Practice Set 1

Task 01

Write a program based on the concepts covered in today's lecture. Use your understanding of variables, numerical literals, strings, string slicing, `print()`, and `input()` to create a program of your choice. Be creative and ensure your program demonstrates your learning effectively.

In [21]:
```
name=input("Enter your name")
num=int(input("Enter your favourite number"))
print(f"Hello {name}, your favorite number is {num}!")
```

```
Hello hadia, your favorite number is 44!
```

Task 02

Q1: Create variables to store the following values:

- Your age (integer)
- Your height in meters (float)
- The year you were born (integer).

Now, print these values with appropriate labels.

In [12]:
```
age=int(input("enter your age"))
height=float(input("Enter your height"))
year=int(input("enter the year you were born"))
print(age)
print(height)
print(year)
```

```
20
5.7
2004
```

Q2: Write a Python program to calculate the area of a rectangle.
Take input for the rectangle's length and width from the user, store them in variables, and display the result.

Formula: `Area = Length × Width`

In [14]:
```
num=float(input("Enter length"))
num1=float(input("Enter width"))
area=num*num1
print(area)
```

```
484.0
```

Q3: Create a variable that holds your full name as a string.

- Print your name in all uppercase letters.
- Print your name in all lowercase letters.
- Print the length of your name.

In [13]:
```
name=input("Enter your name")
a=name.upper()
b=name.lower()
c=len(name)
print(a)
print(b)
print(c)
```

```
HADIA
hadia
5
```

Q4: Take a string input from the user for their favorite quote and print it with the following modifications:

- Add quotation marks (`" "`) around the quote.
- Display the first 10 characters of the quote.
- Display the last 5 characters of the quote.

In [20]:
```
clr=input("Enter your favourite quote")
b=clr[0:11]
c=clr[-5:]
```

```
print(f'"{clr}"')
print(b)
print(c)
```

```
"either you run the day or the day run you "
either you
 you
```

Q5: Write a Python program that asks the user to input their full name.

- Print only their first name using slicing.
- Print only their last name using slicing.
- Reverse their full name using slicing.

In [18]:
```
clr=input("Enter your full name")
aa=clr.split()
a=aa[0:4]
b=clr[-3:]
c=clr[::-1]
print(a)
print(b)
print(c)
```

```
['hadia', 'naseer']
eer
reesan aidah
```

Q6: Take a string input of your favorite color and slice it in the following ways:

- Display the first three characters.
- Display the last three characters.
- Skip every second character and print the result.

In [16]:
```
clr=input("Enter your favourite colour")
a=clr[0:3]
b=clr[-3:]
c=clr[0::2]
print(a)
print(b)
print(c)
```

```
bla
ack
bak
```

Q7: Write a Python program that asks the user for their name, age, and city.
Then print a message in this format:
`Hello [name]! You are [age] years old and live in [city].`

In [5]:
```
name=input("Enter your name")
age=int(input("enter your age"))
city=input("Enter city")
print(f"Hello {name}! You are {age} years old and live in {city}.")
```

```
Hello hadia! You are 20 years old and live in kotli.
```

Q8: Create a mini calculator that:

- Takes two numbers as input from the user.
- Prints their sum, difference, product, and division.

In [4]:
```
num=float(input("Enter first number"))
num1=float(input("Enter second number"))
sum=num+num1
diff=num-num1
prd=num*num1
div=num/num1
rem=num%num1
print("sum is ",sum)
print("difference is",diff)
print("product is",prd)
print("division of num is ",div)
print("reminder is",rem)
```

```
sum is  4.0
difference is 0.0
product is 4.0
division of num is  1.0
reminder is 0.0
```

Q9: Write a program that takes the user's first name and favorite number as input.

- Create a message that says: `"Hello [Name], your favorite number is [Number]!"`
- Print the message 5 times using a single `print()` statement.

In [2]:
```
name=input("Enter your name")
num=int(input("Enter your favourite number"))
print(f"Hello {name}, your favorite number is {num}!")
```

```
Hello hadia, your favorite number is 7!
```

In [ ]: