

## EXPERIMENT 5

Write a shell script and C program to perform the following string operations: a) To extract a substring from a given string.

Shell Script:

```
GNU nano 4.8
str="Welcome to MIET"
echo "Total characters in string: ${#str}"
echo "EXTRACTION list of 10 characters of string"
substr="${str:0:10}"
echo "$substr"
echo "EXTRACTING from specific character onwards"
substr="${str:11}"
echo "$substr"
echo ":EXTRACTING characters between given range"
substr="${str:11:6}"
echo "$substr"
echo "EXTRACTING characters by giving range in negative"
substr="${str:-1}"
echo "$substr"
```

## OUTPUT

```
harpreet@harpreet-VirtualBox:~$ nano fi.sh
harpreet@harpreet-VirtualBox:~$ chmod +x fi.sh
harpreet@harpreet-VirtualBox:~$ ./fi.sh
Total characters in string: 15
EXTRACTION list of 10 characters of string
Welcome to
EXTRACTING from specific character onwards
MIET
:EXTRACTING characters between given range
MIET
EXTRACTING characters by giving range in negative
Welcome to MIET
harpreet@harpreet-VirtualBox:~$
```

## C PROGRAM

```
#include<stdio.h>
int main()
{
    char str[50]="WELCOME TO MIET";
    printf("Total characters in string: 16");
    printf("\n\n");
    printf("Extracting list of 10 characters of string:-");

    {
        for(int i=0;i<=10;i++)
        {
            if(str[i]!=' ')
            {
                printf("%c", str[i]);
            }
        }
    }
    printf("\n\n");
    printf("Extracting from specific character onwards:-");
    {
        for (int i=10;i<=15;i++)
        {
            if (str[i]!=' ')
            {
                printf("%c", str[i]);
            }
        }
    }
    printf("\n\n");
    printf("Extracting charcters by giving range in negative:-");
    {
        for(int i=-1;i<=16;i++)
        {
```

```
            if (str[i]!=' ')
            {
                printf("%c",str[i]);
            }
        }
    }
    printf("\n\n");
    return 0;
}
```

OUTPUT

welcome to MIET

```
harpreet@harpreet-VirtualBox:~$ nano prog.c
```

```
harpreet@harpreet-VirtualBox:~$ gcc prog.c
```

```
harpreet@harpreet-VirtualBox:~$ ./a.out
```

Total characters in string: 16

Extracting list of 10 characters of string:-WELCOMETO

Extracting from specific character onwards:-MIET

Extracting charcters by giving range in negative:-❖WELCOMETOMIET

```
harpreet@harpreet-VirtualBox:~$ █
```