**REPORT WRITING**

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**CLASS: BCA -A**

**PROGRAM:-1**

**a=int(input("Enter the number:"))**

**b=int(input("Enter the number:"))**

**print("Addition:",a+b)**

**print("Subtraction:",a-b)**

**print("Multiplication:",a\*b)**

**print("Modulus:",a%b)**

**print("Division:",a/b)**

**print("Exponentiation:",a\*\*b)**

**print("Floor division:",a//b)**

**OUTPUT**

**Enter the number: 10**

**Enter the number: 3**

**Addition: 13**

**Subtraction: 7**

**Multiplication: 30**

**Modulus: 1**

**Division: 3.3333333333333335**

**Exponentiation: 1000**

**Floor division: 3**

EXPLANATION**:- This program is done by using arthimetic operators like (+,-,\*,/,%,//,\*\*) and the values are taken as a and b to print the output**

**PROGRAM:-2**

**a=int(input("enter the first number:"))**

**b=int(input("enter the second number:"))**

**if a>b:**

**print("first number is greather then second")**

**elif a==b:**

**print("first number is equal to second")**

**else:**

**print("first number is less than or equal to the second")**

**OUTPUT:-**

**enter the first number: 6**

**enter the second number: 7**

**first number is less than or equal to the second**

Explanation**:- This Python program begins by taking two integers as input from the user, storing them in the variables a and b. It then uses conditional statements (if, elif, and else) to compare the two numbers and display the appropriate message. First, the program checks if a is greater than b. If this condition is true, it prints a message that a is the greater number. If a is not greater than b, the program checks if the two numbers are equal using the elif statement. If a and b are equal, it prints a message stating that both numbers are the same. If both statement is false the program executes the else block, printing a message that the first number (a) is smaller than the second number (b).**

**EXPLANATION:- This program is done by using comparstion**

**PROGRAM:- 3**

**a=True**

**b=False**

**c=True**

**print(a and b)**

**print(b and c)**

**print(c and a)**

**print(a or b)**

**print(b or c)**

**print(c or a)**

**print(not b)**

**print(not c)**

**print(not a)**

**OUTPUT:-**

**False**

**False**

**True**

**True**

**True**

**True**

**True**

**False**

**False**

EXPLANATIONS:-

**In this program 3 boolean variables are there a ,b and c which are assigned the values True, False, and True respectively. The program uses logical operations like and, or, and not to combine and manipulate these boolean values, printing the results.**

**PROGRAM:- 4**

**str=("Kavi varsshini")**

**print(len(str))**

**print(str[:0],str[-1:])**

**print(str[::-1])**

**print(str.lower())**

**print(str.upper())**

**OUTPUT:-**

**14**

**i**

**inihssrav ivaK**

**kavi varsshini**

**KAVI VARSSHINI**

**EXPLANATION:-**

**print(str[::-1]):This line prints the string in reverse order**

**print(str.upper()):This converts the entire string to uppercase using the upper() method and prints the result. This program takes a string as input from the user and performs various operations on it**

**print(len(str)):This line calculates the length of the input string using the len() function**

**print(str[0:1],str[-1:]):This part of the program prints the first and the last character of the string**

**PROGRAM 5:-**

**Name=input("Name:")**

**Age=int(input("Age:"))**

**print("Hello",Name,"you are",Age, "years old")**

**OUTPUT:-**

**Name: Kavi varshini**

**Age: 18**

**Hello Kavi varshini you are 18 years old**

**EXPLANATION:-**

**This program takes the user's name and age as input and uses multiple arguments in the print() function, separating them with commas.**

**PROGRAM:- 6**

**sentence=input("enter any sentence")**

**s=sentence.split()**

**word=input(" enter a word in the sentence")**

**if word in s:**

**index=s.index(word)**

**print(index)**

**else:**

**print("word not found")**

**OUTPUT:-**

**enter any sentence what are u doing**

**enter a word in the sentence u**

**2**

**EXPLANATION:-**

**In this program the user to enter a sentence and stores it in the variable sentence as a string and uses the split() method to break the sentence into a list of words The program asks the user to input a specific word they want to search for within the sentence. By using if condition checks whether the word entered by the user is present in the list s. If the word is found, the program uses the index() method to find the position of the word in the list s and stores this index value in the variable index then prints the index of the word, by using else condition If the word is not found in the list s. the program print a message like word not found**

**PROGRAM:-7**

**nums=[]**

**for i in range(5):**

**num=int(input("enter a number"))**

**nums.append(num)**

**print(nums)**

**print(sum(nums))**

**print(max(nums))**

**print(min(nums))**

**OUTPUT:-**

**enter a number 4**

**enter a number 3**

**enter a number 9**

**enter a number 3**

**enter a number 3**

**[4, 3, 9, 3, 3]**

**22**

**9**

**3**

**EXPLANATION:-**

**In this program user to input five numbers and stores them in a list .An empty list is created to store the numbers that the user will input A for loop runs five times using range(5), allowing the user to input five numbers The entered number is added to the list using the append() method.**

**The sum() function is used to calculate and print the sum of all the numbers in the nums list.The max() function is used to find and print the largest number in the nums list .The min() function is used to find and print the smallest number in the nums list.**

**PROGRAM :- 8**

**lst=[]**

**for i in range(5):**

**f=input("enter fruit name:")**

**lst.append(f)**

**print(lst)**

**add\_f=input("enter fruit name:")**

**lst.append(add\_f)**

**print(lst)**

**lst.pop(1)**

**print(lst)**

**OUTPUT:-**

**enter fruit name: apple**

**enter fruit name: orange**

**enter fruit name: watermelon**

**enter fruit name: pineapple**

**enter fruit name: kiwi**

**['apple', 'orange', 'watermelon', 'pineapple', 'kiwi']**

**enter fruit name: mango**

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

**['apple', 'watermelon', 'pineapple', 'kiwi', 'mango']**

**EXPLANATION:-**

**This program allows the user to create a list of fruit names, add another fruit to the list, and then remove a specific fruit from the list .An empty list named lst is created to store the fruit names that the user will input. A for loop runs five times , allowing the user to input five fruit names.The entered fruit name is appended to the lst list using the append() method. This process continues for all five iterations, resulting in a list of five fruit names.The program uses the pop() method to remove the fruit at index 1 from the list.**

**PROGRAM:-9**

**lst=[]**

**for i in range(5):**

**num=input("enter the numbers:")**

**lst.append(num)**

**print(lst)**

**lst.sort()**

**print(lst)**

**lst.sort(reverse=True)**

**print(lst)**

**OUTPUT:-**

**enter the numbers: 5**

**enter the numbers: 3**

**enter the numbers: 6**

**enter the numbers: 2**

**enter the numbers: 1**

**['5', '3', '6', '2', '1']**

**['1', '2', '3', '5', '6']**

['6', '5', '3', '2', '1']

**EXPALNATION:-**

**This program allows the user to input a series of numbers, stores them in a list, and then sorts the list in both ascending and descending order .An empty list named is created to store the numbers entered by the user. A for loop is set to run five times The entered number is appended to the lst list using the append() method.The sort() method is which sorts the list in ascending order .The sort() method is called again, but this time with the argument reverse=True, which sorts the list in descending order**.

**PROGRAM:-10**

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

**print( num[:5])**

**print( num[5:])**

**print( num[2:7])**

**OUTPUT**

**[1, 2, 3, 4, 5]**

**[6, 7, 8, 9, 10]**

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

**EXPLANATION:-**

**print(num[:5]):This prints the first five elements of the list.**

**print(num[5:]):This prints all elements from the sixth element to the end of the list.**

**print(num[2:7]):This prints the elements from the third element (index 2) to the seventh element (index 6).**