Appendix C
Lab Programs

Program - 1

Develop a Program in C for the following:
  a. Declare a calendar as an array of 7 elements (A dynamically Created array) to represent 7 days of a week. Each Element of the array is a structure having three fields. The first field is the name of the Day (A dynamically allocated String), The second field is the date of the Day (A integer), the third field is the description of the activity for a particular day (A dynamically allocated String).
  b. Write functions create(), read() and display(); to create the calendar, to read the data from the keyboard and to print weeks activity details report on screen.

```c
#include <stdio.h>
#include <string.h>
#include <stdlib.h>

struct calendar
{
    char *dayName;
    int date;
    char *description;
} week[7];

void create()
{
    int i;
    for (i = 0; i < 7; i++)
    {
        week[i].dayName = (char *)malloc(20 * sizeof(char));
```

```
            week[i].description = (char *)malloc(50 * sizeof
(char));
        }
}

void read()
{
    int i;
    for (i = 0; i < 7; i++)
    {
        printf("\n Enter the name of the day:");
        scanf("%s", week[i].dayName);
        printf("\n Enter the date of the day:");
        scanf("%d", &week[i].date);
        printf("\n Enter the description of the activity

            of the day:");
        scanf("%s", week[i].description);
    }
}

void display()
{
    int i;
    for (i = 0; i < 7; i++)
    {
        printf("\n Name of the day: %s", week[i].dayName
);
        printf("\n Date of the day: %d", week[i].date);
        printf("\n Activity of the day: %s", week[i].des
cription);
    }
}

void main()
{
    create();
    read();
    display();
}
```

```
Output:
 Enter the name of the day: mon
```

```
 Enter the date of the day:01
 Enter  the  description  of  the  activity  of  the  day:
dancing

 Enter the name of the day: tue
 Enter the date of the day:02
 Enter  the  description  of  the  activity  of  the  day:
playing

 Enter the name of the day: wed
 Enter the date of the day:03
 Enter  the  description  of  the  activity  of  the  day:
singing

 Enter the name of the day: thu
 Enter the date of the day:04
 Enter  the  description  of  the  activity  of  the
day:homework

 Enter the name of the day: fri
 Enter the date of the day:05
 Enter  the  description  of  the  activity  of  the  day:
drawing

 Enter the name of the day: sat
 Enter the date of the day:06
 Enter  the  description  of  the  activity  of  the
day:painting

 Enter the name of the day: sun
 Enter the date of the day:07
 Enter  the  description  of  the  activity  of  the  day:
funday
```

Link to execute the program:
https://onlinegdb.com/dLJqQgc7H