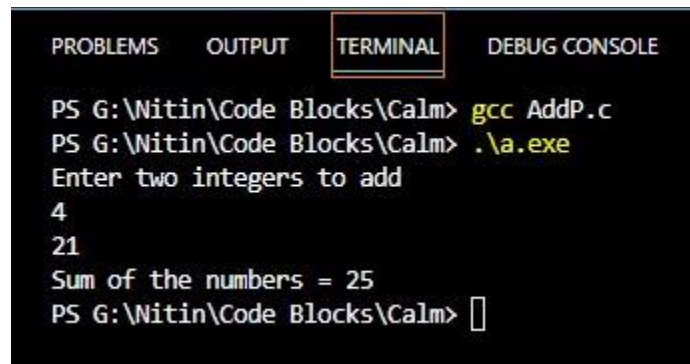


CSB Lab-9

Q1) Do the following using pointers

a. add two numbers

```
#include <stdio.h>
int main()
{
    int m, n, *p, *q, sum;
    printf("Enter two integers to add\n");
    scanf("%d%d", &m, &n);
    p = &m;
    q = &n;
    sum = *p + *q;
    printf("Sum of the numbers = %d\n", sum);
    return 0;
}
```



```
PROBLEMS  OUTPUT  TERMINAL  DEBUG CONSOLE

PS G:\Nitin\Code Blocks\Calm> gcc AddP.c
PS G:\Nitin\Code Blocks\Calm> ./a.exe
Enter two integers to add
4
21
Sum of the numbers = 25
PS G:\Nitin\Code Blocks\Calm> 
```

b. swap two numbers using a user defined function

```
#include<stdio.h>
void swap(int *x, int *y){
    int temp;
    temp = *x;
    *x = *y;
    *y = temp;
}
int main(){
    int a, b;
    printf("Enter values for a and b:\n");
```

```

scanf("%d%d", &a, &b);
printf("Before swapping: a = %d and b = %d", a, b);
swap(&a, &b);
printf("\nAfter swapping: a = %d and b = %d\n", a, b);
return 0;
}

```

The screenshot shows a terminal window with the following content:

```

PROBLEMS  OUTPUT  TERMINAL  DEBUG CONSOLE

PS G:\Witin\Code Blocks\Calm> gcc SwapP.c
PS G:\Witin\Code Blocks\Calm> .\a.exe
Enter values for a and b:
16
27
Before swapping: a = 16 and b = 27
After swapping: a = 27 and b = 16
PS G:\Witin\Code Blocks\Calm> 

```

Q2) Compute sum of the elements stored in an array using pointers and user defined function.

```

#include<stdio.h>
void main() {
    int n, i, *ptr, sum = 0;
    printf("Enter the number of elements: ");
    scanf("%d", &n);
    int numArray[n];
    printf("Enter the elements : ");
    for (i = 0; i < n; i++)
        scanf("%d", &numArray[i]);
    ptr = numArray;
    for (i = 0; i < n; i++) {
        sum = sum + *ptr;
        ptr++;
    }
    printf("The sum of array elements : %d", sum);
}

```

```
PROBLEMS    OUTPUT    TERMINAL    DEBUG CONSOLE

PS G:\Nitin\Code Blocks\Calm> gcc SumA.c
PS G:\Nitin\Code Blocks\Calm> .\a.exe
Enter the number of elements: 4
Enter the elements : 7
4
9
2
The sum of array elements : 22
PS G:\Nitin\Code Blocks\Calm> 
```

Q3) Write a program to create a structure named company which has name, address, phone and noOfEmployee as member variables. Read name of company, its address, phone and noOfEmployee. Finally display these members's value.

```
#include <stdio.h>

#include <stdlib.h>
struct company{
    char name[20],address[50];
    int phone,noOfEmployee;
};
int main(){
    struct company C1;
    printf("Enter name: ");
    scanf("%s",&C1.name);
    printf("Enter address: ");
    scanf("%s",&C1.address);
    printf("Enter phone no: ");
    scanf("%d",&C1.phone);
    printf("Enter No of employees: ");
    scanf("%d",&C1.noOfEmployee);
    printf("Name: %s\nAddress: %s\nPhone No: %d\nNo Of Employees: %d",C1.name,C1.address,C1.phone,C1.noOfEmployee);
}
```

PROBLEMS

OUTPUT

TERMINAL

DEBUG CONSOLE

```
PS G:\Witin\Code Blocks\Calm> gcc Company.c
```

```
PS G:\Witin\Code Blocks\Calm> .\a.exe
```

```
Enter name: Heinz
```

```
Enter address: Gutenberg,Stock
```

```
Enter phone no: 2716
```

```
Enter No of employees: 32
```

```
Name: Heinz
```

```
Address: Gutenberg,Stock
```

```
Phone No: 2716
```

```
No Of Employees: 32
```

```
PS G:\Witin\Code Blocks\Calm> 
```