REPORT WRITING!!

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Program -1

a**=**int(input('Enter the first number: '))

b**=**int(input('Enter the second number: '))

adding**=**a**+**b

substraction**=**a**-**b

multiplication**=**a**\***b

division**=**a**/**b

modulus**=**a**%b**

exponential**=**a**\*\***2

floor**=**a**//**b

print('adding: ', adding)

print('substraction: ', substraction)

print('multiplication: ', multiplication)

print('division: ', division)

print('modulus: ', modulus)

print('exponential: ', exponential)

print('floor:', floor)

Output:-

adding: 13

substraction: 7

multiplication: 30

division: 3.3333333333333335

modulus: 1

exponential: 100

floor: 3

Explanation :- This program is done by using arithmetic operators like +,-,\*, / , %,\*\*,// and taken the two values of a and b and printed with respected arithmetic operators.

Program-2

a**=**int(input('Enter first number: '))

b**=**int(input('Enter second number: '))

**if** a**>**b:

print('first number is greater than second')

**elif** a**==**b:

print('first number is equal to second number')

**elif** a**<=**b:

print('a is smaller than or equal to b')

0utput:-

first number: 23

enter second number: 12

first number is greater than second number

Explanation:- This program uses comparison operators (<, >, ==) along with if, elif, and else statements to determine and display the greater and lesser of two input numbers.

Program-3

a**=**input("enter a boolean value 1:-")**.**strip()**.**lower()**==**"true"

b**=**input("enter a boolean value 2:-")**.**strip()**.**lower()**==**"true"

c**=**input("enter a boolean value 3:-")**.**strip()**.**lower()**==**"true"

print(a **and** b **and** c)*#*

print(a **or** b **or** c)

print(**not** a)

print(**not** b)

print(**not** c)

Output:-

True

False

True

False

True

False

True

False

Explanation:- This program utilizes the logic gates AND, OR, and NOT, where AND outputs true only if both values are true, OR outputs true if at least one value is true, and NOT inverts the input, producing the opposite value.

Program-04

a**=**input('Enter a word: ')

b**=**len(a)

c**=**a[0],a[**-**1]

d**=**a[::**-**1]

e**=**a**.**upper()

f**=**a**.**lower()

print(b)

print(c)

print(d)

print(e)

print(f)

output:-

5

a

l

luhta

ATHUL

athul

Explanation :- This program calculates the length of a string using the length function, which includes spaces, identifies the first and last characters based on their index positions, and employs the upper() method to convert the string to uppercase and the lower() method to convert it to lowercase.

Program-5

a**=**input('Enter a name: ')

b**=**int(input('Enter the age: '))

print('Hello',a,'you are',b,'years old')

Output:-

enter your name= athul

enter your age= 17

Hello athul you are 17 years old

Explanation:- This simple program asks the user for their name and age, then combines these inputs into a greeting message that says, "Hello, [name], you are [age] years old," making it easy to implement and execute.

Program-6

a=input("Enter a sentence:")

b=input("Enter the word:")

c=a.find(b)

if c !=-1:

print(f"The word {b} found at {c} index position")

else:

print(f"The {b} word not found")

Output:-

Enter a sentence: Athul is great

Enter the word: great

The word great found at 11 index position

Explanation:- In this program we have to find the position of the index I used print(r.index(s)) this print statements. We have to use if-else statements but the condition doesn’t lies the other will

Program-7

**for** i **in** range(1,6):

b**=**int(input('enter a number: '))

a**.**append(b)

c**=**sum(a)

d**=**max(a)

e**=**min(a)

print(a)

print(c)

print(d)

print(e)

output:-

[45, 46, 48, 49, 50]

238

50

45

Explanation:- his program utilizes the sum() function to calculate the total of a list of numbers while employing the max() and min() functions to identify the largest and smallest values within that list.

Program-8

fruits=['apple' ,'mango', 'grape', 'orange', 'watermelon']

print(fruits)

fruits.append('pineapple')

print(fruits)

fruits.remove('grape')

print(fruits)

output:-

['apple', 'mango', 'grape', 'orange', 'watermelon']

['apple', 'mango', 'grape', 'orange', 'watermelon', 'pineapple']

['apple', 'mango', 'orange', 'watermelon', 'pineapple']

Explanation:- In this program, we manipulate a list by using the append() function to add new items to the end, while the pop() function removes elements at a specified index; we then display the updated list using a print statement.

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Program-9

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()

print("Ascending Order of the list: ", f)

f.sort(reverse=True)

print("Descending Order of the list: ", f)

output:- Enter the number 1: 23

Enter the number 2: 6

Enter the number 3: 90

Enter the number 4: 76

Enter the number 5: 0

Ascending Order of the list: [0, 6, 23, 76, 90]

Descending Order of the list: [90, 76, 23, 6, 0]

Explanation: This program sorts a list based on user input, allowing for arrangement in ascending order by setting reverse=True, while sorting in descending order can be achieved by using reverse=False.

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Program -10

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

print(Numbers[:5])

print(Numbers[-5:])

print(Numbers[1:7])

output:- [1, 2, 3, 4, 5] [6, 7, 8, 9, 10] [2, 3, 4, 5, 6, 7]

Explanation:- This program employs the slicing format [starting:ending] to extract segments from a list: [:5] retrieves elements from the beginning up to, but not including, the 5th index (thus including indices 0 to 4), [-5:] accesses the last five elements of the list starting from the 5th last, and [1:5] selects elements from the 1st index to the 4th index.