REPORT WRITING!

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REGISTER NUMBER:-PROV/BCA/7/24/039

PROGRAM 01:-Arithmetic Operators

```
a=int(input("enter a number:"))
b=int(input("enter a number:"))
print("addition:",a+b) # addition operator
print("subtraction: “,a-b) # subtraction operator
print("multiplication:”, a*b) # multiplication operator
print("division:”, a/b) # division operator
print("modulus:",a%b) # modulus operator
print("exponential:”, a**b) # exponential
print("floor division:”, a//b) # int division
```

OUTPUT:- enter a number: 10

enter a number: 3

addition: 13

subtraction: 7

multiplication: 30

division: 3.3333333333333335

modulus: 1

exponential: 1000

floor division: 3

EXPLAINATION: This program is done by using arithmetic operators like + (addition), -(subtraction) , * (multiplication), / (division), % (modules), ** (exponential), //(floor division)

PROGRAM 02: Comparison 0pertors

```
a=int(input("enter first number"))
b=int(input("enter second number"))
if a>b:# greater operator
  print("a is greater than b")
elif a==b:# assignment operator
   print("a and b are equal")
elif a<=b:# lesser operator with assignment operator
   print("a is lesser than b")
else:
   print("do nothing")
```

OUTPUT:- enter first number 10

enter second number 20

a is lesser than b

EXPLAINATION: This program is used by comparison operators like >(greater than), ==(assignment or equal to), <(lesser than) and we used conditional statement like(if-else)and I learned to find greater and lesser number .

PROGRAM 03:- Logical Operators

```
a=True
b=False
c=True
print(a and b)#logical operator and(*)
print(b and a)
print(a and c)
print(a or b)#logical operator or(+)
print(b or a)
print(a or c)
print(not a)#logical operator not(not)
print(not b)
print(not c)
```

OUTPUT:- False

False

True

True

True

True

False

True

False

EXPLAINTION:- this program, we used a logical opertors to find whether the statement is true or false like (or, and , not) for and we use (*) , for or we use(+) , for not we use (!).

PROGRAM 04:- String Manipulation

```
A=(input("enter the string"))
print(len(A))#length of string
print(A[0],A[-1])#first and last character
print(A[::-1])#reverse order
print(A.upper())#uppercase
print(A.lower())#lowercase
```

OUTPUT:- enter the string pragathi

8

p i

ihtagarp

PRAGATHI

pragathi

EXPLAINTION:- In this program we used a length of the string to check length of string name (8), we used index to print first and last character (p i)

we used reverse the word (::-1) (ihtagarp)

We used a.upper() because to print string name in upper case(PRAGATHI)

We used a.lower() because to print string name in lowercase(pragathi).

PROGRAM 05:- String Formatting

```
name=input("enter the name")
age=int(input("enter the age:"))
print("Hello",name,"your are",age,"years old")
```

OUTPUT:-

enter the name pragathi

enter the age: 18

Hello pragathi your are 18 years old

EXPLAINTION:-This program we used to take name and age form the user. Add variable name in better

where("Hello",name,(variable name)"your are",age,"years old").it is easy to execute .

PROGRAM 06:- Substring Search

```
m=str(input("sentence:"))
n=str(input("enter a word:"))
print(m.index(n))
```

OUTPUT:-

sentence: the seven wonders of world

enter a word: wonders

10

EXPLAINTION:- This program is done by using str datatype to get in string format (sentence and word) we used the index keyword to find the position of the word .

PROGRAM 07:- List Operations

```
a=int(input("enter the number 1:"))
b=int(input("enter the number 2:"))
c=int(input("enter the number 3:"))
d=int(input("enter the number 4:"))
e=int(input("enter the number 5:"))
```

```
f=(a,b,c,d)#CREATE list
print([f])
print(sum(f))#sum of list
print(max(f))#largest number
print(min(f))#smallest number
```

OUTPUT:- **enter the number 1: 1**

enter the number 2: 2

enter the number 3: 3

enter the number 4: 4

enter the number 5: 5

[(1, 2, 3, 4)]

10

4

1

EXPLAINTION:- This program is very easy. We have taken a input from the user and by using this we create a list[]. And we used find the sum() and min() and max() functions.

PROGRAM 08:- list manipulation

```
fruits=["apple","banana","dargon fruit","mango","custard apple"]
print(fruits)
```

```
fruits.append("pineapple")#add one more fruit
print(fruits)
fruits.remove("banana")#remove second fruit
print(fruits)#updated list
```

OUTPUT:-

['apple', 'banana', 'dargon fruit', 'mango', 'custard apple']

['apple', 'banana', 'dargon fruit', 'mango', 'custard apple', 'pineapple']

['apple', 'dargon fruit', 'mango', 'custard apple', 'pineapple']

EXPLAINTION:-This is very easy program. We have used a list by giving list name as fruits and we used append() function because to add one more fruit in the list, and we have used remove() function to remove one fruit from the list. At last we have to print updated list .

PROGRAM 09:- Sorting a List

```
A = int(input("Enter the number 1: "))
B = int(input("Enter the number 2: "))
C = int(input("Enter the number 3: "))
D = int(input("Enter the number 4: "))
E = int(input("Enter the number 5: "))
```

```
f = [A, B, C, D, E]
f.sort()#sort the list in ascending order
print("Ascending Order of the list: ", f)
f.sort(reverse=True)#sort the list in descending order
print("Descending Order of the list: ", f)
```

OUTPUT:-

Enter the number 1: 1

Enter the number 2: 2

Enter the number 3: 3

Enter the number 4: 4

Enter the number 5: 5

Ascending Order of the list: [1, 2, 3, 4, 5]

Descending Order of the list: [5, 4, 3, 2, 1]

EXPLAINTION:- This program is done by using list which input is taken from the user. We used sort() function because to find the ascending order and descending order. we used reverse =true to convert the ascending order and reverse=false to descending order in the list.

PROGRAM 10:- List Slicing

```
Numbers=[1,2,3,4,5,6,7,8,9,10]
```

```
print(Numbers[:5]) #first 5 elements

print(Numbers[-5:])# last 5 elements

print(Numbers[1:7])#index 2 and index 7
```

OUTPUT:-

[1, 2, 3, 4, 5]

[6, 7, 8, 9, 10]

[2, 3, 4, 5, 6, 7]

EXPLAINTION:-This is program is easy. We used the list to print first 5 elements using like[:5] and last 5 elements like

[-5:] and we have to print the elements from index 2 to 7 so we used [1:7].

BOUNS QUESTION

```
students = []

for _ in range(3):

    name = input("Enter student name: ")

    scores = [float(input(f"Enter score {i+1}: ")) for i in range(3)]

    students.append([name, scores])


for student in students:

    avg = sum(student[1]) / 3
```

```
    print(student[0], "'s average score:", avg)
```

OUTPUT:-

Enter student name: pragathi BR

Enter score 1: 98

Enter score 2: 99

Enter score 3: 100

Enter student name: prakruthi BR

Enter score 1: 97

Enter score 2: 100

Enter score 3: 100

Enter student name: yashaswini KS

Enter score 1: 95

Enter score 2: 96

Enter score 3: 100

Pragathi BR 's average score:' 99.0

Prakruthi BR 's average score:' 99.0

Yashaswini KS 's average score:' 97.0

EXPLAINTION:- This program I used for loop. We have to give range 3 and get the names and scores from the user (i+1). For I in range then append function . to find the avg sroce we have add up the 3 subjects mark and divide by 3 and using

print (student[0],”average score,avg) we will find the students name with the total percentage.

LINK:-
https://github.com/Pragathi2006/Python_Assignment-

THANK YOU…