

# Green University of Bangladesh

## Department of Computer Science and Engineering (CSE)

Faculty of Sciences and Engineering  
Semester: (Summer, Year:2022), B.Sc. in CSE (Day)

Course Title: Structured programming  
Section: CSE 104

### Student Details

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Lab Date : 08/24/2022  
Submission Date : 08/15/2022  
Course Teacher's Name : Fatema Akter

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### Remarks

Marks: .....

Signature:.....

Comments:.....

Date:.....

.Write a program in C to find the maximum and minimum element in an array using pointer.

```
#include <stdio.h>

#define SIZE 50

int main(){

    int array[S]; int i, max,
    min, s, p1, p2;

    printf("Enter size of the array: ");
    scanf("%d", &s);

    printf("Enter elements in the array: ");
    for(i=0; i<s; i++){
        scanf("%d", &array[i]);
    }

    max = array[0];
    min = array[0];

    for(i=1; i<s; i++){
        if(array[i] > max){
            max = array[i];
            p1 = i + 1;
        } if(array[i] < min){
            min = array[i];
            p2 = i + 1;
        }
    }

    printf("Maximum element = %d is at position %d\n", max, p1);
    printf("Minimum element = %d is at position %d\n", min, p2);
    return 0;
}
```

## OUTPUT

```
Enter size of the array: 5
Enter elements in the array: 1
2
4
5
3
Maximum element = 5 is at position 4
Minimum element = 1 is at position 0
```

2. Write a C program to convert Decimal to Binary number system pointer.

Soln.

```
#include<stdio.h>
#include<conio.h>
void main()
{
int x,y,*p_x,*p_y,temp; printf("Enter
the value of x and y:");
scanf("%d%d",&x,&y);

printf("Before swaping x=%d\n y=%d",x,y);
p_x=x;
p_y=y;
temp=*p_y;
*p_y=*p_x;
*p_x=temp;
printf("After swaping x=%d\n y=%d",x,y);
return 0;
}
```

```
Enter the value of x and y:2 3
Before swaping x=2
Segmentation fault
```

3. Write a C program to concatenate two strings using pointers.

Soln.

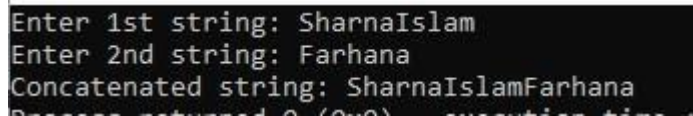
```
#include <stdio.h>
#define MAX_SIZE 100

int main()
{
    char str1[MAX_SIZE], str2[MAX_SIZE];
    char * s1 = str1;
    char * s2 = str2;

    // Getting String as Input
    printf("Enter 1st string: "); gets(str1);
    printf("Enter 2nd string: ");
    gets(str2); while(*(++s1));
    while(*(s1++) = *(s2++));

    printf("Concatenated string: %s", str1);
    return 0;
}
```

OUTPUT



Enter 1st string: SharnaIslam  
Enter 2nd string: Farhana  
Concatenated string: SharnaIslamFarhana  
Process returned 0 (0x0) - execution time

4. Write a C program to add two matrix using pointers. Soln.

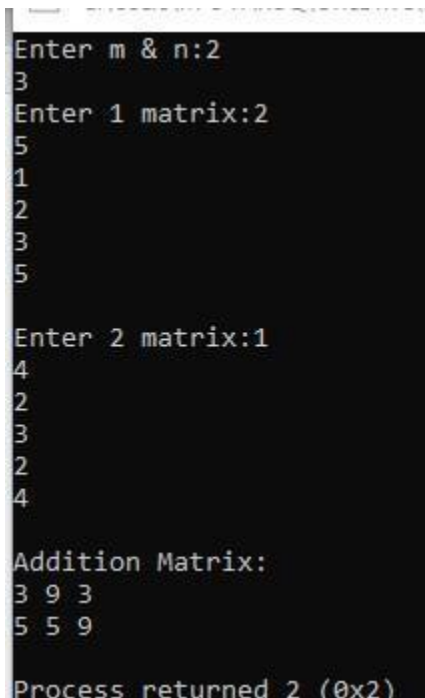
```
#include<stdio.h>
void main()
{ int
a[5][5],b[5][5],c[5][5],i,j,m,n;
printf("Enter m & n:");
scanf("%d %d",&m,&n);
printf("Enter 1 matrix:");
for(i=0;i<m;i++)
{
for(j=0;j<n;j++)
{
scanf("%d",(*(a+i)+j));
```

```

}
}
printf("\nEnter 2 matrix:");
for(i=0;i<m;i++)
{
for(j=0;j<n;j++)
{
scanf("%d",&*(b+i+j));
}
}
printf("\nAddition Matrix:\n");
for(i=0;i<m;i++) {
for(j=0;j<n;j++)
{
*(c+i+j)=*(a+i+j)+ *(b+i+j);
printf("%d ",*(c+i+j));
} printf("\n"); }
}

```

#### OUTPUT:



```

Enter m & n:2
3
Enter 1 matrix:2
5
1
2
3
5

Enter 2 matrix:1
4
2
3
2
4

Addition Matrix:
3 9 3
5 5 9

Process returned 2 (0x2)

```