**PYTHON PROJECT SNAKE AND LADER**

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1. **Introduction:**

**Snake and Ladder game is made for playing online, where user has the control to decide on board size and also on number of dice used in game and decide number of snake and ladders to be used and select their position too and also decide number of players too. This program helps in gaming platform and any online gaming applications.**

1. **Key features:**

**User has the control to decide board size**

**User has the control to decide on number of dice**

**User has to control to decide number of snakes and ladder used in game and User can also input snake and ladder’s start and end point.(Assuming the fact that snake and ladder won’t be in same box.)**

**User inputs are**

1. **Board size**
2. **Number of dice**
3. **Number of snakes**
4. **Number of ladders**
5. **Snake start and end point**
6. **Ladders start and end point**
7. **Number of player and their names**

**Firstly, I am getting input from user on board size, Depending on this value, Winning of game is decided.**

**Next, I am getting input from user on Number of dice to be used in game. User can enter either value 1 or 2, Depending on this dice value is decided.**

**If number of dice selected is 1 then random value is selected from 1 to 6.**

**If number of dice selected is 2 then random value is selected from 2 to 12**

**Later I am getting input from user on number of player playing the game and correspondingly getting user names as input for number of users.**

**Setting initial position of all users to ‘0’ as per game rule.**

**Now code is letting user to decide the number of snake and ladders to be used in game. And depending on this value code is getting user inputs for start and end values for snake and ladder.(assuming that user doesn’t enter same value for snake and ladder).**

**Initially all the data is displayed on screen , like players name and theire position.**

**When user click on enter button,inbuilt function random.randint will decide dice value .**

**Player name, player position and dice value will be sent to move method.**

**Depending on the new position (initial position+dice value), players position is either moved up the ladder or brought down by snake or just move ahead of dice value.**

**This process will continue till user reaches 100.**

**If user is at point 99 and he gets dice value as 3 then new position will go to 102 which is beyond board size.**

**In such cases position of user won’t change and he remains at 99 till he gets 1 and reaches 100.**

**I have taken care of all constraints and rules specified in questionnaire.**

1. **Python File**

**Snakeladder.py**

1. **Language Used**
   1. **Python version 3**
2. **Future Scope:**

**Allowing user to login with user name and password**

**Can develop UI for the game and make it more user friendly.**

**Also use Database for storing all players data for any future reference and assigning points for each game played by user**