

## Assignment No: 01

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**Class:** SY-1

**Batch:** C

**PRN:** B25CE2014

**Title:** Rainfall Tracking:

Write a program to track rainfall data for 3 cities over 4 months. Using a 2D array, we can store the data, calculate the average rainfall for each city, and display the rainfall data in a tabular format.

**Program:**

```
#include <iostream>
using namespace std;
int main(){
    int cities=3;
    int months=4;
    int Rainfall [cities][months];

    cout<<"Enter temperature data for 3 cities for 4 months:\n";
    for (int i =0;i<3;i++){
        cout<<"City"<<i+1<<"\n";
        for(int j=0;j<4;j++){
            cout<<"months"<<j+1<<": ";
            cin>>Rainfall[i][j];
        }
    }
    cout<<"\n Rainfall data table";
    cout<<"City\nmonths\t";
    for (int j=0;j<4;j++){
        cout<<"Month"<<j+1<<"\t";
    }
    cout<<"Average\n";
    for(int i=0;i<3;i++){
        int sum=0;
        cout<<"cities"<<i+1<<"\t";
        for(int j=0;j<4;j++){
            cout<<Rainfall[i][j]<<"\t";
            sum+=Rainfall[i][j];
        }
    }
```

```

        int average=sum/months;
        cout<<average<<endl;
    }
    return 0;
}

```

### Output:

The terminal window displays the following output:

```

Enter temprature data for 3 cities for 4 months:
City1
months1:12
months2:14
months3:18
months4:9
City2
months1:10
months2:14
months3:16
months4:18
City3
months1:9
months2:8
months3:15
months4:20

Rainfall data tableCity
months  Month1  Month2  Month3  Month4  Average
cities1 12      14      18      9       13
cities2 10      14      16      18      14
cities3 9       8       15      20      13

-----
(program exited with code: 0)
Press return to continue

```

**Title:** 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.

**Program:**

```
#include <iostream>
using namespace std;
int main(){
    int cities=3;
    int days=7;
    int temperature [cities][days];

    cout<<"Enter temperature data for 3 cities for 4 months:\n";
    for (int i =0;i<3;i++){
        cout<<"City"<<i+1<<"\n";
        for(int j=0;j<7;j++){
            cout<<"day"<<j+1<<": ";
            cin>>temperature[i][j];
        }
    }
    cout<<"\n Temperature data table";
    cout<<"City\ndays\t";
    for (int j=0;j< 7;j++){
        cout<<"Day"<<j+1<<"\t";
    }
    cout<<"Average\n";
    for(int i=0;i<3;i++){
        int sum=0;
        cout<<"cities"<<i+1<<"\t";
        for(int j=0;j<7;j++){
            cout<<temperature[i][j]<<"\t";
            sum+=temperature[i][j];
        }
        int average=sum/days;
        cout<<average<<endl;
    }
    return 0;
}
```

## Output:

```
Terminal
Enter temprature data for 3 cities for 4 months:
City1
day1:10
day2:9
day3:8
day4:10
day5:11
day6:12
day7:10
City2
day1:9
day2:8
day3:10
day4:9
day5:8
day6:7
day7:6
City3
day1:10
day2:9
day3:11
day4:10
day5:12
day6:12
day7:10

Temperature data tableCity
days   Day1   Day2   Day3   Day4   Day5   Day6   Day7   Average
cities1 10     9      8      10     11     12     10     10
cities2 9      8      10     9      8      7      6      8
cities3 10     9      11     10     12     12     10     10

-----
(program exited with code: 0)
Press return to continue
```