Assignment2

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1 Assignment 2

1.1 10-02-2025

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2 Exercise 1

```python
[22]: # Defining the variables with values of 100 and 29
first_no = 100
second_no = 29

# Summing the numbers and multiplying the result by 3
sum = (first_no + second_no) * 3

# Calculating the 2nd exponent of the previous result
result = sum ** 2

# Printing the result
print("The result of the calculation was:" ,result)
```

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

3 Exercise 2

```python
[24]: # Get user inputs
name = input("Enter your name: ")
year = input("Enter your year of birth: ")
age = int(input("Enter your age: "))

# calculate pasword

password = year[2:]+name[:3]+str(age**2)

# Display the password
print("Your password is:", password)
```

```
Enter your name:  Jhon
Enter your year of birth:  1995
```

Enter your age: 26

Your password is: 95Jho676

4   Exercise 3

```python
[26]: # get the  two numbers
firstno = int(input("Enter the first number: "))
secondno = int(input("Enter the second number: "))

# Check if both, one, or neither number is even
if firstno % 2 == 0 and secondno % 2 == 0:
    print("Both numbers are even.")
elif firstno % 2 == 0 or secondno % 2 == 0:
    print("One of the numbers is even.")
else:
    print("Both numbers are odd.")
```

Enter the first number: 5
Enter the second number: 6

One of the numbers is even.

5   Exercise 4

```python
[28]: # get a number
num = int(input("Give an integer: "))

total_sum = 0
for i in range(0,num):
    total_sum += i

# Output the result
print("The sum was:",total_sum)
```

Give an integer: 5

The sum was: 10

6   Exercise 5

```python
[30]: import random
def guessing_game():
    # Dealer generates a random number between 0 and 10
    dealer = random.randint(0, 10)

    print("Welcome to the guessing game!")
    print("I have chosen a number between 0 and 10. Try to guess it.")
```

```python
# Player makes a guess
    player = int(input("Player :"))
    count = 1
    while dealer != player:
        count += 1
        if dealer < player:
            print("Try a Smaller number.")
            player = int(input("Player :"))
        elif dealer > player:
            print("Try a greater number.")
            player = int(input("Player :"))

    print("That's right! number of tries : ", count)
# Call the function to start the game
guessing_game()
```

```
Welcome to the guessing game!
I have chosen a number between 0 and 10. Try to guess it.

Player : 2

Try a greater number.

Player : 7

Try a greater number.

Player : 9

That's right! number of tries :  3
```

7 Bonus

```python
[32]: import random
def guessing_game():
    # Dealer generates a random number between 0 and 10 for player 1
    dealer1 = random.randint(0, 10)
    print("Welcome to the guessing game!")
    print("I have chosen a number between 0 and 10. Try to guess it.")
# Player 1 makes a guess
    player1 = int(input("Player1 :"))
    count1 = 1
    while dealer1 != player1:
        count1 += 1
        if dealer1 < player1:
            print("Try a Smaller number.")
            player1 = int(input("Player1 :"))
        elif dealer1 > player1:
            print("Try a greater number.")
```

```python
            player1 = int(input("Player1 :"))

    print("That's right! number of tries : ", count1)

    # Dealer generates a random number between 0 and 10 for player 2
    dealer2 = random.randint(0, 10)
    print("Welcome to the guessing game!")
    print("I have chosen a number between 0 and 10. Try to guess it.")
# Player 2 makes a guess
    player2 = int(input("Player2 :"))
    count2 = 1
    while dealer2 != player2:
        count2 += 1
        if dealer2 < player2:
            print("Try a Smaller number.")
            player2 = int(input("Player2 :"))
        elif dealer2 > player2:
            print("Try a greater number.")
            player2 = int(input("Player2 :"))

    print("That's right! number of tries : ", count2)

    if count1 < count2:
        print("winner is player 1!")
    elif count1 > count2:
        print("winner is player 2!")
    else:
        print("It's a tie! Both players wins")

# Call the function to start the game
guessing_game()
```

```
Welcome to the guessing game!
I have chosen a number between 0 and 10. Try to guess it.

Player1 : 2

Try a Smaller number.

Player1 : 1

That's right! number of tries :  2
Welcome to the guessing game!
I have chosen a number between 0 and 10. Try to guess it.

Player2 : 5

Try a Smaller number.

Player2 : 4

Try a Smaller number.
```

```
Player2 : 2

Try a greater number.

Player2 : 3

That's right! number of tries :  4
winner is player 1!
```

[ ]: