



BHARATIYA VIDYA BHAVAN'S
SARDAR PATEL INSTITUTE OF TECHNOLOGY
Bhavan's Campus, Munshi Nagar, Andheri (West), Mumbai – 400058-India
Department of Computer Engineering

| | |
|-----------------------|----------------------|
| Name | Debjit Ghosal |
| UID no. | 2023300065 |
| Experiment No. | 1 |

| | |
|--|--|
| AIM: | |
| Program 1 | |
| PROBLEM STATEMENT : | 1) Write a python program for menu driven Basic Calculator (Add, Subtract, Multiply, Divide) |
| PROGRAM: | <pre>ch = 0 while ch!=5: print ("1.Add\n2.Sub\n3.Mul\n4.Div\n5.Exit") ch = int(input()) if ch == 5: break a = int(input ("Enter a = ")) b = int(input ("Enter b = ")) if ch == 1: print(a+b) elif ch == 2: print(a-b) elif ch == 3: print(a*b) elif ch ==4: print(a/b)</pre> |
| RESULT: 1.Add 2.Sub 3.Mul 4.Div 5.Exit 1 Enter a = 25 Enter b = 35 60 1.Add | |



BHARATIYA VIDYA BHAVAN'S
SARDAR PATEL INSTITUTE OF TECHNOLOGY
Bhavan's Campus, Munshi Nagar, Andheri (West), Mumbai – 400058-India
Department of Computer Engineering

2.Sub
3.Mul
4.Div
5.Exit
5

I have understood how to create menu driven program using python.

Program 2

**PROBLEM
STATEMENT :**

2) Python program to print all odd numbers in a range

PROGRAM:

```
start = int(input("Enter starting Number: "))  
end = int (input("Enter end Number: "))  
  
for i in range(start, end):  
    if i % 2 != 0:  
        print(i)
```

RESULT: Enter starting Number: 50
Enter end Number: 70
51 53 55 57 59 61 63 65 67 69

I have understood how to print odd numbers using basic syntax of python

Program 3

**PROBLEM
STATEMENT:**

Finding the reverse of a number using while loops in python

PROGRAM:

```
num = int(input("Enter a number: "))  
reversed_num = 0  
  
while num != 0:  
    digit = num % 10  
    reversed_num = reversed_num * 10 + digit  
    num //= 10  
  
print("Reversed Number: " + str(reversed_num))
```

RESULT: Enter a number: 123
Reversed Number: 321

I have understood about reversing and recursion of strings. Here I have done via while loop as per instructions and executed the program



BHARATIYA VIDYA BHAVAN'S
SARDAR PATEL INSTITUTE OF TECHNOLOGY
Bhavan's Campus, Munshi Nagar, Andheri (West), Mumbai – 400058-India
Department of Computer Engineering

| Program 4 | |
|--|---|
| PROBLEM STATEMENT: | Finding whether a string is Palindrome or not using python |
| PROGRAM: | <pre>text = input("Enter a string: ").lower().replace(" ", "") if text == text[::-1]: print("The string is a palindrome.") else: print("The string is not a palindrome.")</pre> |
| <p>RESULT: Enter a string: 54322345 The string is a palindrome I have understood the concept of palindrome and how to use if and else statements to imply it on python.</p> | |
| Program 5 | |
| PROBLEM STATEMENT: | Write a Modular python program for Fibonacci series |
| PROGRAM: | <pre>def fibonacci(n): a, b = 0, 1 for i in range(n): print(a, end=" ") a, b = b, a + b num_terms = int(input("Enter the number of terms: ")) fibonacci(num_terms)</pre> |
| <p>RESULT: Enter the number of terms: 15 0 1 1 2 3 5 8 13 21 34 55 89 144 233 377 I have understood fibonacci series and how to execute program on python using basic syntax of for loops.</p> | |
| CONCLUSION: | I have learnt basics of python and its application. I have also learnt about recursion and its applications. Knowing that recursion has a very vast usage and it can be applied on all the programs except the first program as it is menu driven program. I have also understood how to run python in terminal and execute it. I have now got a vast idea of python basics and its syntax. |