

ITEC-425 / SENG-425 : Python Programming (Lab)

Lab 2: Variables, Expressions and Statements

1. Write a program that uses input to prompt a user for their name and then welcomes them.

Code:

```
name = input("Enter your name: ")  
print("Hello, " + name)
```

Output:

```
Enter your name: Ahmed  
Hello, Ahmed
```

2. Write a program to prompt the user for hours and rate per hour to compute gross pay.

Code:

```
hours = int(input("Enter Hours: "))  
rate = float(input("Enter Rate: "))  
gross_pay = hours * rate  
print("Gross Pay: " + str(gross_pay))
```

Output:

```
Enter Hours: 5  
Enter Rate: 20.75  
Gross Pay: 103.75
```

3. Write a program which prompts the user for a Celsius temperature, convert the temperature to Fahrenheit, and print out the converted temperature.

Code:

```
temp_C = float(input("Enter temperature in Celsius: "))  
temp_F = temp_C * 9 / 5 + 32  
print("Temperature in Fahrenheit: " + str(temp_F))
```

Output:

```
Enter temperature in Celsius: 100
Temperature in Fahrenheit: 212.0
```

4. Write a program that inputs two numbers from the user, and displays the first number raised to the power of the second number.

Code:

```
num1 = int(input("Number 1: "))
num2 = int(input("Number 2: "))
print(num1, "raised to the power of", num2, "is: ", (num1**num2))
```

Output:

```
Number 1: 2
Number 2: 10
2 raised to the power of 10 is: 1024
```

5. Write a program that initializes two variables with integer (int) values and converts their data types to floating-point (float), and displays them.

Code:

```
age = 20
items = 5
print("age: ", age)
print("items: ", items)

age = float(age)
items = float(items)
print("age: ", age)
print("items: ", items)
```

Output:

```
age: 20
items: 5
age: 20.0
items: 5.0
```