Snake And Ladder Game Using GUI And Random Numbers

As a project work for course

PYTHON PROGRAMMING (INT 213)

Name : P.Kushal

Registration number : 12009121

Program : B.Tech(CSE)

Semester : Third

School : School of Computer Science and Engineering

Name of the University : Lovely Professional University

Date of Submission : 20th November 2021

Snake And Ladder Game

ABSTRACT :-

The Snake and Ladder Game is composed in Python. The job data has python manuscripts as well as photo data. This is simple GUI based method board game which is really understandable and make use of speaking about the gameplay, all the playing policies are the same much like real time Snake and Ladder Game. This is a GUI bases 2D multiplayer game. All the game motions are to be done by hand by the player. The 2D GUI is designed using python libraries. The gameplay and GUI is designed in such a way that the user has no difficulty in locating and comprehending the contents of the gameplay.

ACKNOWLEDGEMENT :-

I have done my project by taking reference of Google and YouTube.

I thank Google and You tube platforms which helped me a lot.

TABLE OF CONTENTS

1. Abstract	2
2. Introduction	4
3. Libraries	6
4. Proposed Work	7
5. Steps for Execution	8
6. Workflow of the Snake and ladder game	9
7. Conclusions and References	12

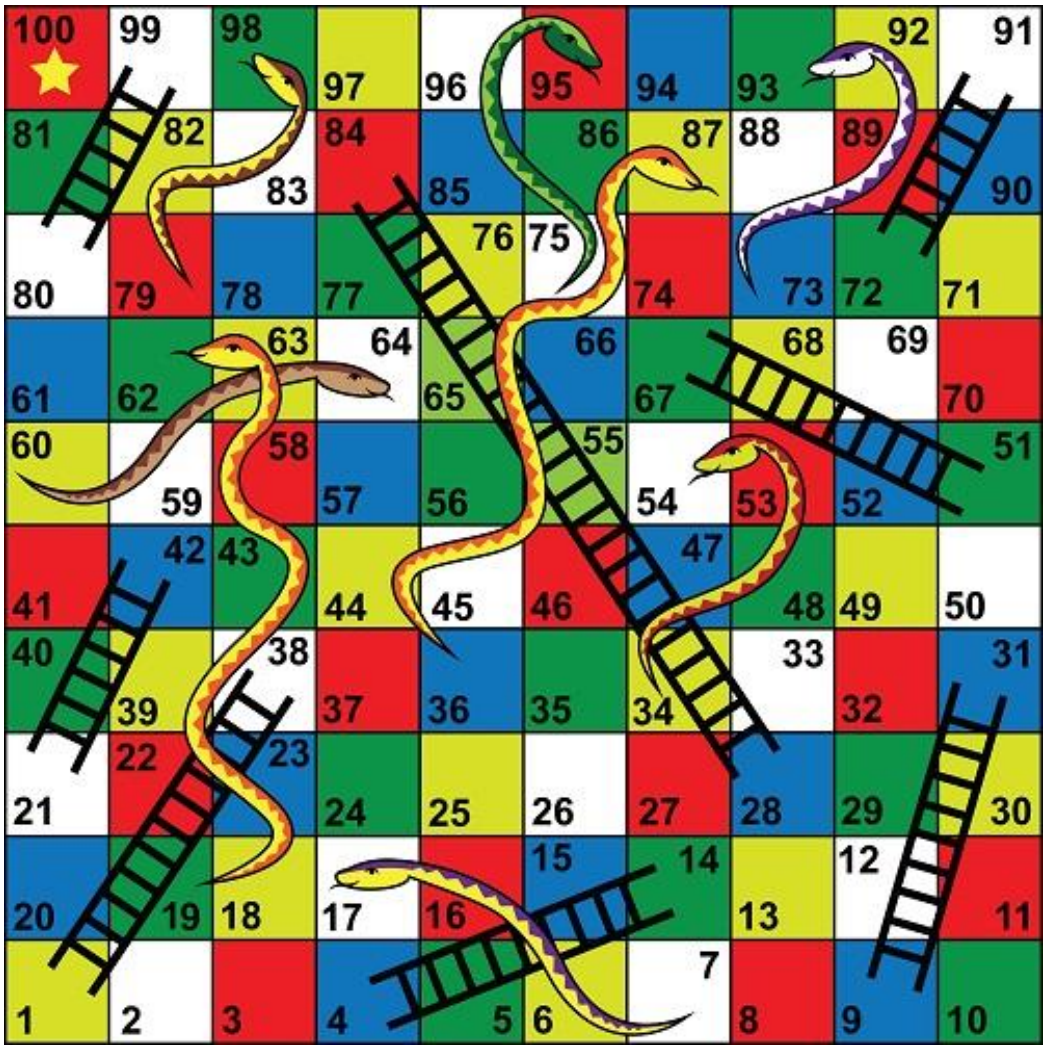
INTRODUCTION :-

Snake and ladder is a simple game consists of snakes and ladders. The object of the game is to navigate one's game piece, according to die rolls, from the start (bottom square) to the finish (top square), helped or hindered by ladders and snakes respectively.

What is happening in Game:
1- Display the welcome message
2- Collect the player's names
3- Until one of the player wins do the following:
3.1- Roll the dice
3.2- Move the player forward for the value got on the dice roll.
3.3- If the player is on snake's head, move down to its tail
3.4- If the player is on ladder's bottom, take it to its top
3.5- else remain there and let the second player roll the dice

Snakes and Ladders is a quite simple racing board game. You probably have played it once or twice in your childhood. It has been around for ages. First instance of the game played was recoded in 2nd century BC in India

where it was known as Moksha-patamu. The game was discovered by Europeans during the colonization of India and spread widely around the world. It has been originally used to teach children about good and bad as ladders represented good deeds and snakes' punishment for the bad. Nowadays, though, the game does not carry any ethical or religious meaning



LIBRARIES :-

PYGAME :

Python PyGame library is used to create video games. This library includes several modules for playing sound, drawing graphics, handling mouse inputs, etc. It is also used to create client-side applications that can be wrapped in standalone executables.

RANDOM :

- The random module is a built-in module to generate the pseudo-random variables. It can be used perform some action randomly such as to get a random number, selecting a random element from a list, shuffle elements randomly etc.

TIME :

- As the name suggests Python time module allows to work with time in Python. It allows functionality like getting the current time, pausing the Program from executing, etc.

PROPOSED WORK :

- Title : Snake and Ladder game.
- Submission date : 20/11/2021
- Objective : Creating a Snake and Ladder game using GUI and Random Number.
- Requirements : Python editor , Python compiler.

Steps for execution the game with screen shots :-

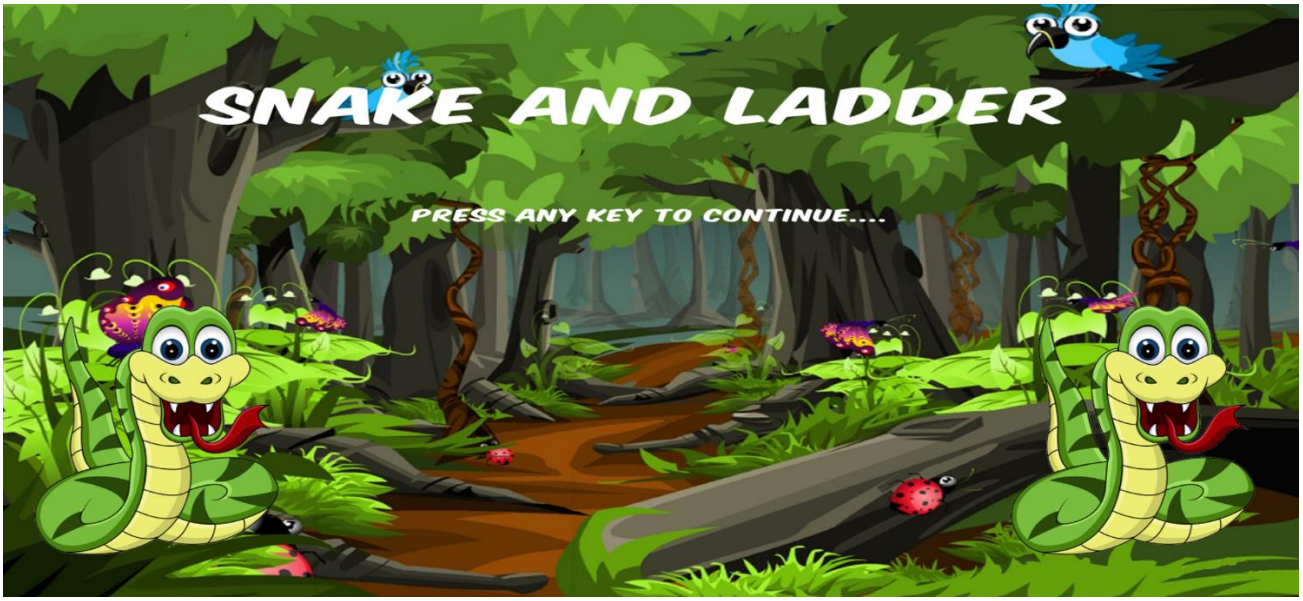
Step 1:

```
import pygame
from random import randint
import time


clock=pygame.time.Clock()

pygame.init()
w=1366
h=768

icon=pygame.image.load("icon.jpg")
GD=pygame.display.set_mode((w,h),pygame.FULLSCREEN)
pygame.display.set_caption("Snakes N Ladders")
pygame.display.set_icon(icon)
pygame.display.update()

black=(10,10,10)
white=(250,250,250)
red= (200,0,0)
```

- first we need to import the libraries in the program, because we use GUI and some images in our program.

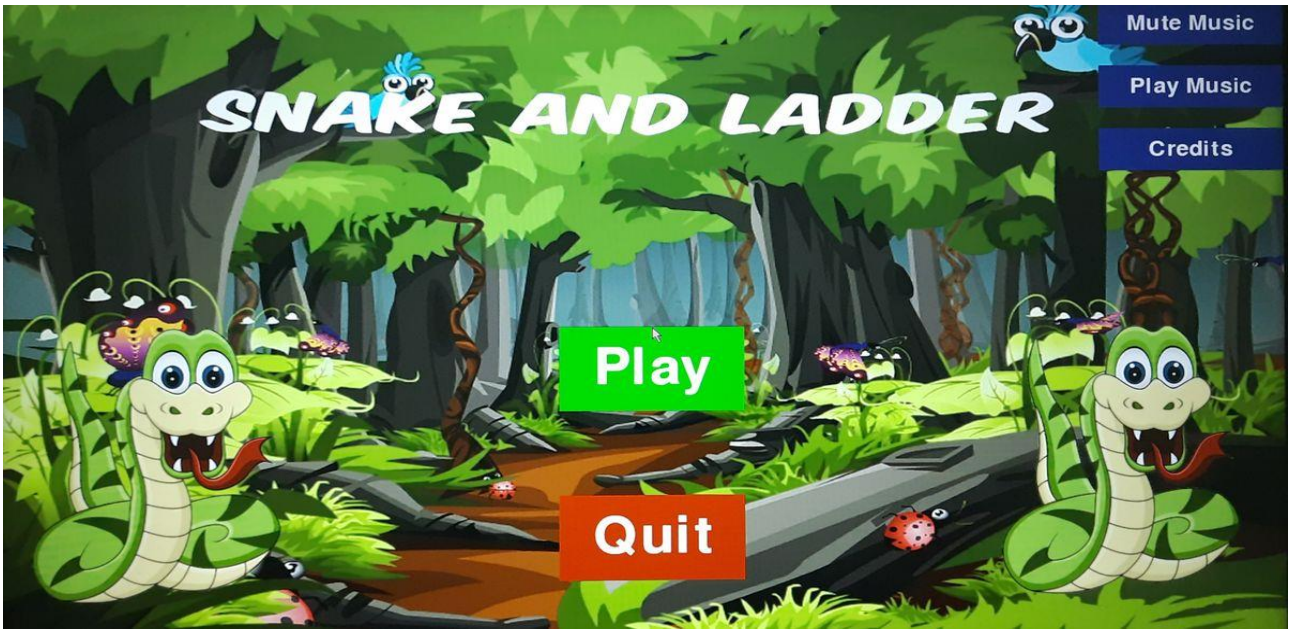
Workflow of Snake and Ladder Game

Step 1:



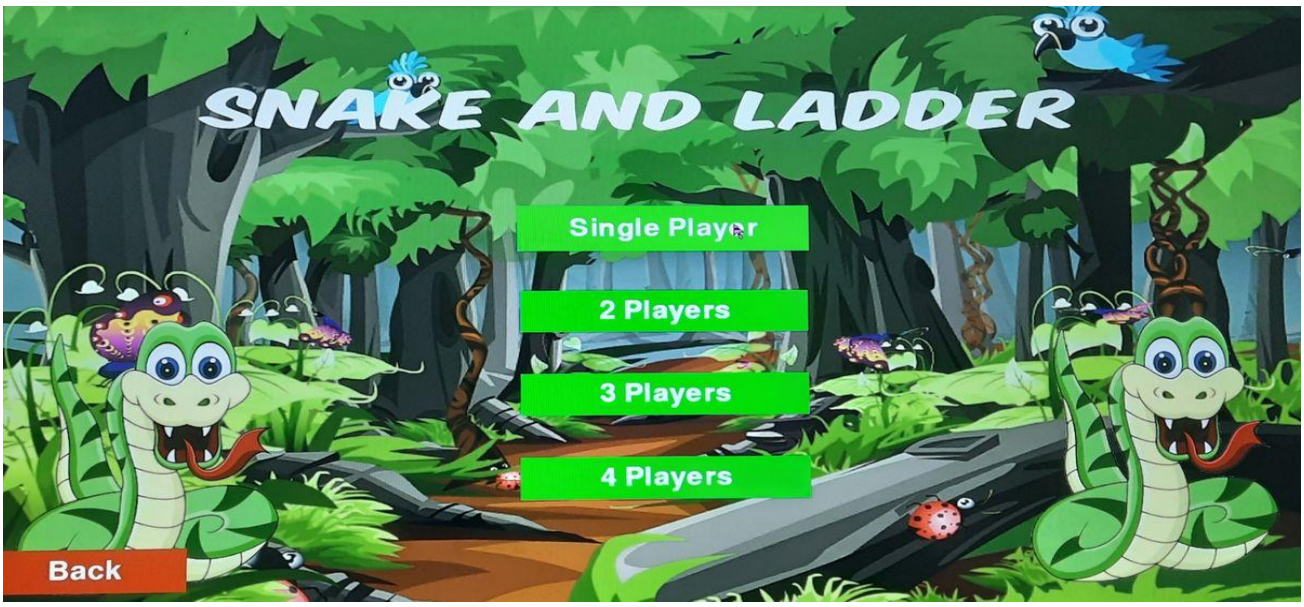
Game will be loading, after press any key main page will be available.

Step 2:



To Play click on play, To Exit click on Quit, To stop Music click on mute music, To play music click on play music.

Step 3:



We must select how many players. For single player We will play against computer. If we want to go back, click on back.

Step 4:

Board appears If we click on player 1 dice rolls and the coin moves.

Step 5:

If snake is bitten then message appears in the top as **There's a Snake!**

step 6:

If he climbs the ladder then the message appears as **There's a Ladder!**

Step 7:

Game continues until any one player reaches 100

Conclusions:-

- I conclude that you will enjoy this game with great fun with your family members and friends. This document is prepared in such a way that user can understand the proper usage of the game.

References:-

This project is made by all this references.

- Random – https://www.w3schools.com/python/module_random.asp
- Pygame – https://www.geeksforgeeks.org/pygame-tutorial/
- Time – https://www.geeksforgeeks.org/python-time-module/

Thank you