REPORT WRITING!

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Program 01:-Arithmetic Operators

```
a=int(input('enter first number'))
b=int(input('ennter the second number'))
print('addition:',a+b)
print('subraction:',a-b)
print('multiplication:',a*b)
print('division:',a/b)
print('modulus:',a%b)
print('exponentiation:',a**b)
print('floor division:',a//b)
```

OUTPUT:-

```
enter first number 10
ennter the second number 3
addition: 13
subraction: 7
multiplication: 30
```

division: 3.3333333333333335

modulus: 1

exponentiation: 1000

floor division: 3

EXPLANATION:

Thia program is done by Arthimetic Operators like

Addition(+)

subtraction(-)

multiplication(*)

division(/)

modulus(%)

Exponentiation(**)

floor division(//).

Program:2-comparsion opertors

```
a=int(input("enter first number"))
b=int(input("enter second number"))
if a>b:# greater opertor
  print("a is greater than b")
```

```
elif a==b:# assigment opertor
   print("a and b are equal")
elif a<=b:# lesser opertor with assigment opertor
   print("a is lesser than b")
else:
   print("do nothing")
```

OUTPUT:

enter first number 10

enter second number 3

a is greater than b

EXPLANATION:

The above code allows the user to input two integers and then compares these two numbers using

comparison operators (>, ==, and <=). It prints the results of these comparisons, which will be either True

or False.

Program:3-logical opertors

```
a=True
```

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

OUTPUT:-

```
False
False
True
True
True
True
False
True
```

False

EXPLANATION:-

The above code takes three boolean inputs from the user and converts them into actual boolean values. It then performs and prints the results of logical operations: AND, OR, and the negation of each value

Program:4-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 risha
5
r a
ahsir
RISHA
```

risha

EXPLANATION:-

The above code takes a string input from the user and displays various information about it: its length, the

first and last characters, the string in reverse order, and its uppercase and lowercase forms.

Program:5-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 Risha

enter the age: 18

Hello Risha your are 18 years old

EXPLANATION:-

The above code collects a user's name and age and then displays a personalized

greeting that includes both pieces of information i.e, name and age.

Program:6-substring search

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

OUTPUT:-

sentence: i love you

enter a word: love

2

EXPLANATION:-

The above code takes a sentence and a word as input from the user. It checks if the word exists in the

sentence and prints the starting index of the word if found; otherwise, it notifies the user that the word was not found.

Program:7-list opertions

```
a=int(input("enter the number1:"))
b=int(input("enter the number2:"))
c=int(input("enter the number3:"))
d=int(input("enter the number4:"))
e=int(input("enter the number5:"))
f=(a,b,c,d)
print([f])
print(sum(f))
print(max(f))
print(min(f))
```

OUTPUT:-

```
enter the number1: 1
enter the number2: 2
enter the number3: 3
enter the number4: 4
enter the number5: 5
[(1, 2, 3, 4)]
10
```

4

1

EXPLANATION:

The above code takes five numbers from the user, stores them in a list, and prints the list. It then calculates and

displays the sum of the numbers, as well as the largest and smallest numbers in the list.

Program:8-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']

EXPLANATION:

The above code creates a list of five favorite fruits, adds another fruit

('APPLE'), removes one fruit (‘BANANA'), and then prints the updated list

of fruits.

Program:9-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]
```

EXPLANATION:

The above code takes five numbers from the user, stores them in a list, prints the original list, sorts it in ascending

order, and prints the sorted list. It then sorts the same list in descending order and prints that as well.

program 10:-list slicing

```
Number=[1,2,3,4,5,6,7,8,9,10]
print(Number[:5])
print(Number[-5:])
print(Number[1:7])
```

OUTPUT:-

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

EXPLANATTION:

The above code initializes a list of numbers from 1 to 10 and demonstrates slicing to

print:

- **The first five elements,**
- **The last five elements, and**
- **The elements from index 2 to index 7.**

BONUS QUESTION:

program 11(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: Risha
Enter score 1:  69
Enter score 2:  72
Enter score 3:  93
Enter student name: shashini
Enter score 1:  98
Enter score 2:  73
```

Enter score 3: 62

Enter student name: anuska

Enter score 1: 95

Enter score 2: 98

Enter score 3: 88

Risha 's average score:' 78.0

shashini 's average score:' 77.66666666666667

anuska 's average score:' 93.66666666666667

Click to add a cell.

EXPLANATION

This above code creates a program that collects the names and scores of three

students in three subjects. It calculates and displays each student's average score after

all input has been gathered.

LINK:-

https://github.com/RISHAMADHURI/PYTHON-ASSIGMENT/upload/main

THANK YOU!