

Assignment 2

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1 Assignment 2

1.1 Ayesha Subhashanee Hallala Hewage

(Question 1). Define two variables and assign them values of 100 and 29. After this, make the interpreter sum up two numbers and multiply their result by 3. Calculate the 2nd exponent of the previous number and save it to a new variable. Make the program print the result in the following way:

The Result of the calculation was:

149769

- Make sure you use valid variable names and name your variables meaningfully.
- Make sure that the output of your program has indentation as shown in the above example.

```
[23]: # Assigning values to the variables
num_1 = 100
num_2 = 29
#Calculation
num_3 = (num_1 + num_2) * 3
num_4 = num_3 ** 2
#output
print("The result of the calculation was: \n",num_4)
```

The result of the calculation was:

149769

(Question 2). Write a program that creates a password by asking the user to input their name, age, year of birth. Save all in separate variables using the right type for each of them. Program should create the password in following way: takes last two digits of year of birth, first 3 letters from name, and the 2nd power of the age according to the example below:

Name: John
Year of birth: 1995
Age: 26
Password: 95Joh676

```
[29]: name = input("Enter your name: ")
year_of_birth = input("Enter your year of birth: ")
age = int(input("Enter your age: "))
```

```

last_two_digits = year_of_birth[-2:]
name_part = name [:3].capitalize()
age_squared = str(age ** 2)
password = last_two_digits + name_part + age_squared
print ("\n Name:",name)
print ("\n Year of birth:",year_of_birth)
print ("\n Age:",age)
print ("\n password:",password)

```

Enter your name: John
Enter your year of birth: 1995
Enter your age: 26

Name: John

Year of birth: 1995

Age: 26

password: 95Joh676

(Question 3). Write a program that asks for two numbers. If both numbers are even, the program prints “Both numbers are even”. if only one of the numbers is even, the program prints “One of the numbers is even”. Finally, if neither of the numbers is even, the program prints “Both numbers are odd”

First number:5
Second number:6
one of the numbers is even

```

[157]: number1=int(input("First number: "))
number2=int(input("Second number: "))

if number1 % 2 == 0 and number2 % 2 == 0:
    print("Both numbers are even")
elif number1 % 2 == 0 or number2 % 2 == 0:
    print("One of the number is even")
else:
    print("Both numbers are odd")

```

First number: 5
Second number: 6

One of the number is even

(Question 4). Create a program, which asks the user for a number, and calculates the sum of all positive numbers from 0 to the user given input. If the user gives the number 4, the program calculates the sum 0+1+2+3, if 7, the calculation is 0+1+2+3+4+5+6.

Program operates as bellow:

Give an integer:5
The sum was:10

```
[163]: number = int(input("Give an integer: "))
display_number=0
for x in range(0,number):
    display_number = x+display_number

print("The sum was:", display_number)
```

Give an integer: 5

The sum was: 10

(Question 5).Create a program that can be used as a guessing game.The game is played by Dealer and player. Dealer generates a random integer number between 0 and 10.Player has to guess it. The program should take input from player as long as player inputs same number as Dealer's input was. Player gets advice to choose greater or smaller numbers in next choice.Finally, program has to also display the number of tries until the number is guessed.

Program operates as follow:

Player:2
Try a greater number.
Player:7
Try a smaller number.
Player:5
That's right!Number of tries:3

```
[151]: import random
dealer_number = random.randint(0, 10)
tries=0;
player_guess=-1

while player_guess!=dealer_number:
    player_guess = int(input("Player: "))
    tries +=1;

    if player_guess < dealer_number:
        print("Try a greater number.")
    elif player_guess > dealer_number:
        print("Try a smaller number.")
    else:
        print(f"That's right! Number of tries : " ,tries)
        break
```

Player: 2

Try a greater number.

Player: 4

Try a greater number.

Player: 6

Try a greater number.

Player: 8

Try a greater number.

Player: 9

That's right! Number of tries : 5

[]: