```c
/*
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.
*/


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

#define NO_OF_DAYS 7

typedef struct
{
    char *name_of_day;
    int date_of_day;
    char *activity_descr;
} CALENDER;

void create_calender(CALENDER a[], int i, char name
[], int date, char activity[])
{
    a[i].name_of_day = (char *) malloc(strlen(name)
    + 1);
```

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        strcpy(a[i].name_of_day, name);
        a[i].date_of_day = date;
        a[i].activity_descr = (char *) malloc(strlen(
        activity) + 1);
        strcpy(a[i].activity_descr, activity);
}

void read_calender(CALENDER a[])
{
    int i, date;
    char name[10], activity[10];

    for (i = 0; i < NO_OF_DAYS; i++)
    {
        scanf("%s", name);
        scanf("%d", &date);
        scanf("%s", activity);

        create_calender(a, i, name, date, activity);
    }
}

void print_weeks_activity(CALENDER a[])
{
    int i;

    printf("Weeks activity\n");

    for (i = 0; i < NO_OF_DAYS; i++)
    {
        printf("%-10s : %s\n", a[i].name_of_day, a[i
        ].activity_descr);
    }
}

void main()
{
    CALENDER a[NO_OF_DAYS];
```

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    printf("Name      Date      Activity\n");

    read_calender(a);

    print_weeks_activity(a);
}
```

```
/* OUTPUT

Name            Date            Activity
Monday          1               Working
Tuesday         2               Gym
Wednesday       3               Studying
Thursday        4               Meeting
Friday          5               Shooping
Saturday        6               Cleaning
Sunday          7               Relaxing


Weeks activity
Monday          : Working
Tuesday         : Gym
Wednesday       : Studying
Thursday        : Meeting
Friday          : Shooping
Saturday        : Cleaning
Sunday          : Relaxing


...Program finished with exit code 0
Press ENTER to exit console.
*/
```