DS Assignment 1

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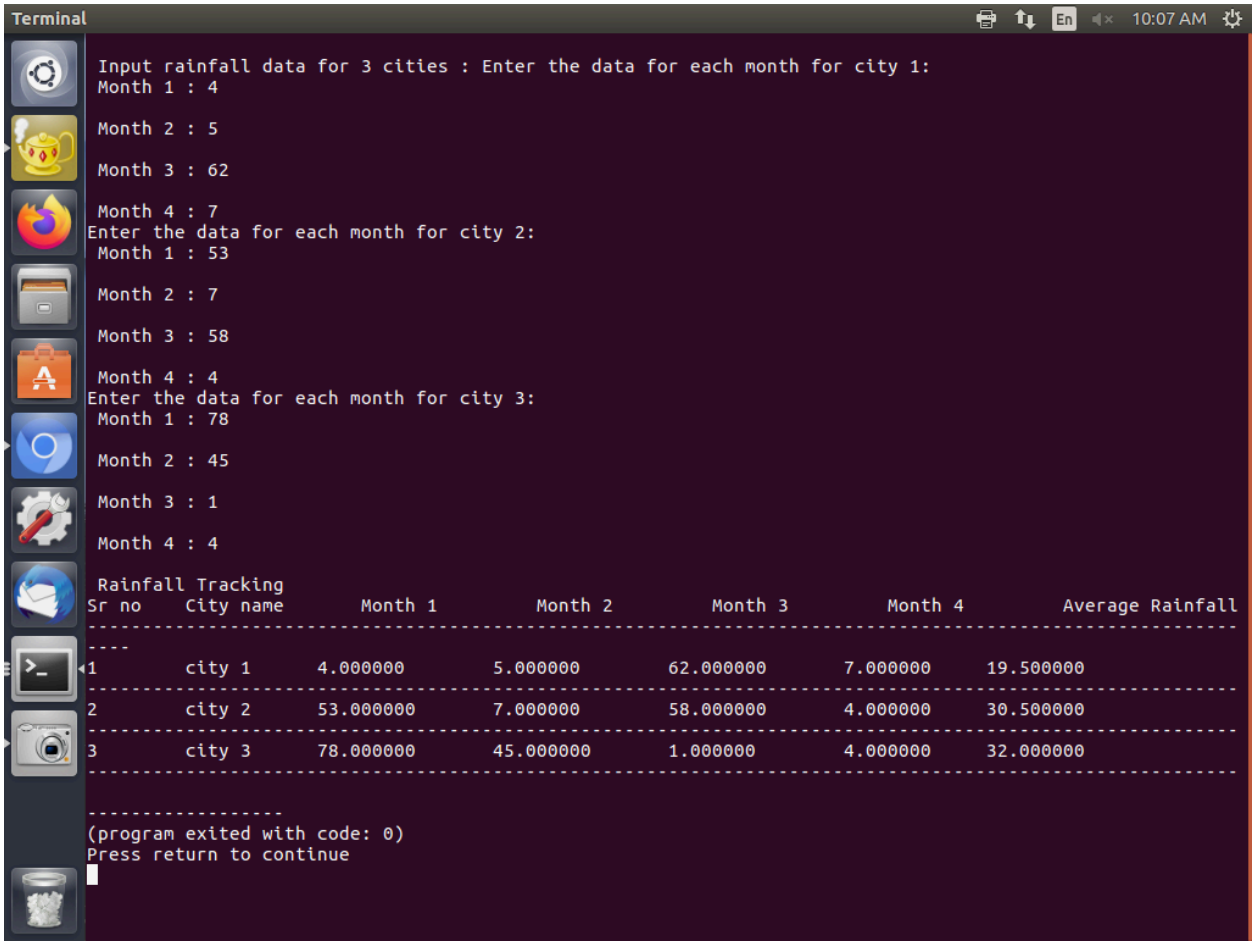
```
/* write a program to track rainfall for 3 cities over 4 months.
 * using a 2d array we can store the data , calculate the average rainfall for
 * each city  , display the rainfall data in a tabular format.
 */

 #include<stdio.h>
 void main()
 {
        float rainfall[3][4];
        float total=0.0 ;
        float avg = 0.0;

        printf("\n Input rainfall data for 3 cities : ");
        for (int c=0;c<3;c++)
        {
                printf("Enter the data for each month for city %d:",c+1);
                for (int m=0;m<4;m++)
                {
                        printf("\n Month %d : ",m+1);
                        scanf("%f",&rainfall [c][m]);

                }

        }
        printf("\n Rainfall Tracking");
        printf("\nSr no \t City name \t Month 1 \t Month 2 \t Month 3 \t Month 4 \t Average
Rainfall");

printf("\n-----------------------------------------------------------------------------------------------------------");
        for(int c=0 ; c<3;c++)
        {
                printf("\n%d",c+1);
                printf("\t city %d",c+1);
                total = 0.0;

                for(int m=0;m<4;m++)
```

```
                {
                        printf("\t       %f",rainfall[c][m]);
                        total += rainfall[c][m];
                }
                avg =total/4 ;
                printf("\t  %f", avg);

printf("\n----------------------------------------------------------------------------------------------------------");
        }


}
```



/***Temperature Tracker:**

Write a program for Tracking daily temperatures of 3 cities for a week . The program calculates the average temperature for each day and for the week.

*/

```
#include <iostream>
using namespace std;
int main() {
float arr[3][7];
for(int i=0;i<3;i++){
cout<<"city"<<i+1<<"\n";
for(int j=0;j<7;j++){
cout<<"enter temp "<<j+1<<":";
cin>>arr[i][j];
}
cout<<"\n";
}
cout<<"Temperature Tracker B24CE1063 \n";
cout<<"cities day1 day2 day3 day4 day5 day6 day7 average \n";
for(int i=0;i<3;i++){
cout<<"--------------------------------------------------------------------------\n";
cout<<"city"<<i+1;
float avg =0;
for(int j=0;j<7;j++){
cout<<" "<<arr[i][j];
avg+=arr[i][j];
}
cout<<" "<<avg/7;
cout<<"\n";
}
return 0;
}
```

Output:-

```
city1
enter temp 1:12
enter temp 2:13
enter temp 3:14
enter temp 4:15
enter temp 5:16
enter temp 6:17
enter temp 7:18

city2
enter temp 1:13
enter temp 2:15
enter temp 3:17
enter temp 4:19
enter temp 5:20
enter temp 6:21
enter temp 7:23

city3
enter temp 1:24
enter temp 2:27
enter temp 3:28
enter temp 4:26
enter temp 5:25
enter temp 6:26
enter temp 7:23

Temperature Tracker B24CE1063
cities      day1      day2      day3      day4      day5      day6      day7   average
-------------------------------------------------------------------------------------
city1       12        13        14        15        16        17        18        15
-------------------------------------------------------------------------------------
city2       13        15        17        19        20        21        23        18.2857
-------------------------------------------------------------------------------------
city3       24        27        28        26        25        26        23        25.5714
```