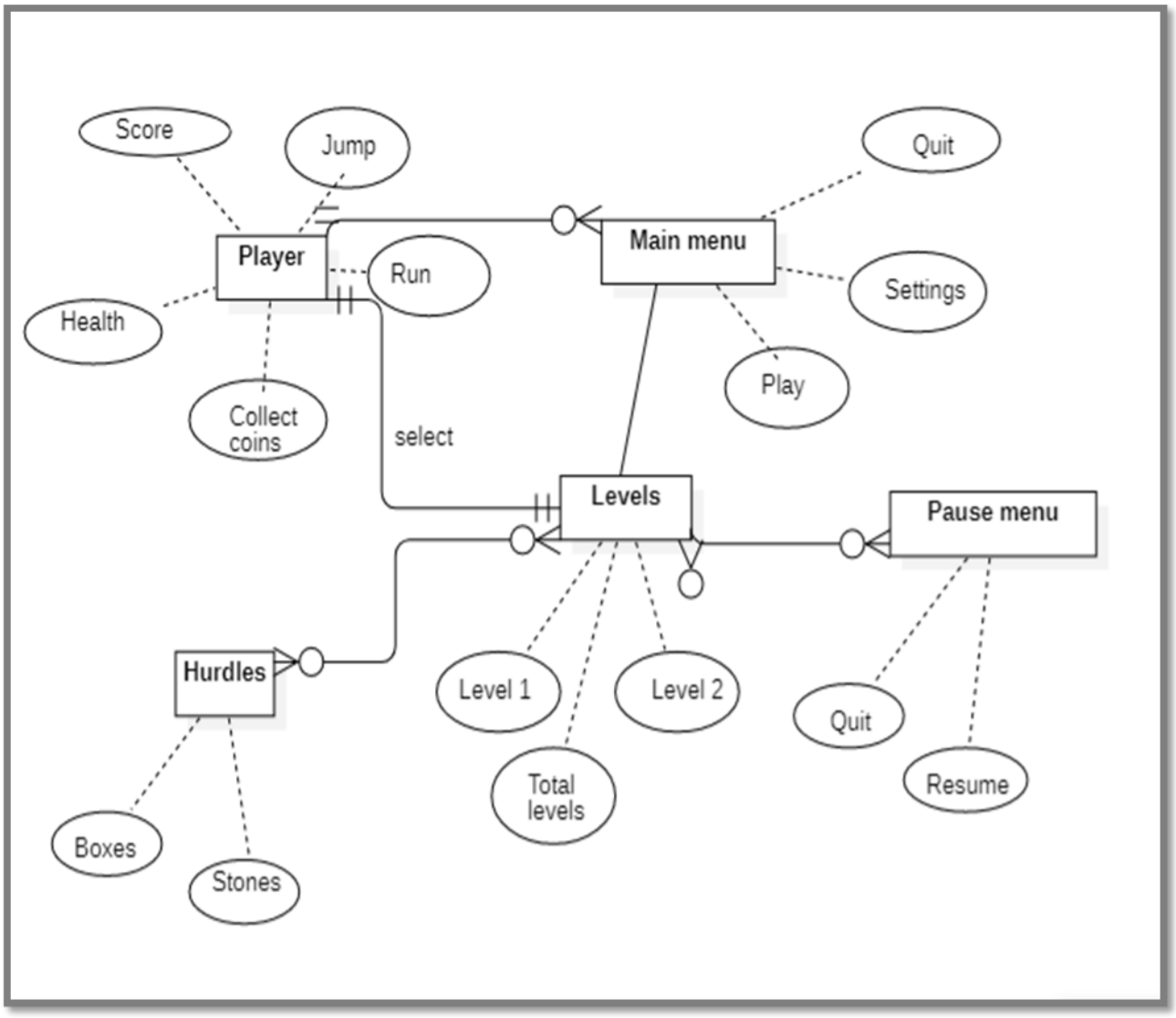
5.2 Logical Viewpoint

A class diagram in UML is a type of static structure diagram that describes the structure of a system by showing the system's classes, their attributes, operations, and relationships among the objects. Class diagram is the basic building of object-oriented modeling



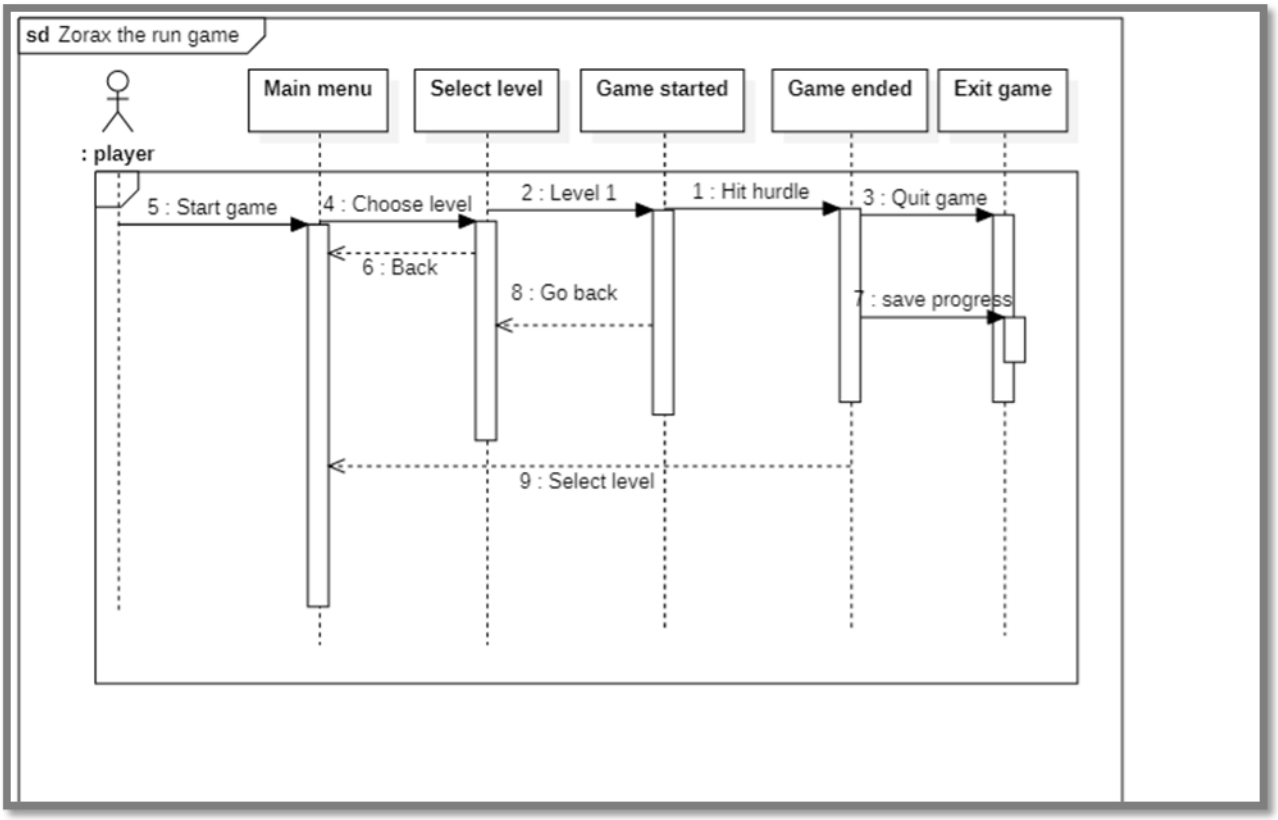
5.3 Information Viewpoint

An Entity Relationship Diagram (ERD), also known as an entity relationship model, is a graphical representation that depicts relationships among people, objects, places, concepts, or events within the system.



5.4 Interaction Viewpoint

A sequence diagram simply depicts interaction between objects in a sequential order i.e., the order in which these interactions take place.



5.5 State Dynamics Viewpoint

A state machine diagram consists of states, transitions, events, and activities. State Machine diagrams are used to illustrate the dynamic view of a system