ASSIGNEMENT
Submitted
By

Aneesh Sangran
2023A7R007
SEMISTER 01
Department – CSE (Cyber Security)

Model Institute Of Engineering & Technology
(Autonomous)
(Permanently Affiliated to the University of Jammu,
Accredited by NAAC with “A” Grade)
Jammu, India

2024

Q1:- Write the C program for check the given string is in password validation.

Ans –

```
#include <stdio.h>
#include <string.h>
#include <ctype.h>

int isPasswordValid(char *password)
{
    int length = strlen(password);

    if (length < 8)
    {
        return 0;
    }

    int hasUppercase = 0;
    for (int i = 0; i < length; i++)
    {
        if (isupper(password[i]))
        {
            hasUppercase = 1;
            break;
        }
```

```
}

if (!hasUppercase)
{
    return 0;
}

int hasLowercase = 0;
for (int i = 0; i < length; i++)
{
    if (islower(password[i]))
    {
        hasLowercase = 1;
        break;
    }
}

if (!hasLowercase)
{
    return 0;
}

int hasDigit = 0;
for (int i = 0; i < length; i++)
```

```
    {
        if (isdigit(password[i]))
        {
            hasDigit = 1;
            break;
        }
    }

    if (!hasDigit)
    {
        return 0;
    }

    return 1;
}

int main()
{
    char password[50];

    printf("Enter the password: ");
    scanf("%s", password);

    if (isPasswordValid(password))
```

```
    {
        printf("Password is valid.\n");
    }
    else
    {
        printf("Password is not valid.\n");
    }

    return 0;
}
```

```
PS D:\College Program\Assignement> gcc assignement03.c
PS D:\College Program\Assignement> .\a.exe
Enter the password: Aneesh
Password is not valid.
PS D:\College Program\Assignement>
```

Q2:- Write a C program to find the maximum and minimum element in an array.

Ans –

```
#include <stdio.h>


void findMinMax(int arr[], int size, int *max, int *min)
{
```

```
    *max = *min = arr[0];

    for (int i = 1; i < size; ++i)
    {
        if (arr[i] > *max)
        {
            *max = arr[i];
        }
        else if (arr[i] < *min)
        {
            *min = arr[i];
        }
    }
}

int main()
{
    int size;

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

    int arr[size];
```

```
    printf("Enter %d elements of the array:\n", size);
    for (int i = 0; i < size; ++i)
    {
        scanf("%d", &arr[i]);
    }

    int max, min;

    findMinMax(arr, size, &max, &min);

    printf("Maximum element: %d\n", max);
    printf("Minimum element: %d\n", min);

    return 0;
}
```

```
PS D:\College Program\Assignement> gcc assignement04.c
PS D:\College Program\Assignement> .\a.exe
Enter the size of the array: 5
Enter 5 elements of the array:
21
23
43
54
67
Maximum element: 67
Minimum element: 21
PS D:\College Program\Assignement>
```