OMO TEC
ON MY OWN TECHNOLOGY

SESSION - 9
ENHANCED SNAKE AND LADDER GAME

Learning Outcomes:

- **Remember**: The students will recall about REPEAT loops , WHILE loops and FOR loops .
- **Understand**: They will focus on use of Multiple Nested Loops .
- **Apply**: They will learn to apply the concepts of NESTED LOOP , Time and Random Library , to code and create a multiplayer game .
- **Analyze**: They will check their understanding by developing a code .
- **Create**: They will create the code in EduBlocks

ACTIVITY DESCRIPTION

Remember & Understanding

What is happening in Game:

1. Display the welcome message.

- Create a code to add more difficulties in snake game
- Multiplayer conditions

2. Until one of the player wins do the following:

2.1- Roll the dice.

2.2- Move the player forward for the value got on the dice roll.

2.3- If the player is on snake's head, move down to its tail.

2.4- If the player is on ladder's bottom, take it to its top.

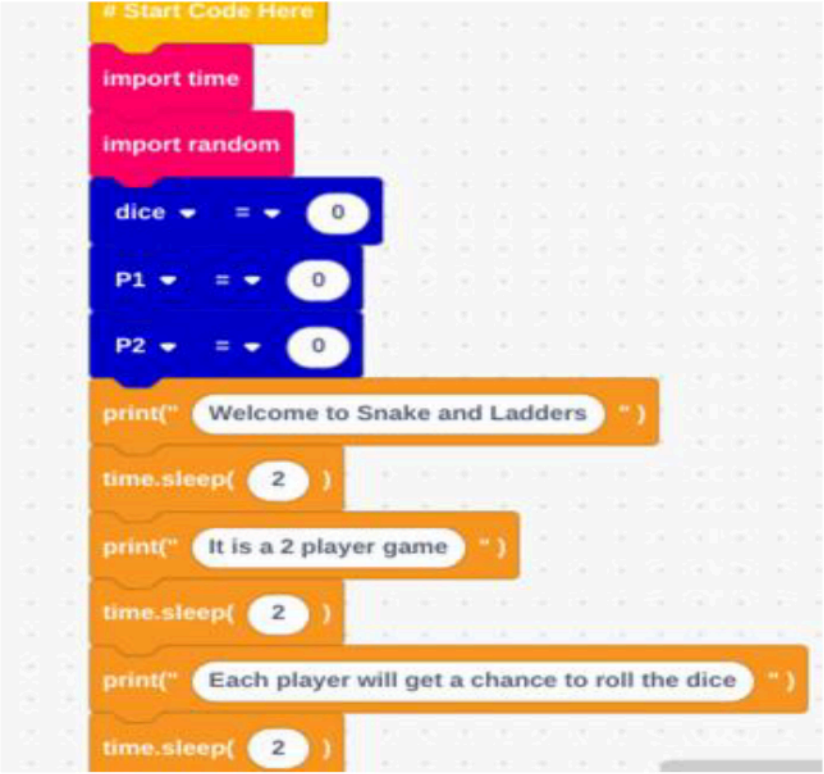
Apply & Create

TASK 01:-

</> WRITE A PROGRAM TO MAKE SNAKE AND LADDER GAME

Program Step 1:-

- Import required libraries
- Create dice, player1 and player 2 variables
- initialize all the variables
- Print welcome message
- Explain the rules of the game

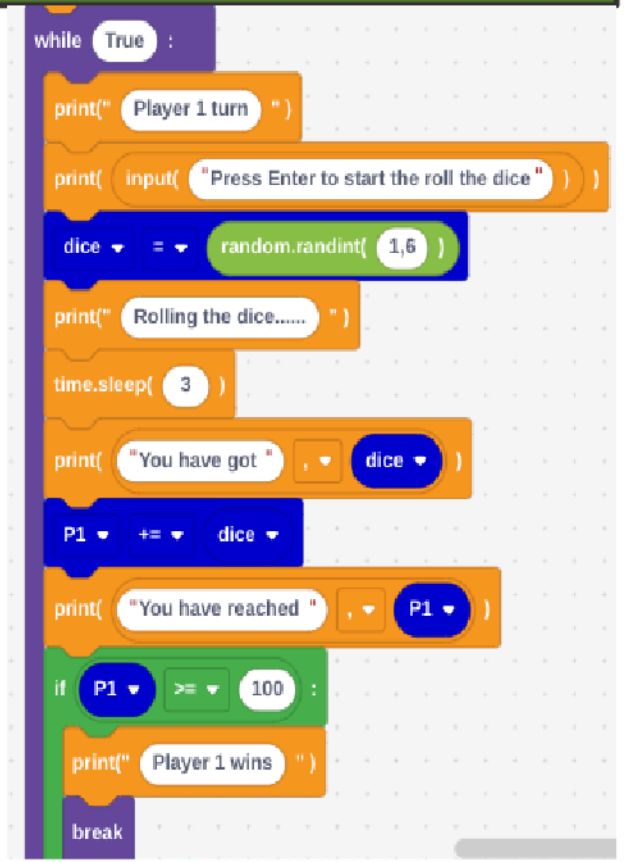


Program Step 2:-

- Explain the rules of the game
- Ask user to press enter to start the game

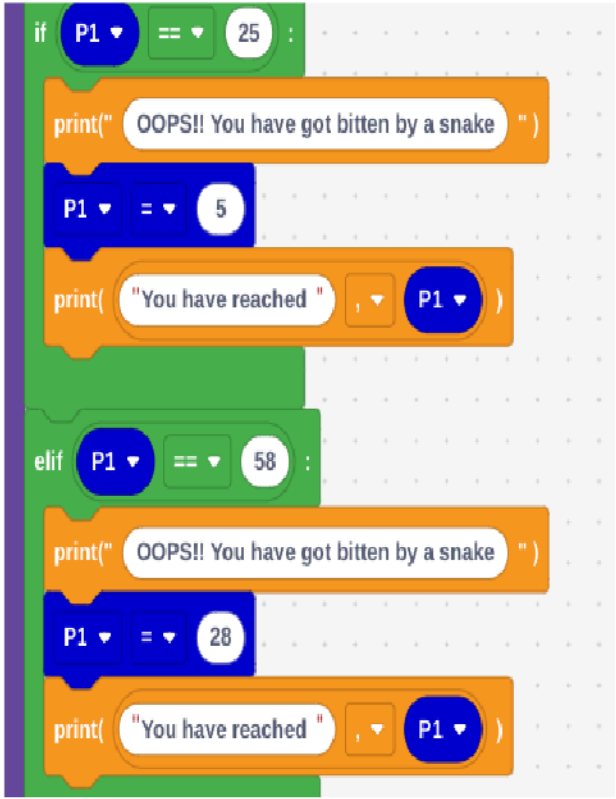
Program Step 3:-

- Add a while loop to run the code until there is a winner
- Print whos turn it is
- Ask the player to press enter to roll the dice
- Show the dice number
- Change the current position of the player by dice number
- Print the player position
- If player has reached 100, exit the loop and declare the winner



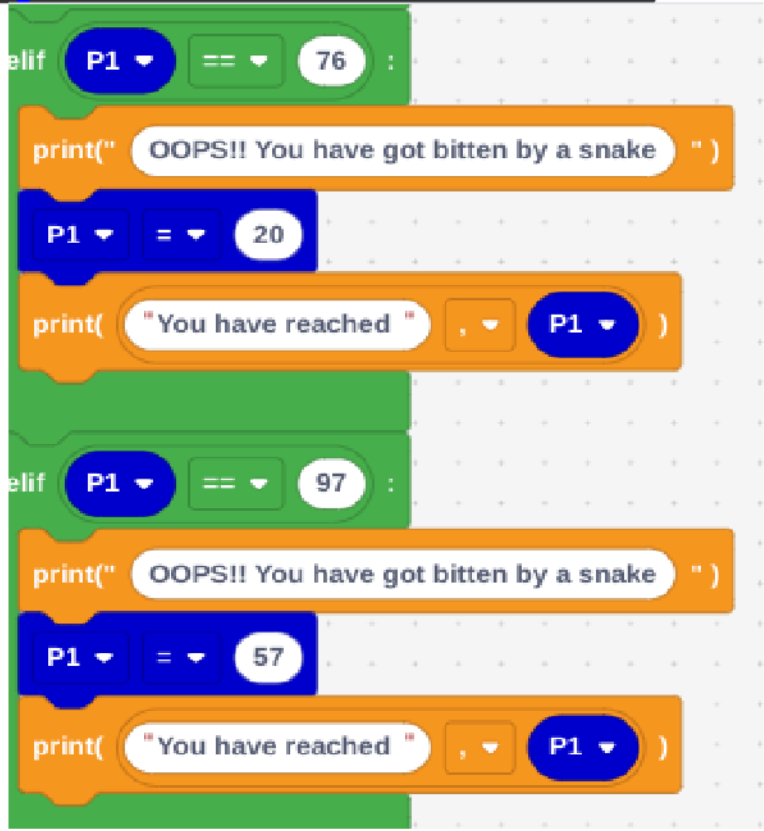
Program Step 4:-

Check if the player has touched any position of multiple snakes



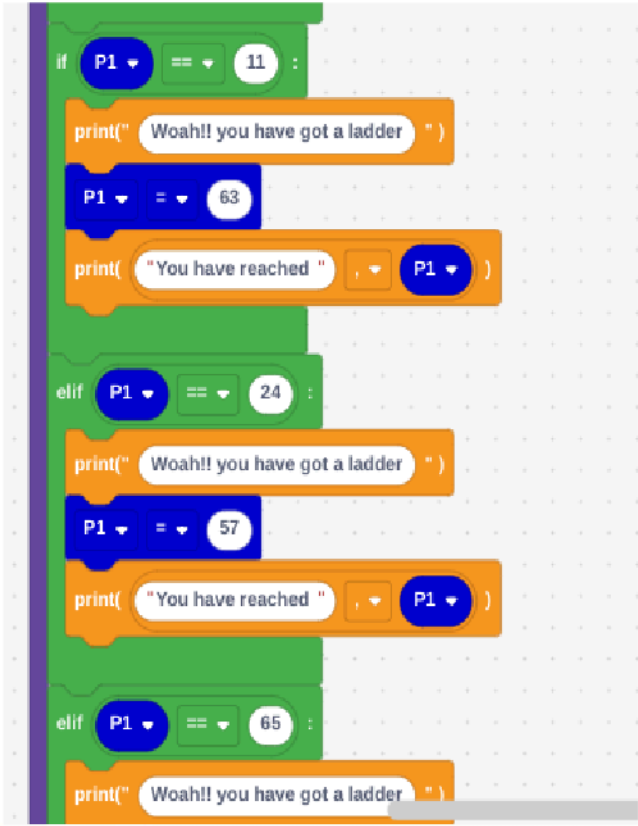
Program Step 5:-

Check if the player has touched any position of multiple snakes



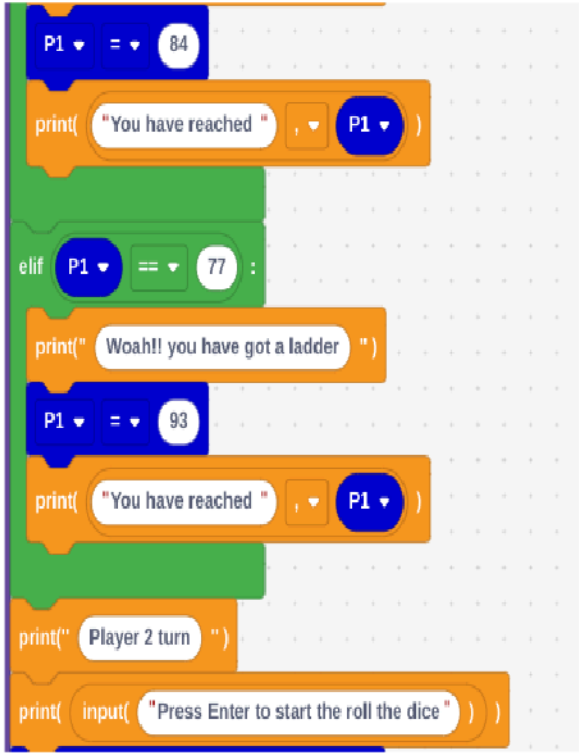
Program Step 6:-

Check if the player has reached any Ladder



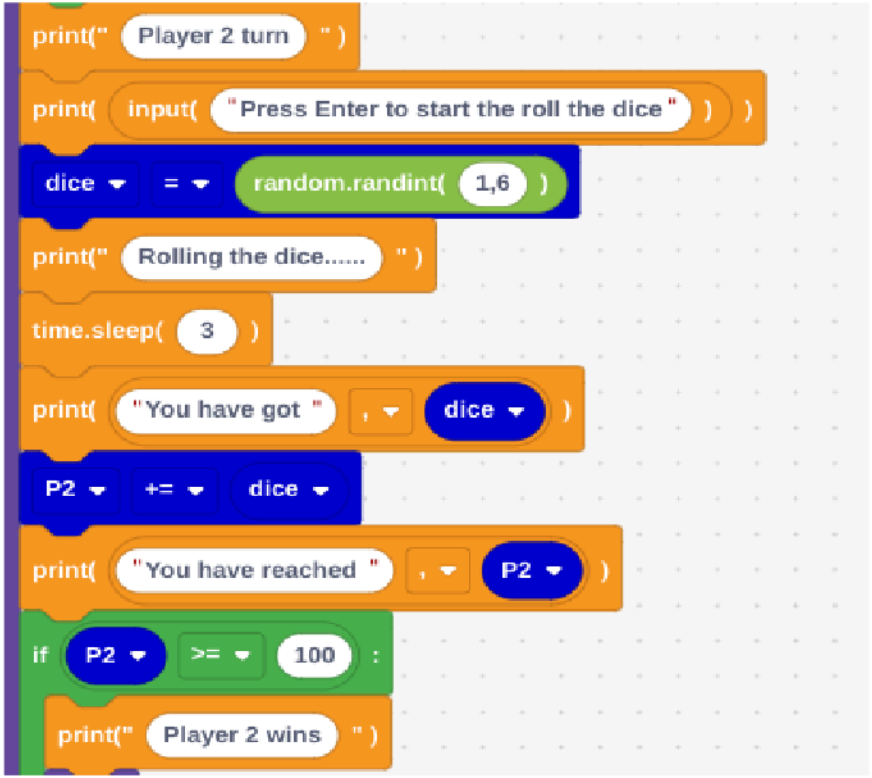
Program Step 7:-

Check if the player has reached any Ladder



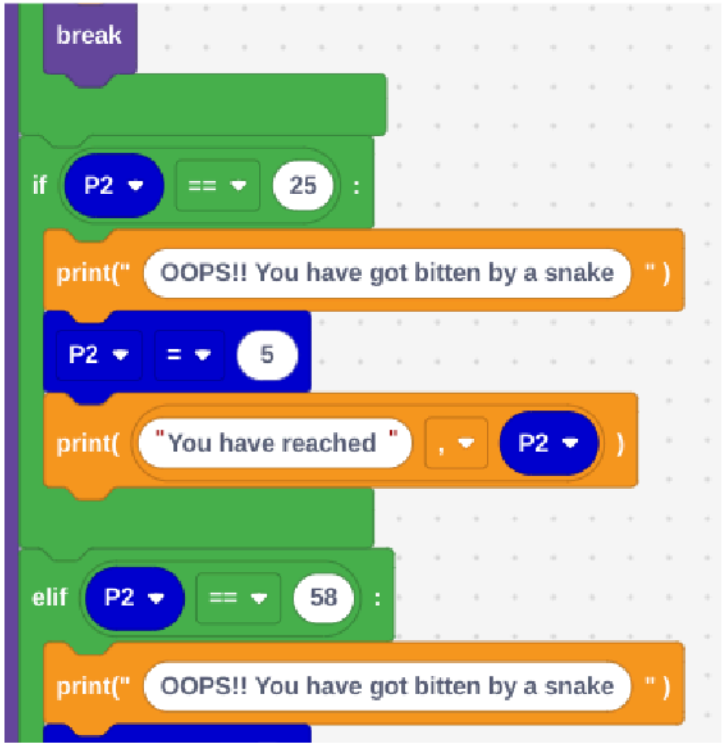
Program Step 8:-

Follow the same steps for player 2



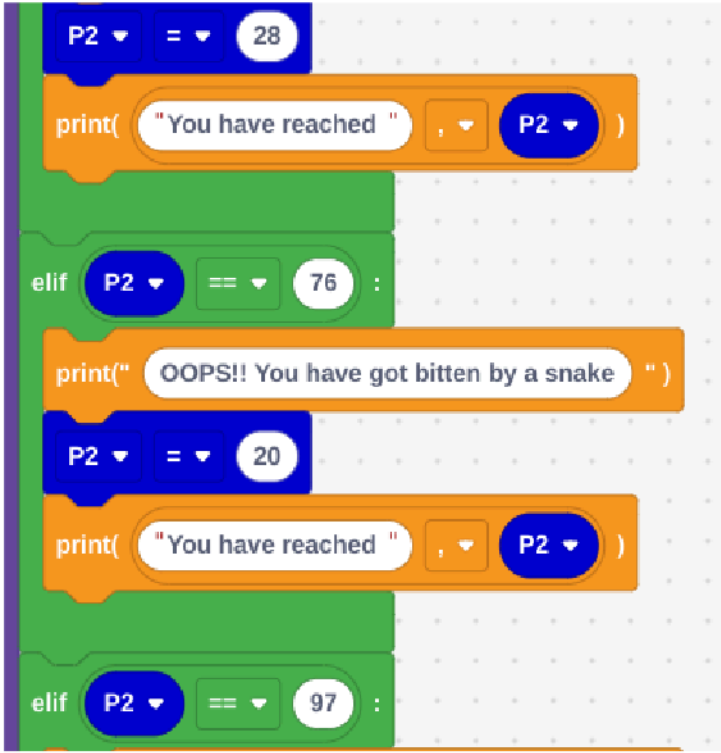
Program Step 8:-

Follow the same steps for player 2



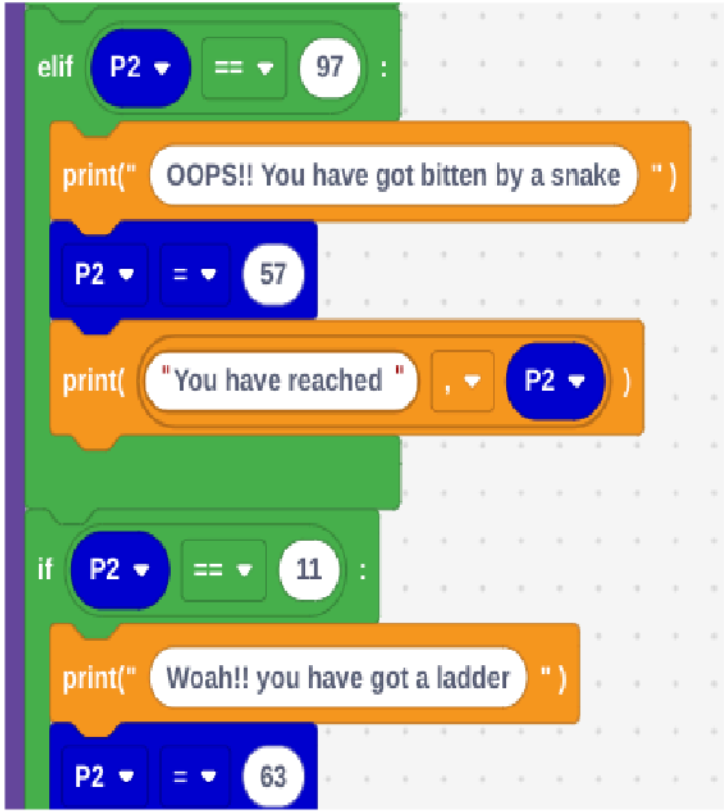
Program Step 8:-

Follow the same steps for player 2



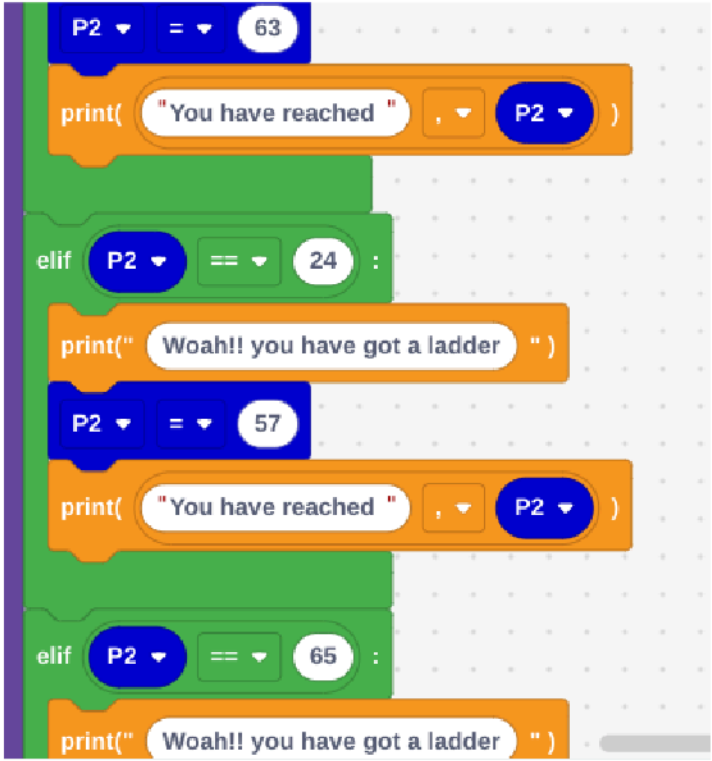
Program Step 8:-

Follow the same steps for player 2



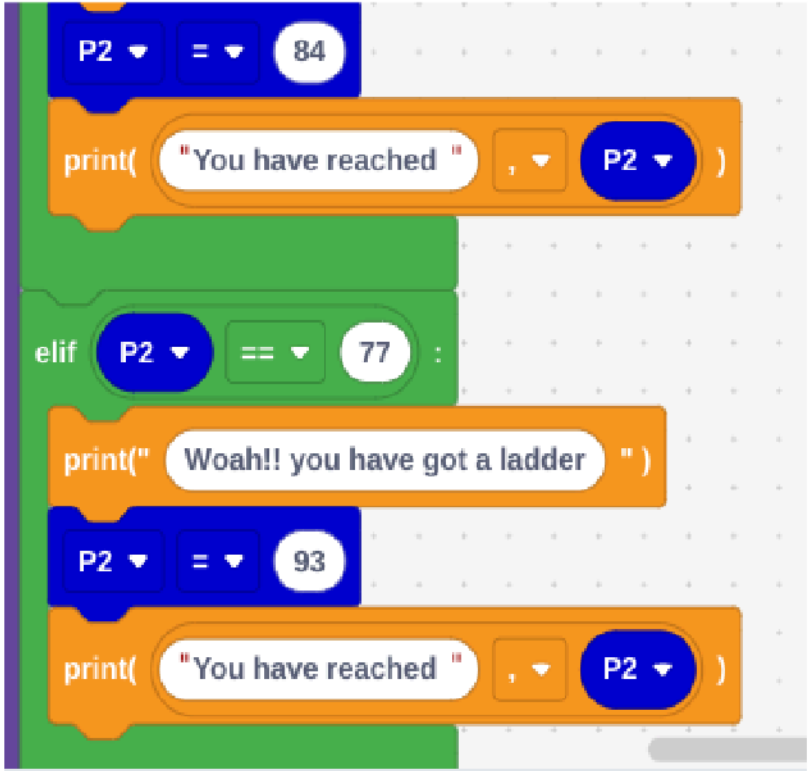
Program Step 8:-

Follow the same steps for player 2



Program Step 8:-

Follow the same steps for player 2



Syntax

```
# Start Code Here
import time
import random
dice = 0
P1 = 0
P2 = 0
print("Welcome to Snake and Ladders")
time.sleep(2)
print("It is a 2 player game")
time.sleep(2)
print("Each player will get a chance to roll the dice")
time.sleep(2)
print("On touching the snake, Player will be sent backwards")
time.sleep(2)
print("On touching the ladder, player will be taken forward")
time.sleep(2)
print("Player who reaches position 100, will be the winner")
```

Syntax

```
18 time.sleep(2)
19 print("Happy Playing!!!")
20 time.sleep(2)
21 print(input("Press Enter to start the game"))
22 while True:
23   print("Player 1 turn")
24   print(input("Press Enter to start the roll the dice"))
25   dice = random.randint(1,6)
26   print("Rolling the dice.....")
27   time.sleep(3)
28   print("You have got ",dice)
29   P1 += dice
30   print("You have reached ",P1)
31   if P1 >= 100:
32     print("Player 1 wins")
33     break
34   if P1 == 25:
```

Syntax

```
35      print("OOPS!! You have got bitten by a snake")
36      P1 = 5
37      print("You have reached ",P1)
38    elif P1 == 58:
39      print("OOPS!! You have got bitten by a snake")
40      P1 = 28
41      print("You have reached ",P1)
42    elif P1 == 76:
43      print("OOPS!! You have got bitten by a snake")
44      P1 = 20
45      print("You have reached ",P1)
46    elif P1 == 97:
47      print("OOPS!! You have got bitten by a snake")
48      P1 = 57
49      print("You have reached ",P1)
50    if P1 == 11:
```

Syntax

```
51      print("Woah!! you have got a ladder")
52      P1 = 63
53      print("You have reached ",P1)
54    elif P1 == 24:
55      print("Woah!! you have got a ladder")
56      P1 = 57
57      print("You have reached ",P1)
58    elif P1 == 65:
59      print("Woah!! you have got a ladder")
60      P1 = 84
61      print("You have reached ",P1)
62    elif P1 == 77:
63      print("Woah!! you have got a ladder")
64      P1 = 93
65      print("You have reached ",P1)
66    print("Player 2 turn")
```

Syntax

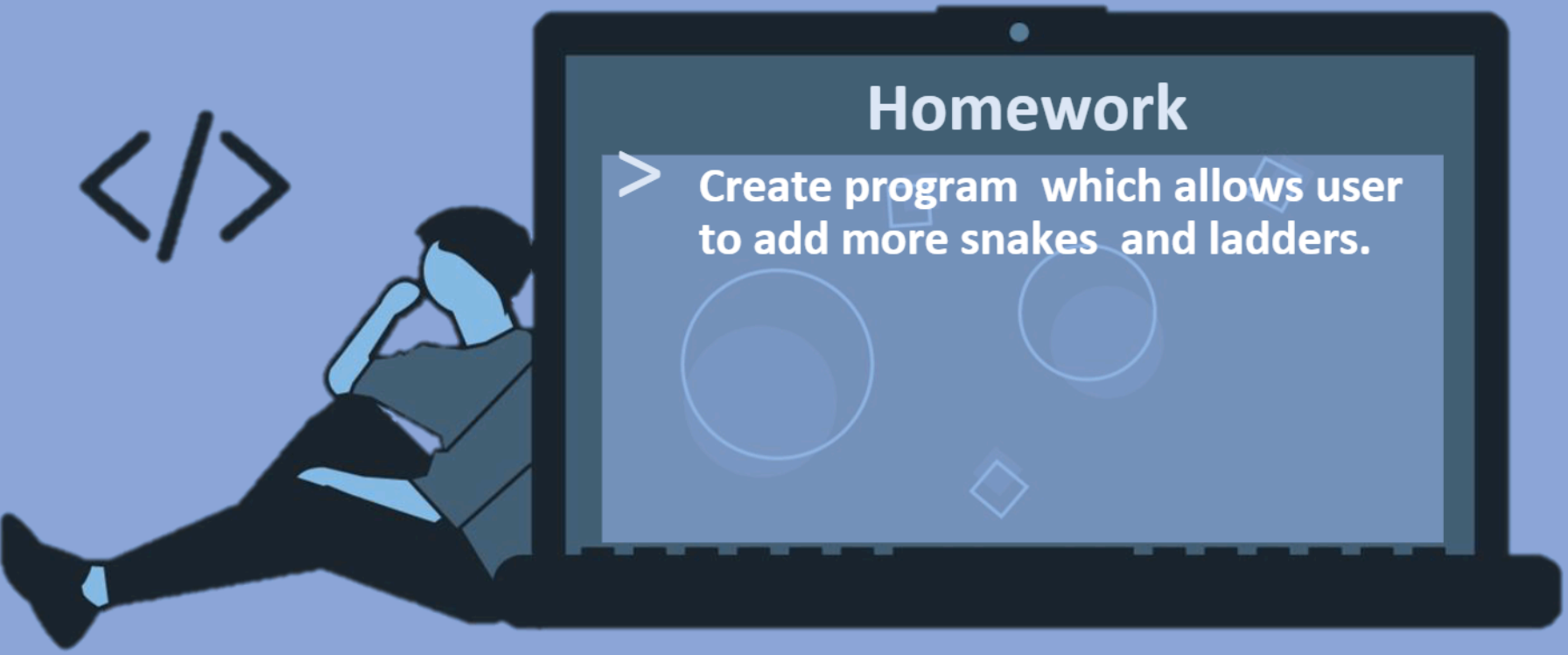
```
67   print(input("Press Enter to start the roll the dice"))
68   dice = random.randint(1,6)
69   print("Rolling the dice......")
70   time.sleep(3)
71   print("You have got ",dice)
72   P2 += dice
73   print("You have reached ",P2)
74   if P2 >= 100:
75     print("Player 2 wins")
76     break
77   if P2 == 25:
78     print("OOPS!! You have got bitten by a snake")
79     P2 = 5
80     print("You have reached ",P2)
81   elif P2 == 58:
82     print("OOPS!! You have got bitten by a snake")
```

Syntax

```
82      print("OOPS!! You have got bitten by a snake")
83      P2 = 28
84      print("You have reached ",P2)
85    elif P2 == 76:
86      print("OOPS!! You have got bitten by a snake")
87      P2 = 20
88      print("You have reached ",P2)
89    elif P2 == 97:
90      print("OOPS!! You have got bitten by a snake")
91      P2 = 57
92      print("You have reached ",P2)
93    if P2 == 11:
94      print("Woah!! you have got a ladder")
95      P2 = 63
96      print("You have reached ",P2)
97    elif P2 == 24:
```

Syntax

```
93    if P2 == 11:
94      print("Woah!! you have got a ladder")
95      P2 = 63
96      print("You have reached ",P2)
97    elif P2 == 24:
98      print("Woah!! you have got a ladder")
99      P2 = 57
100     print("You have reached ",P2)
101   elif P2 == 65:
102     print("Woah!! you have got a ladder")
103     P2 = 84
104     print("You have reached ",P2)
105   elif P2 == 77:
106     print("Woah!! you have got a ladder")
107     P2 = 93
108     print("You have reached ",P2)
```


Homework
Create program which allows user to add more snakes and ladders.