

Internals Assignment  
FYBSC Computer Science  
Semester 1

USCS 102 - Python Programming

Name: Maizah Shaikh

Class: FYCs

Roll No: 18

Submission Date: 29<sup>th</sup> September 2023

Faculty In-charge: Prof. Hasan Phudirawala

Output:

Enter a character: w

w is a lowercase

Output:

Enter a number: -4

-4 is a negative number



1) WAP to check whether the entered character is lowercase or uppercase.

Code:-

```
ch = input("Enter a character: ")
if (ch >= 'A' and ch <= 'Z'):
    print(ch, "is an uppercase")
elif (ch >= 'a' and ch <= 'z'):
    print(ch, "is a lowercase")
else:
    print("Character entered is neither uppercase nor lowercase")
```

2) WAP to check whether the entered number is positive, negative or 0.

Code:-

```
num = int(input("Enter a number: "))
if (num > 0):
    print(num, "is a positive number")
elif (num < 0):
    print(num, "is a negative number")
elif (num == 0):
    print("Entered number is", num)
else:
    print("Invalid input")
```

Output:

Enter any input from keyboard: 4995

4995 is a Number

Output:

2

3

5

7

11

13

17

19

These are the Prime Numbers from 1 to 21



Q3) WAP to check if the entered character is alphabet, symbol or a number.

Code :-

```
enter = input("Enter any input from Keyboard: ")
if (enter >= 'A' and enter <= 'Z') or
    (enter >= 'a' and enter <= 'z'):
    print(enter, "is a Character")
elif (enter >= 0 and enter <= 9):
    print(enter, "is a Number")
else:
    print(enter, "is a Symbol")
```

Q4) WAP to print Prime Numbers from 1-20.

Code:—

```
for num in range(1, 21):
    if (num > 1):
        for i in range(2, num):
            if (num % i == 0):
                break
        else:
            print(num)
print("These are the Prime Numbers from 1 to 21")
```

Output :

Enter a number : 1234

The reverse of 1234 is 4321

Output :

Enter the number : 40585

40585 is a Strong Number



Q5) WAP to find the reverse of a user entered number.

Code:-

```
num = int(input("Enter a number:"))
```

```
temp = num
```

```
rem = 0
```

```
rev = 0
```

```
while (num > 0):
```

```
    rem = num % 10
```

```
    rev = rev * 10 + rem
```

```
    num = num // 10
```

```
print("The reverse of", temp, "is: ", rev)
```

Q6) WAP to check for Strong Number.

Code:

```
num = int(input("Enter the number: "))
```

```
temp = num
```

```
sum = 0
```

```
while (num > 0):
```

```
    digit = num % 10
```

```
    fact = 1
```

```
    for i in range(1, digit + 1):
```

```
        fact = fact * i
```

```
    sum = sum + fact
```

```
    num = num // 10
```

```
if (sum == temp):
```

```
    print(temp, "is a Strong Number")
```

```
else:
```

```
    print(temp, "is not a Strong Number")
```

Output:

Enter the number: 99

99 is not a Prime Number

Output:

Enter a string: Maizah Shaikh@1004

Maizah Shaikh@1004 contains 12 letters, 4 digits  
and 2 special symbols



97) Python Program to check whether a number is Prime or not.

Code:-

```
num = int(input("Enter the number: "))
```

```
if (num > 1):
```

```
    for i in range(2, num):
```

```
        if (num % i == 0):
```

```
            break
```

```
    else:
```

```
        print(num, "is a Prime Number")
```

```
else:
```

```
    print(num, "is not a Prime Number")
```

98) WAP to Count all letters, digits and special symbols from a given string.

Code:

```
string = input("Enter a string: ")
```

```
char = 0
```

```
num = 0
```

```
sym = 0
```

```
for i in string:
```

```
    if i.isalpha():
```

```
        char = char + 1
```

```
    elif i.isdigit():
```

```
        num = num + 1
```

```
    else:
```

```
        sym = sym + 1
```

```
print(string, "contains", char, "letters, ", num, "digits and",  
      sym, "special symbols")
```

Q9) Print the following patterns:

a)

```

1
1 2
1 2 3
1 2 3 4
1 2 3 4 5
    
```

Code:

n=5

```

for i in range(1, n+1):
    for j in range(1, i+1):
        print(j, end=" ")
    print()
    
```

b)

```

1
2 2
3 3 3
4 4 4 4
5 5 5 5 5
    
```

Code:

n=5

```

for i in range(1, n+1):
    for j in range(i):
        print(i, end=" ")
    print()
    
```



c) A  
 A B  
 A B C  
 A B C D  
 A B C D E

Code:

n = 5

```
for i in range(1, n+1):
    for j in range(i):
        print(chr(65+j), end=" ")
    print()
```

d) A  
 B B  
 C C C  
 D D D D  
 E E E E E

Code:

n = 5

```
for i in range(n):
    print(chr(65+i), end=" ")
    for j in range(i):
        print(chr(65+i), end=" ")
    print()
```