Shri Vile Parle Kelavani Mandal's
DWARKADAS J. SANGHVI COLLEGE OF ENGINEERING
(Autonomous College Affiliated to the University of Mumbai)
NAAC Accredited with "A" Grade (CGPA : 3.18)

A.Y. 2022-2023

Subject: Python **SAP ID: 60004220253 – Devansh Mehta**

Experiment No. 02

Aim: To study and implement input – output statements and control and loop statements.

Code and Output:

To find square root

```
import math
x=int(input("Enter the number whose sqrt has to be found:"))
print(math.sqrt(x))
```

```
PS C:\Users\devan\OneDrive\Desktop\Python Codes> pyt
Enter the number whose sqrt has to be found:100
10.0
```

To find length and breadth of rectangle:

```
x=int(input("Enter the length of the rectangle: "))
y=int(input("Enter the length of the rectangle: "))
perimeter=2*(x+y)
area=x*y
print(f"The perimeter is:{perimeter}")
print(f"The area is:{area}")
```

```
PS C:\Users\devan\OneDrive\Desktop\Pytho
Enter the length of the rectangle: 10
Enter the length of the rectangle: 20
The perimeter is:60
The area is:200
```

To swap 2 numbers:

```
a=int(input("Enter the first number:"))
b=int(input("Enter the second number:"))
temp=a
a=b
b=temp
print(f"The new a after swap is:{a}")
print(f"The new b after swap is:{b}")
```

```
PS C:\Users\devan\OneDrive\Desktop\Pyth
Enter the first number:10
Enter the second number:41
The new a after swap is:41
The new b after swap is:10
```

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Adding elements in List, Tuple, Set

```
x=["apple","oneplus","lenovo","hp","samsung"]
z=["mi","pastonji"]
y=("apple","oneplus","lenovo","hp","samsung")
x.append("dell")
print(x)
x=x+z
print(x)
x.pop()
print(x)
x.insert(2,"sony")
print(x)
z=("DELL",)
a=y+z
print(a)
```

```
PS C:\Users\devan\OneDrive\Desktop\Python Codes> python -u "c:\Users\devar
['apple', 'oneplus', 'lenovo', 'hp', 'samsung', 'dell']
['apple', 'oneplus', 'lenovo', 'hp', 'samsung', 'dell', 'mi', 'pastonji']
['apple', 'oneplus', 'lenovo', 'hp', 'samsung', 'dell', 'mi']
['apple', 'oneplus', 'sony', 'lenovo', 'hp', 'samsung', 'dell', 'mi']
('apple', 'oneplus', 'lenovo', 'hp', 'samsung', 'DELL')
```

Factorial

```
a=int(input("Enter the number whose factorial has to be found: "))
i=1
fact=1
while a!=0:
    fact=fact*a
    a=a-1
print(f"The factorial is:{fact}")
```

```
PS C:\Users\devan\OneDrive\Desktop\Python Codes> pythc
Enter the number whose factorial has to be found: 5
The factorial is:120
```

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Fibonacci

```
n=int(input("Enter the number of elements in the Fibonacci Series:"))
a=0
b=1
c=0
print("The series is:")
print(f"{a}")
print(f"{b}")
for i in range(n-2):
    c=a+b
    print(f"{c}")
    a=b
    b=c
```

```
Enter the number of elements in the Fibonacci Series:5
The series is:
0
1
1
2
3
```

Leap year

```
n=int(input("Enter the year to check if it is leap or no:"))
if n%400==0:
    print(f"{n} is a leap year")
elif n%100==0:
    print(f"{n} is not a leap year")
elif n%4==0:
    print(f"{n} is a leap year")
else:
    print(f"{n} is not a leap year")
```

```
PS C:\Users\devan\OneDrive\Desktop\Python Codes> pyt
Enter the year to check if it is leap or no:2004
2004 is a leap year
```

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Continue, break, pass

```
n=int(input("Enter a number"))
for i in range(n):
    if i==0:
        print("This is demonstration for pass statement")
        pass
    elif i==4:
        print("This is a demo for the continue statement")
        continue
    elif i==10:
        print("This was a long journey. Breaking the loop")
        break
    else:
        print(i)
```

```
Enter a number: 5
This is demonstration for pass statement
1
2
3
This is a demo for the continue statement
```