20CSE1030 Zubin Shah Section B

1. Write a program with function to add given 2 integer numbers

a) Where the function return type is void and no parameters are passed to function

```c
#include<stdio.h>
void add(){
    int a,b;
    scanf("%d%d",&a,&b);
    printf("%d+%d=%d",a,b,a+b);

}
int main()
{
    add();
    return 0;
}
```

PROBLEMS OUTPUT DEBUG CONSOLE

TERMINAL

```
T study\Programs\Assignment_5\"q.a
4 5
4+5=9
D:\Documents_D_Drive\~NIT study\Programs\Assignment_5>
```

b) When parameters are passed to function and function return type is void

```c
#include<stdio.h>
void add(int a,int b){
    printf("%d+%d=%d",a,b,a+b);
}
int main()
{
    int a,b;
    scanf("%d%d",&a,&b);
    add(a,b);
return 0;
}
```

PROBLEMS OUTPUT DEBUG CONSOLE

TERMINAL CODE

```
\~NIT study\Programs\Assignment_5\"q_1_b
3 5
3+5=8
D:\Documents_D_Drive\~NIT study\Programs\Assignment_5>
```

c) When parameters are passed and function returns a result

```c
#include<stdio.h>
int add(int a,int b){
    return a+b;
}
int main()
{
    int a,b,output;
    scanf("%d%d",&a,&b);
    output=add(a,b);
    printf("%d+%d=%d",a,b,output);
return 0;
}
```

PROBLEMS OUTPUT DEBUG CONSOLE

TERMINAL CODE

```
3
11
3+11=14
D:\Documents_D_Drive\~NIT study\Programs\Assignment_5>
```

1. Write a program with a function to swap 2 numbers.

```c
#include<stdio.h>
void swap(int *a,int *b){
    int temp=*a;
    *a=*b;
    *b=temp;
}
int main()
{
    int a,b;
    scanf("%d%d",&a,&b);
    printf("Before swapping:%d %d\n",a,b);
    swap(&a,&b);
    printf("After swapping:%d %d",a,b);
return 0;
}
```

PROBLEMS OUTPUT DEBUG CONSOLE

TERMINAL

```
4 6
Before swapping:4 6
After swapping:6 4
D:\Documents_D_Drive\~NIT study\Programs\Assignment_5>
```

2. Write a program with a function to find the power of numbers.

```c
#include<stdio.h>
int power(int a,int b){
    int ans=1;
    while(b--) ans*=a;
    return ans;
}
int main()
{
    int a,b,output;
    scanf("%d%d",&a,&b);
    output=power(a,b);
    printf("%d^%d=%d",a,b,output);
    return 0;
}
```

```
PROBLEMS  OUTPUT  DEBUG CONSOLE
TERMINAL                                  CODE
T study\Programs\Assignment_5\"q_3
2 5
2^5=32
D:\Documents_D_Drive\~NIT study\Programs\Assignment_5>
```

4. Write a program with a function to find the sum of the first 50 natural numbers. The return type must be void and the result is expected to be printed in the main function.

```c
#include<stdio.h>
void sum_50(int *ans){
    for(int i=1;i<=50;i++) *ans+=i;
}
int main()
{
    int output=0;
    sum_50(&output);
    printf("%d",output);
return 0;
}
```

PROBLEMS OUTPUT DEBUG CONSOLE

TERMINAL

```
t_5\" && gcc q_4.c -o q_4 && "d:\Documents_D_Drive\~NI
T study\Programs\Assignment_5\"q_4
1275
D:\Documents_D_Drive\~NIT study\Programs\Assignment_5>
```