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Date - 09/02/2026

In [70]:
```python
#1
# two variables
first_variable = 100
second_variable = 29

# sum & multiply
Sum_and_mutiply = (first_variable + second_variable)* 3

# second exponent
second_exponent = Sum_and_mutiply** 2

#Print result
print('The result of calculation was:')
print(f"      {second_exponent}")
```

```
The result of calculation was:
       149769
```

In [30]:
```python
#2
#input
name = input ("Enter your first name : ")
age = int(input ("Enter your age: "))
Year_of_birth = int(input ("Enter your year of birth :"))

#password creating
Last_two_of_YOB = str(Year_of_birth) [-2:]
first_3_ltters_of_NAME = str(name [:3])
Second_power_of_age = str(age**2)

#password
password =  Last_two_of_YOB + first_3_ltters_of_NAME + Second_power_of_age

#Results
print ("Name :" + str(name))
print ("Age :" + str("age"))
print ("Year of birth : "+ str(Year_of_birth))
print ("Password :" + str(password))
```

```
Name :Imesha
Age :age
Year of birth : 1998
Password :98Ime784
```

In [36]:
```python
#3
# input numbers
first_number = int(input("Enter first number: "))
second_number = int(input("Enter second number: "))

# Check if numbers are even or odd
if first_number % 2 == 0 and second_number % 2 == 0:
print("Both numbers are even.")
```

```python
elif first_number % 2 == 0 or second_number % 2 == 0:
print("One of the numbers is even.")
else:
print("Both numbers are odd.")
```

Both numbers are even.

In [33]:
```python
#4
# input number
interger = int(input("Give an integer: "))

# Calculate the sum
total_sum = 0
for numbers in range(interger + 1):
total_sum += numbers

# Display the result
print("The sum was: " + str(total_sum))
```

The sum was: 6

In [67]:
```python
#5
import random

# Generate a random number between 0 and 10
secret_number = random.randint(0, 10)
tries = 0
# Game loop
while True:
    # Get player's guess
    guess = int(input("Player: "))
    tries += 1

    # Check if the guess is correct
    if guess == secret_number:
        print(f"That's right! Number of tries: {tries}")
        break
    elif guess < secret_number:
        print("Try a greater number.")
    else:
        print("Try a smaller number.")
```

Try a greater number.
Try a smaller number.
That's right! Number of tries: 3

In [71]:
```python
# Two players version
import random

def play_game(player_name):
    secret_number = random.randint(0, 10)
    tries = 0
    while True:
        guess = int(input(f"{player_name}: "))
        tries += 1

        if guess == secret_number:
```

```python
                print(f"That's right! Number of tries: {tries}")
                return tries
            elif guess < secret_number:
                print("Try a greater number.")
            else:
                print("Try a smaller number.")

# Player 1's turn
player1_tries = play_game("Player1")

# Player 2's turn
player2_tries = play_game("Player2")

# Determine and announce the winner
print("\n**** GAME RESULTS ****")
print(f"Player1 tries: {player1_tries}")
print(f"Player2 tries: {player2_tries}")

if player1_tries < player2_tries:
    print("Player1 wins!")
elif player2_tries < player1_tries:
    print("Player2 wins!")
else:
    print("It's a tie!")
```

```
Try a smaller number.
Try a smaller number.
That's right! Number of tries: 3
Try a smaller number.
That's right! Number of tries: 2

**** GAME RESULTS ****
Player1 tries: 3
Player2 tries: 2
Player2 wins!
```

In [ ]: