***Name : V Mokshith Sharma***

***Project Snake and Ladder game***

***Project Progress:***

***Day 1 Progress:***

***Requirements:***

1. Username: choose number of players playing the game

2. Define the set of rules to be followed.

3. Define the ladder climb at which positions.

3: 20,

6: 14,

11: 28,

15: 34,

17: 74,

22: 37,

38: 59,

49: 67,

57: 76,

61: 78,

73: 86,

81: 98,

88: 91

4. Define the snake at which positions:

8: 4,

18: 1,

26: 10,

39: 5,

51: 6,

54: 36,

56: 1,

60: 23,

75: 28,

83: 45,

85: 59,

90: 48,

92: 25,

97: 11,

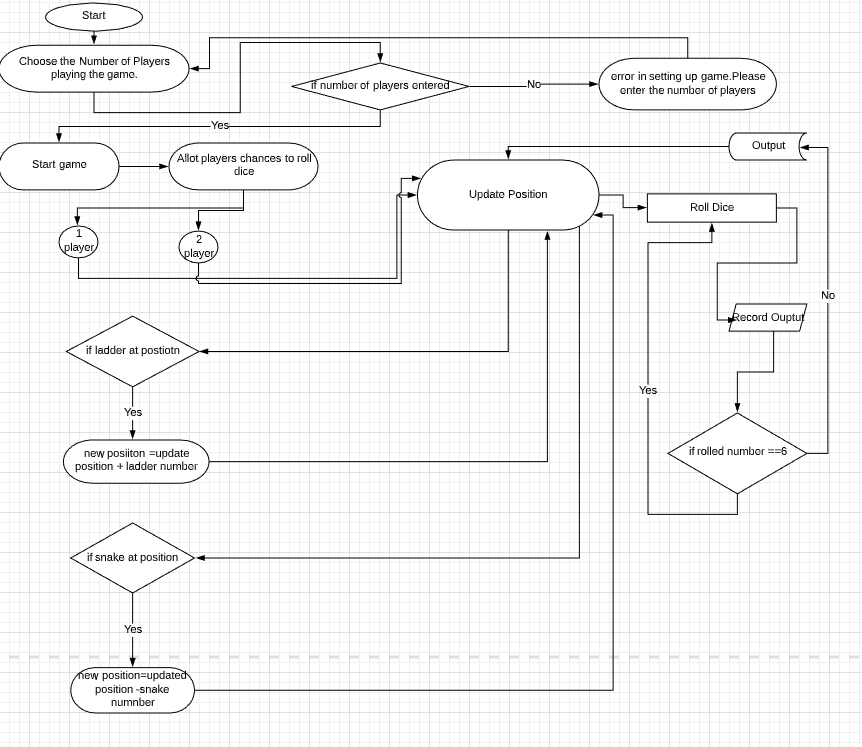
99: 63

***Day 2 Progress:***

***Process Flow:***

***Aim: Calculate Updated Position***

Answer=Updated Position



1. Start Game

2. Choose the Number of players playing the game

3, if number of players not selected, error in setting up game, choose the number of players again displayed

4. Start game

5. Allot chance to players selected/entered

***Initial Position assigned:***

6. Update their current position==0

***To move out of the 0th position***

7. If roll dice ==6 move out, updated position =1 and roll again

8. if roll dice not equal to 6 , updated position =0 and next player chance

***Check if rolled number is 6 , give another chance till chance is equal to 3***

9.res=0, if rolled dice is equal to 6

Updated position=res+6

Roll again till chances ==3

if 6 occurs 3 times continuously , updated position =updated position

***Check if Ladder Present***

10. if updated position contains ladder, new position = updated position + ladder number

Updated position =new position

11. if updated position does not contains ladder, updated position=updated position

***Check if Snake Present:***

12 if updated position contains snake:

New position = Updated position – snake Number

Updated position = new position

13. If updated position does not contain snake, then updated position = updated position

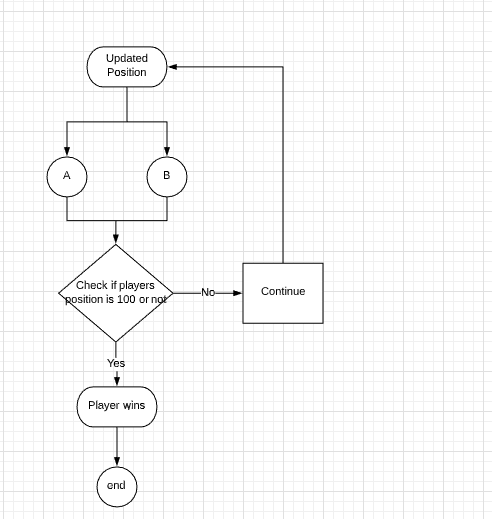
***Aim: To Calculate if any player reached 100 points***

***Check if player position ==100:***

if updated position of player ==100, player wins

end game

else continue



Day 4: The project is divided into two components:

1. Automated Game

2. Manual Game

Automated: In The automated game the user just needs to select how many players are playing the game and the system automatically calculates the player’s position and showcases which player has won the game

Manual Game: In the manual game the user needs to enter the number of players playing the game and the name of the player. In this each action is executed on pressing the ENTER button. So if player wants to roll a dice he needs to press ENTER for the action to be performed.

***Difference between Automated and Manual:***

|  |  |
| --- | --- |
| Automated | Manual |
| 1. Minimum number of players to play the game should be 2 | 1. Minimum number of players to play the game should be 2 |
| 2. No limit on maximum number of players that can play the game | 2. Limit on maximum players, only 4 players can play at a time. |
|  |  |
| Scenario-If 4 players are playing |  |
| 1. In Automated if 4 players are playing the maximum time taken for the game to finish is 5 to 6 sec | 1. The same cannot be said for manual game as time complexity increases with addition of each player |
| 2. Easy to implement | 2. Bit tricky to implement |