IIHS (K.U.K.)

PRACTICAL OF PYTHON

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CLASS: BCA 3RD YEAR

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1. Conditional Statements or iteration

(a). Write a program for the submission of the Fibonacci Series.

```
n = 15
num1 = 0
num2 = 1
print(num1,num2,end=" ")
count = 1
while count<=n-2:
    next_num = num1+num2
    print(next_num,end=" ")
    num1 = num2
    num2 = next_num
    count+=1
```

OUTPUT:

0 1 1 2 3 5 8 13 21 34 55 89 144 233 377

(b). Write a program to print Pyramid

```
rows = int(input("Enter number of rows: "))

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

OUTPUT:

```
Enter number of rows: 4
*
* *
* * *
* * * *
```

2.Write a program to implement slicing of strings.

```
str = "LUCK"
print(str)
print(str[:])
print(str[3])
print(str[-2:])
print(str[1:4])
print(str[0:4:2])
print(str[::-1])
```

OUTPUT

```
LUCK
LUCK
K
CK
UCK
LC
KCUL
```

3. Write a program to find maximum,minimum and mean of number stored in list and tuple

```
l = [1,4,7,9,5,9,3,9]
t = (87,98,8,54,7675)
def calc_values(data,type):
  min = data[0]
  max = data[0]
  mean = 0;
  for elem in data:
    if(elem>max):
      max = elem
    if(elem<min):
      min = elem
    mean += elem
  print(f"for {type} min = {min} max = {max}
mean={mean}")
calc_values(l,"list")
calc_values(t,"tuple")
```

OUTPUT:

```
for list min = 1 max = 9 mean=47
for tuple min = 8 max = 7675 mean=7922
```

4.Write a program for counting the frequency of elements in a tuple.

```
t = (4,2,4,6,7,3,4,7,8)
frequency = {}
count = 1

for elem in t:
    if elem in frequency:
        frequency[elem] += 1
    else:
        frequency[elem] = 1

print(frequency)
```

OUTPUT:

{4: 3, 2: 1, 6: 1, 7: 2, 3: 1, 8: 1}

5.Take two sets and perform union, intersection and difference.

```
set1 = {2,3,5,4,5,7}
set2 = {1,3,9,5,2,8}

print(f"union =
{set1.union(set2)}")
print(f"intersection =
{set1.intersection(set2)}")
print(f"difference =
{set1.difference(set2)}")
```

OUTPUT:

```
union = {1, 2, 3, 4, 5, 7, 8, 9}
intersection = {2, 3, 5}
difference = {4, 7}
```

6.WAP creates a dictionary with the name of employee and their salary and then access them. Also count the number of a name appear in dictionary.

```
employee = {"luck": 50000, "karan": 51000,
"navdeep": 52000}
count = {}

for key in employee:
    print(f"{key} = {employee[key]}")
    if key in count:
        count[key] += 1
    else:
        count[key] = 1
print(count)
```

OUTPUT:

```
luck = 50000
karan = 51000
navdeep = 52000
{'luck': 1, 'karan': 1, 'navdeep': 1}
```

7.Make a Turtle and create a star with that

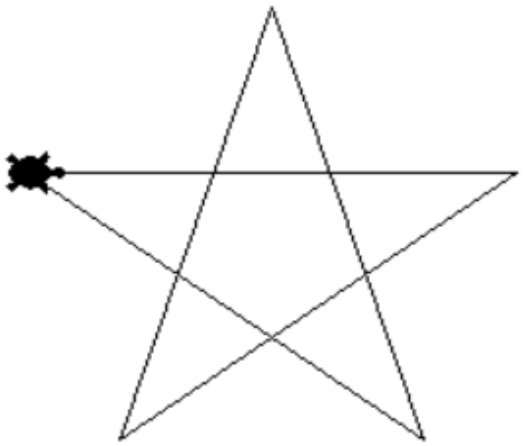
```
import turtle

turtle.shape("turtle")

for i in range(0, 5):
    turtle.forward(200)
    turtle.right(144)

turtle.done()
```

OUTPUT:



8.Write a program for Exception Handling.

```
try:
    a = [4, 7, 9, 6, 4]
    print(a[9])

except IndexError:
    print("index error")

finally:
    print("finally block")
```

OUTPUT:

```
index error
finally block
```

9.Write a program for file handling in read , write and append mode.

```
# read a file
file = open('demo.txt', 'r')
print(“data read : “)
for line in file:
    print (line)
file.close()
# write to file
file = open('demo.txt','w')
file.write("This is the write
command")
file.write("It allows us to write in a
particular file")
file.close()
# append to file
file = open('demo.txt', 'a')
file.write("This will add this line")
file.close()
```

OUTPUT:

```
This is a demo file
```