

LAB-9-PROGRAMS

PROGRAM-1-ARITHMETIC OPERATORS USING POINTERS

```
// ARITHMETIC OPERATORS USING POINTERS
#include <stdio.h>
int main()
{
    int num1, num2;
    int *ptr1, *ptr2;
    int sum, diff, mul, div, remainder;
    ptr1=&num1;
    ptr2=&num2;
    printf("Enter two numbers = ");
    scanf("%d%d", ptr1, ptr2);
    sum=(*ptr1) + (*ptr2);
    diff=(*ptr1) - (*ptr2);
    mul=(*ptr1) * (*ptr2);
    div=(*ptr1) / (*ptr2);
    remainder=((*ptr1) % (*ptr2));
    printf("Sum = %d\n", sum);
    printf("Difference = %d\n", diff);
    printf("Product = %d\n", mul);
    printf("Quotient = %d\n", div);
    printf("Remainder = %d\n", remainder);
    return 0;
}
```

OUTPUTS:

```
Enter two numbers = 34 68
Sum = 102
Difference = -34
Product = 2312
Quotient = 0
Remainder = 34

Process returned 0 (0x0)    execution time : 14.907 s
Press any key to continue.
```

```
Enter two numbers = 9 9
Sum = 18
Difference = 0
Product = 81
Quotient = 1
Remainder = 0

Process returned 0 (0x0)    execution time : 16.020 s
Press any key to continue.
```

PROGRAM-2-SWAPPING OF TWO NUMBERS USING POINTERS

```
// SWAPPING OF TWO NUMBERS USING POINTERS
#include <stdio.h>
int main()
{
    int num1, num2;
    printf("Enter value of num1 = ");
    scanf("%d", &num1);
    printf("Enter value of num2 = ");
    scanf("%d", &num2);
    printf("Before Swapping = num1 is = %d, num2 is: %d\n", num1, num2);
    swap(&num1, &num2);
    printf("After Swapping = num1 is = %d, num2 is: %d\n", num1, num2);
    return 0;
}

void swap(int *x, int *y)
{
    int t;
    t = *x;
    *x = *y;
    *y = t;
}
```

OUTPUTS:

```
Enter value of num1 = 10
Enter value of num2 = 20
Before Swapping = num1 is = 10, num2 is: 20
After Swapping = num1 is = 20, num2 is: 10
```

```
Process returned 0 (0x0)   execution time : 8.887 s
Press any key to continue.
```

```
Enter value of num1 = 45
Enter value of num2 = 89
Before Swapping = num1 is = 45, num2 is: 89
After Swapping = num1 is = 89, num2 is: 45
```

```
Process returned 0 (0x0)   execution time : 9.486 s
Press any key to continue.
```

**PROGRAM-3- TO READ DATA FROM THE KEYBOARD, WRITE IT TO A FILE
CALLED BMSCE, AGAIN READ THE SAME DATA FROM THE BMSCE FILE**

```
// READ ADTA FROM KEYBOARD,WRITE IT TO A FILE BMSCE
#include<stdio.h>
#include<conio.h>
void main()
{
    FILE * fp;
    char input[100];
    int i;
    fp=fopen("C:\\BMSCE.txt","w");
    printf("\nEnter the content to be inputted into the BMSCE file: ");
    gets(input);
    fprintf(fp,"%s",input);
    fp=fopen("C:\\BMSCE.txt","r");
    printf("Data read:");
    fscanf(fp,"%s",input);
    printf("\n %s",input);
    fclose(fp);
    getch();
}
```

OUTPUTS:

```
Enter the content to be inputted into the BMSCE file: C Programming
Data read:
C Programming
Process returned 13 (0xD)   execution time : 8.978 s
Press any key to continue.
_
```

```
Enter the content to be inputted into the BMSCE file: Good Morning
Data read:
Good Morning
Process returned 13 (0xD)   execution time : 20.380 s
Press any key to continue.
```