

IN PARTNERSHIP WITH PLYMOUTH UNIVERSITY

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Signed on behalf of the group:

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Overall mark _____% Assessors Initials _____ Date _____

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Overview / Introduction

Mobile games are very popular in present .Most of the people in the world used to play mobile games for their entertainment and during their leisure time. Also, mobile games have become an indispensable part of people in today's world. At the end of a long and tiring work we all like to play a mobile game and relax our minds. Many mobile games improve our mind and thinking power. Due to these reasons games have become popular among everyone, young and old alike. So we decided to develop a game that everyone can play with fun. 'Snake and ladder game' is a board game that we all know. When such a fun game is played through a mobile application, it is more efficient and more interesting. Besides, a board game cannot be played from anywhere at any time. And it cannot be played by a single person. Because of these reasons that we decided to add new features and convert the board game into a mobile application .

There are hundred boxes in this game(10*10). Furthermore, the board includes with some ladders and snakes. And we have to play this game by using a dice. Players can enter this game only if six falls. After that if a player gets six while playing the game, he will get a double chance. The snake and ladder game can be played by maximum four people and minimum one person. When one player plays, another player is automatically added. While playing the game, the players have to go down to a lower value in front of the snakes and climb to a higher value in front of the ladders. The first person who reaches the 100th square wins. When players enter the game, they need to create an account by entering username and password. After that, when they start to play they can see their username underneath and an ID number will be given automatically after creating the account .Also this game can be played through Wi-Fi or offline . So , we think that we will provide maximum entertainment with this mobile game that we are going to develop.

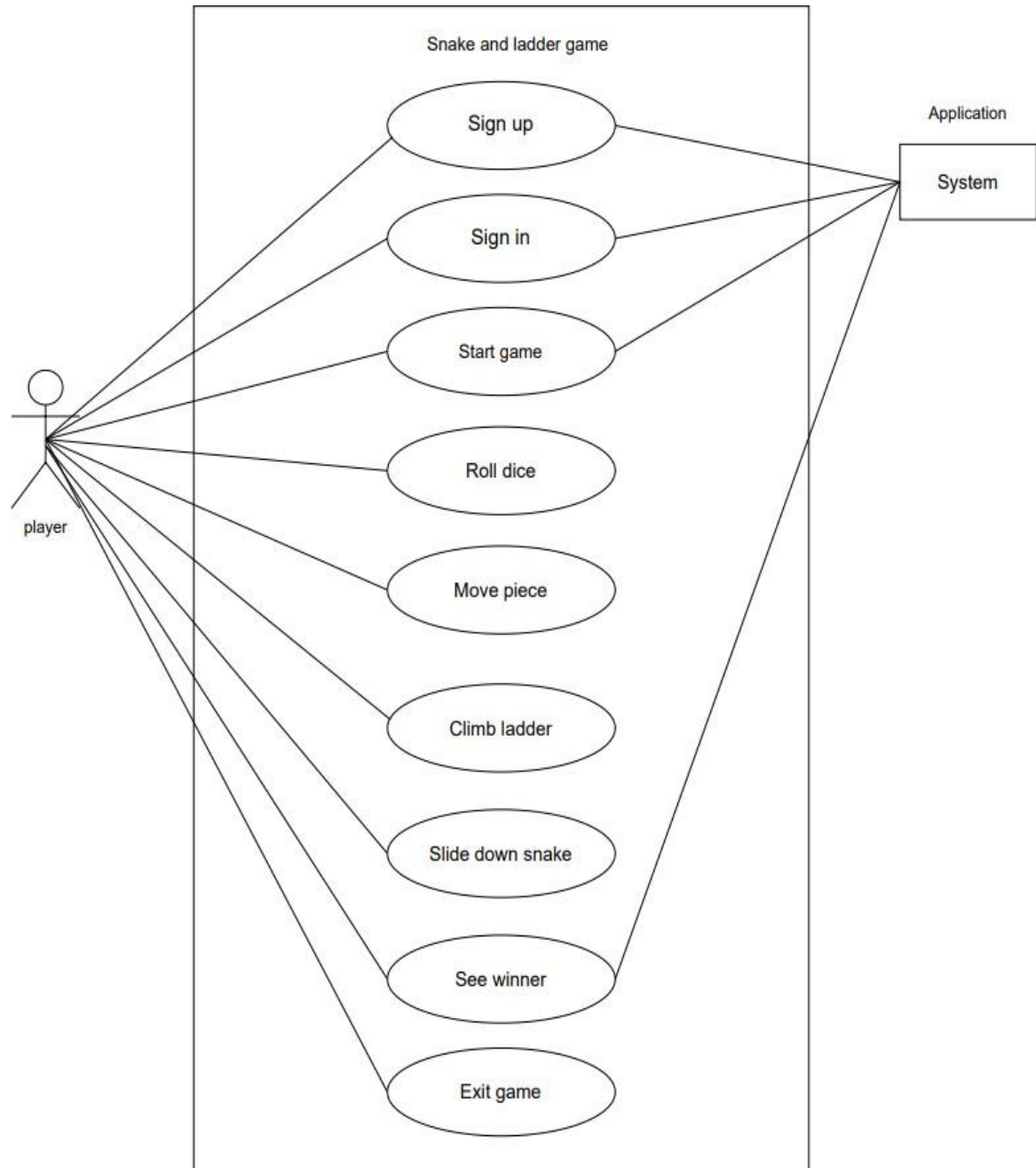
Objectives

- Have fun: The main purpose of this game is the mental freedom and fun of the players.
- Educational purpose: Snake and ladder game can be utilized as a teaching tool with young learners. It aids with the learning and reinforcement of fundamental math skills like addition, subtraction, counting, and number recognition. As they advance through the game, players practice counting and basic math as they move their game pieces according to the dice roll.
- Promotion of Social Interaction: Another goal here is to increase social interaction. Players are encouraged to interact with each other by taking turns and engaging in friendly competition. This strengthens social bonds and family bonds.
- Teach sportsmanship: The snake and ladder game teach the players patience and cooperation.
- Achieving the objective: Getting to the last square, which is typically number 100, is the first main goal of the game. In order to accomplish this, players move their game piece along the board in accordance with dice rolls, dodging snakes and using ladders to get to the target.
- Strategy and Decision Making: Strategic decisions include whether to take certain routes to avoid obstacles and approach ladders. Something more than luck happens, and it can be accessible to players of any skill level.
- Acquiring the Skills of Patience and Delayed Gratification: As the game progresses, players may encounter obstacles such as snakes and ladders, which can cause them to stumble and fall. Players will learn patience and delayed gratification from this, as they must wait for the lucky dice.

Target users

- Kids: Snake and Ladder is a simple game that can be understood by anyone easily. It is more suitable for children between the ages of 4-6. It develops the child's ability to recognize numbers.
- Families: This game is very popular among family backgrounds. It provides an opportunity for adults to join with young children and have fun.
- Casual Players: This game is light and relaxing and is best suited for people who don't want to play with mental strain.
- Educational institutions: The snake and ladder game is a very important game, especially for early childhood education institutions.
- Mobile and Online Players: Snake and Ladder is a game that can also be connected online and have fun playing with different people.
- Seniors: The simplicity of the snake and ladder makes this a very attractive game for the older crowd.

Use Case Diagram



Application Features and Description

- Player signs up: The player will sign up for the game and get his or her unique ID.
- Player signs in: The player will sign into the game with unique identification.
- Solo or multiplayer: The player can play the game alone or add a maximum of four players.
- Offline and online playing: The game can be played through Wi-Fi or offline.
- Win rate: The game will show the win rate of all players.

Time Frame and /Gantt chart

This section will show the task and the duration that we are taking to complete our project before the deadline using Gantt chart.

Task ID	Task	Start Date	End Date	Task Duration
Planning				
01	Collect project ideas	09/09/2023	21/09/2023	17
02	Project identification	21/09/2023	27/09/2023	06
03	Submit the ideas	27/09/2023	02/10/2023	05
04	Idea submission approval	02/10/2023	06/10/2023	04
Analyze				
01	Analyze the information	27/09/2023	10/10/2023	13
02	Choose the programming language	10/10/2023	13/10/2023	03
03	Create the proposal	13/10/2023	19/10/2023	06
04	Submit the proposal	19/10/2023	20/10/2023	01
Design				
01	Strategy development	21/10/2023	26/10/2023	05
02	UI/UX design	26/10/2023	05/11/2023	10
03	Code development	05/11/2023	20/11/2023	15
04	Design Database	05/11/2023	22/11/2023	17
Implementation				
01	Implement the graphics	22/11/2023	25/02/2024	95
02	Elevate the play	25/11/2023	20/03/2024	115
03	Deploy the game	30/11/2023	28/02/2024	90
System				
01	Application testing	28/02/2024	05/04/2024	37
02	Bug fixing and maintenance	28/02/2024	05/04/2024	37

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