Practical No. 04

Program:

```c
// Write the C program to Find Element at required Location.

#include <stdio.h>

char elementAt(char ch[], int pos)
{
    return ch[pos];
}

int main()
{
    int pos;
    printf("Enter The position of element in an array : ");
    scanf("%d", &pos);
    pos--;
    char ch[] = "sggsiet";
    printf("'%c' element at given position", elementAt(ch, pos));
    return 0;
}
```

Output :

```
PS E:\SGGS\2ND YEAR\DM> cd "e:\SGGS\2ND YEAR\DM\" ; if (
Enter The position of element in an array : 5
'i' element at given position
PS E:\SGGS\2ND YEAR\DM>
```

Program:

```c
// Write the C program to Find common elements in two array.

#include <stdio.h>

void intersection(char ch1[], char ch2[], int s1, int s2)
{
    for (int i = 0; i < s1; i++)
    {
        for (int j = 0; j < s2; j++)
        {
            if (ch1[i] == ch2[j])
            {
                printf("%c\t", ch1[i]);
                break;
            }
        }
    }
}

int main()
{
    char ch1[] = {'s', 'g', 'g', 's', 'i', 'e', 't'};
    char ch2[] = {'m', 'e', 's', 's', 'a', 'g', 'e'};
    int s1 = sizeof(ch1) / sizeof(ch1[0]);
    int s2 = sizeof(ch2) / sizeof(ch2[0]);
    printf("Common Characters : ");
    intersection(ch1, ch2, s1, s2);
    return 0;
}
```

Output :

```
PS E:\SGGS\2ND YEAR\DM> cd "e:\SGGS\2ND YEAR\DM\" ; if
Common Characters : s   g       g       s       e
PS E:\SGGS\2ND YEAR\DM>
```

Program:

```c
// Write the C program to Find common element in Dynamic array.

#include <stdio.h>
#include <string.h>
void intersection(char ch1[], char ch2[], int s1, int s2)
{
    for (int i = 0; i < s1; i++)
    {
        for (int j = 0; j < s2; j++)
        {
            if (ch1[i] == ch2[j])
            {
                printf("%c\t", ch1[i]);
                break;
            }
        }
    }
}

int main()
{
    char ch1[100], ch2[100];
    printf("Enter the String 1 : ");
    scanf("%s", &ch1);
    printf("Enter the String 2 : ");
    scanf("%s", &ch2);
    int s1 = strlen(ch1);
    int s2 = strlen(ch2);
    printf("Common Characters : ");
    intersection(ch1, ch2, s1, s2);
    return 0;
}
```

Output :

```
 PS E:\SGGS\2ND YEAR\DM> cd "e:\SGGS\2ND YEAR\DM\
 Enter the String 1 : ABHANG
 Enter the String 2 : PATURKAR
 Common Characters : A    A
 PS E:\SGGS\2ND YEAR\DM> ▮
```