CHAPTER 1

INTRODUCTION

The project entitled "cricket score card system" which is utilized by the user with an update of the cricket even when the user is not watching the match. Each and every match details such as the description about the team and team members will be stored in the repository system in the form of database.

This project aims to make a cricket score board that will update the scores of a match Cricket being a special part of the lives of many people, there will be many takers for such a system and the ability to follow the match without seeing the video will make it interesting for many. A user who is unable to watch the event like someone who is busy with their work.

Adding teams, matches, players and score of each player is done randomly by code.

User can just put their choice of choosing head or tail, and who wins toss can choose bat or ball.

User have to input overs then the score is generated randomly for every ball, and after each over the cricket scoresheet is generated by mentioning the score of players who is batting.

In this project a coin will be tossed. Team can choose either head or tail. Then all the activities of players such as bowling and batting are done. The team which is coming to bat should enter the number of overs. Then the match gets started, with respective overs mentioned above. The team which has choosen batting will play first then further bowling team will play the match. All the activities are recorded such as players score, runrate per over, number of boundries, team score after each over and number of balls played by each player. Then Scoresheet is displayed after each over. Then finally innings scoresheet is displayed after each innings. Then the team which has won the match will be displayed.

1.1 VISION, MISSION AND OBJECTIVES

VISION: To design and develop a cricket scorecard system project in C++.

MISSION: To ensure that the live cricket match score is to be showed without any delay.

OBJECTIVES:

- User have to choose the toss head or tail.
- Who wins toss have to choose bat or ball.
- Then user have to input overs.
- Then the cricket score card system is generated automatically.

1.2 PROBLEM STATEMENT

To design and develop a cricket scorecard system project in C++.

1.3 EXISTING SYSTEM

The existing system is used software saves all the team and team members games format system manually. Manage the activities like manual decision making, processing, announcement, scoring data and handling players & team information are very tough process. Moreover which will make lot of confusions and risks to make further process. This leads to wrong decision making in the event. The existing system is to manually alerts the system to customer and maintains the player details, and status are in records. It will be more difficult to maintain and gathering information about specific records. It will take more time.

As there is lot of data work involved, skilled staffs are used. So it becomes dependable for the management on these people. The reports are not verified to the highest extend to avoid any miscommunication and misfortune of the center.

The existing system of watching cricket is generally on the television. Most matches are not scheduled on holidays and this will allow people access to the match regardless of their location. Some sites do exist that display text commentary but they are very impersonal.

1.4 PROPOSED SYSTEM

The proposed system "Cricket Score Card System" is utilized by the particular player, can be viewed by a single click on their name. Main objective of the project is to develop the software for the event requirement. In this project used to maintain the details in database so easily retrieve the details from the database. This system also having the details of player and match are maintained in the repository management system.

The reports are useful to maintain the match and run rate system and complete the work as simple and as quick. Report is generated and saved in non-editable format. The proposed system commentary will be available post the match as well for review. Advantages of the Proposed System

- Easily maintain all the player details.
- Report generation is easier.
- Easy to maintain score details.

CHAPTER 2

SYSTEM ANALYSIS AND REQUIREMENTS

2.1 REQUIREMENT SPECIFICATIONS

2.1.1 HARDWARE REQUIREMENTS

- PC
- PROCESSOR: Pentium IV/Dual core/Core duo processors
- RAM: 2GB/4GB/8GB and above
- HARD DISK: 1TB and above

2.1.2 SOFTWARE REQUIREMENTS

- OPERATING SYSTEM: WINDOWS XP/7/8/10 or LINUX
- SOFTWARE: VISUAL STUDIO CODE, DEV C++
- PROGRAMMING LANGUAGE: C++

2.2 FUNCTIONAL REQUIREMENTS

- TOSS
- Team players details
- Cricket match

2.3 NON FUNCTIONAL REQUIREMENTS

PERFORMANCE REQUIREMENTS: The database shall be able to accommodate a minimum of 10,000 records of students. The software shall support use of multiple users at a time. There are no other specific performance requirements that will affect development.

SAFETY REQUIREMENTS: The database may get crashed at any certain time due to virus or operating system failure. Therefore, it is required to take the database backup.

SECURITY REQIREMENTS: Some of the factors that are identified to protect the software from accidental or malicious access, use, modification, destruction, or disclosure are described below. Keep specific log or history data sets Assign certain functions to

different modules Restrict communications between some areas of the program Check data integrity for critical variables Later version of the software will incorporate encryption techniques in the user/license authentication process. Communication needs to be restricted when the application is validating the user or license. (i.e., using https).

2.4 DOMAIN REQIREMENTS

TOSS: In this module a coin will be tossed. Team can choose either head or tail. The team which has won the toss can choose either batting or bowling.

TEAM PLAYERS DETAILS: In this module the details of players with respect to their teams are displayed.

CRICKET MATCH: This is the main module of our project, in which, all the activities of players such as bowling and batting are done. The team which is coming to bat should enter the number of overs. Then the match gets started, with respective overs mentioned above. The team which has choosen batting will play first then further bowling team will play the match. All the activities are recorded such as players score, runrate per over, number of boundries, team score after each over and number of balls played by each player. Then Scoresheet is displayed after each over. Then finally innings scoresheet is displayed after each innings. Then the team which has won the match will be displayed.

CHAPTER 3

SYSTEM ARCHITECTURE DESCRIPTION

3.1 SYSTEM ARCHITECTURE

System Architecture is a theoretical blueprint for the construction and performance of a system. It consists of customer requirements, conventions, rules, and standards employed in a framework.

DATA FLOW DIAGRAM

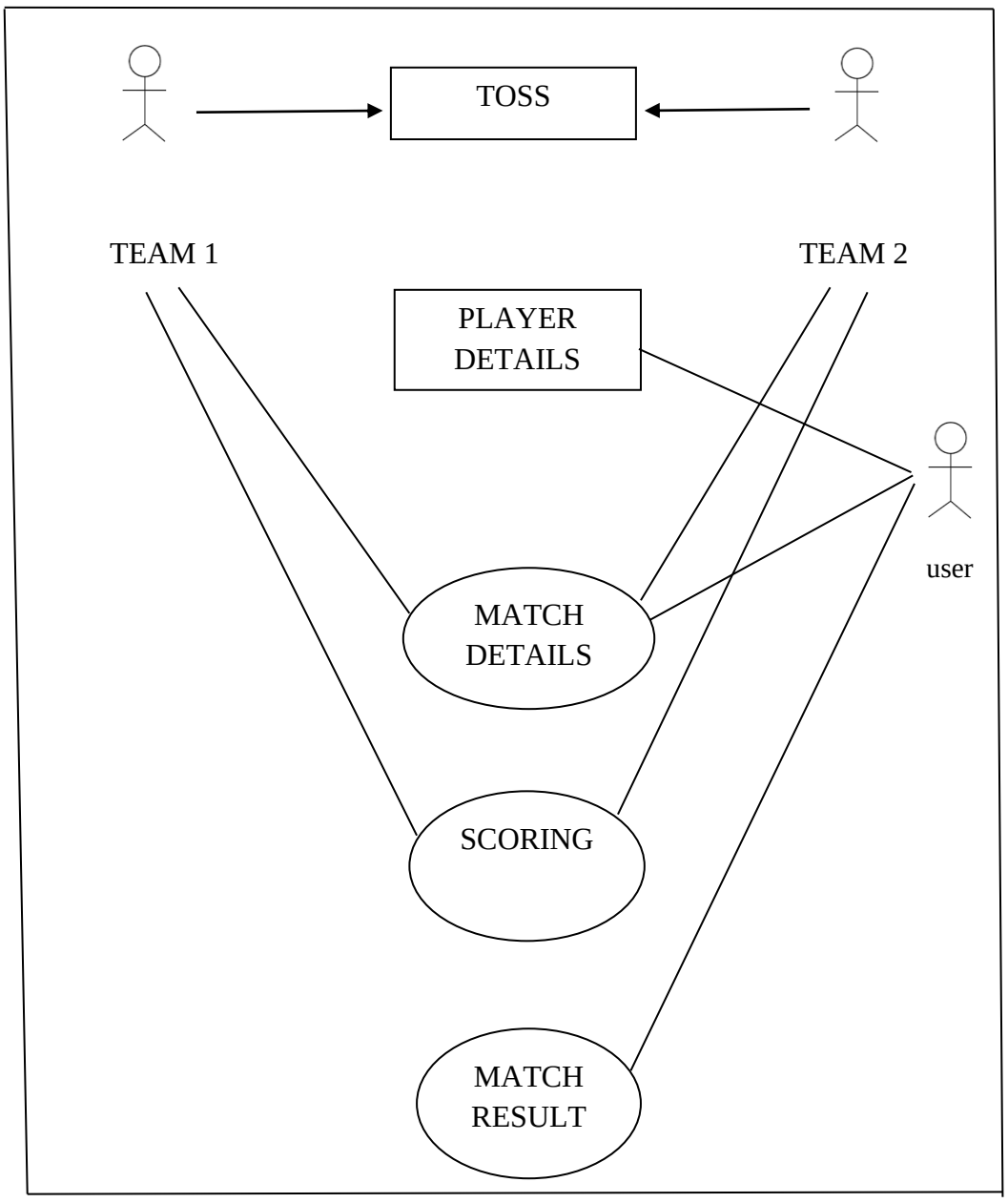

Fig: Data flow diagram

USE CASE DIAGRAM

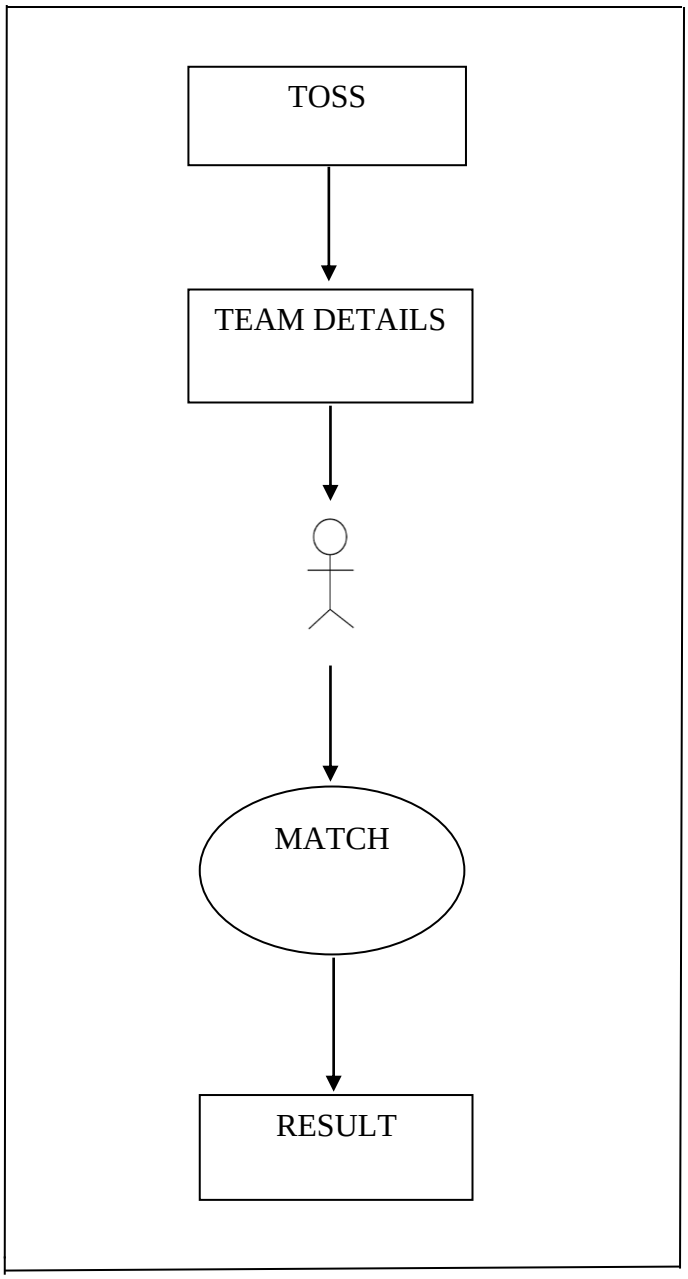

Fig: Use Case diagram

CHAPTER 4

IMPLEMENTATION

4.1 OVERVIEW OF MODULES / COMPONENTS

The proposed App has following modules. The Table Below gives brief description about modules.

Toss	In this module a coin will be tossed. Team can choose either head or tail. The team which has won the toss can choose either batting or bowling.
Team players details	In this module the details of players with respect to their teams are displayed.
Cricket match	This is the main module of our project, in which, all the activities of players such as bowling and batting are done. The team which is coming to bat should enter the number of overs. Then the match gets started, with respective overs mentioned above. The team which has choosen batting will play first then further bowling team will play the match. All the activities are recorded such as players score, runrate per over, number of boundries, team score after each over and number of balls played by each player. Then Scoresheet is displayed after each over. Then finally innings scoresheet is displayed after each innings. Then the team which has won the match will be displayed.

Table 4.1: Overview of modules

4.2 SOURCE CODE

```
#include <iostream>
#include <conio.h>
#include <stdlib.h>
#include <time.h>
#include <iomanip>
#include <string.h>
using namespace std;
int player1[12] = {0}, p1 = 0, runs1 = 0, ball1 = 0, balls1[12] = {0};
int player2[12] = {0}, p2 = 0, runs2 = 0, ball2 = 0, balls2[12] = {0};
int four = 0, six = 0, t_four = 0, t_six = 0;
// string team2[12];
string player_ind[12] = {"Dhawan", "Rohit", "Virat kholi", "Ayer", "Pant", "Hardik pandya", "Krunal pandya", "B kumar", "Bumra", "Ishanth sharma", "Shami"};
string player_pak[12] = {"Babar Azam", "Md Rizwan", "Azam Khan", "Afridi", "Md Hafeez", "Fakhar Zaman", "Md Hasnain", "Sohaib Maqsood", "Shadab Khan", "Wasim", "Haris Rauf"};
string player_ind_copy[12], player_pak_copy[12];
void star();
int teamplayers(int res, int value)
{
    cout << "\n\n\n";
    star();
    cout << "\t\t\t\t\t\t Team Details" << endl;
    star();
    if (res == 1)
    {
        cout << "\t\t\t\t (toss)Team 1 ";
        if (value == 1)
            cout << "(Batting)";
        else
            cout << "(Bowling)";
        cout << "\t\t\t\t Team 2 \n";
    }
```

```
    else if (res == 2)
    {
        cout << "\t\t\t\t\t Team 1 "
             << "\t\t\t\t(toss)Team 2 ";
        if (value == 1)
            cout << "(Batting)\n";
        else
            cout << "(Bowling)\n";
    }
    else
    {
        cout << "\n\nInvalid ";
        getch();
    }
    star();
    cout << "\n";
    for (int i = 0; i < 11; i++)
    {
        cout << "\t\t\t " << setw(18) << player_ind[i] << "\t\t\t\t\t" << player_pak[i] <<
"\n";
    }
    cout << "\n";
    star();
    getch();

    return 0;
}
int players_ind()
{
    int bowlers;
    srand(time(NULL));
    bowlers = rand() % 11;
    cout << "  is bowled by  " << player_ind[bowlers];
    return 0;
```

```
}
int players_pak()
{
   int bowlers;
   srand(time(NULL));
   bowlers = rand() % 11;
   cout << " is bowled by " << player_pak[bowlers];
   return 0;
}
int toss()
{
   char ch;
   int coin, won, choice, Toss;
invalid1:
   cout << "\n\n\n";
   star();
   cout << "\t\t\t\t\t\t Toss \n";
   star();
   cout << "\n\t\t\t\t\t\t Team 1 can choose";
   cout << "\n\n\t\t\t\t\t\t Enter H for Head and T for Tail";
   cout << "\n\n\t\t\t\t\t\t Enter your choice : ";
   cin >> ch;
   cout << "\n";
   star();
   srand(time(NULL));
   coin = rand() % 2;
   if (ch == 'H' || ch == 'h')
   {
      if (coin == 0)
      {
         cout << "\t\t\t\t\t\tCoin has been tossed and its Head\n";
         star();
         getch();
         system("cls");
```

```
    cout << "\n\n\n";
    star();
    cout << "\t\t\t\t\t\t ****TEAM 1 WON THE TOSS****\n";
    star();
    Toss = 1;
invalid2:
    star();
    cout << "\t\t\t\t\t Enter 1 for batting or 2 for bowling = ";
    cin >> choice;
    star();
    if (choice == 1)
    {
        won = 1;
    }
    else if (choice == 2)
    {
        won = 2;
    }
    else
    {
        star();
        cout << "\t\t\t\t\t\t\tInvalid input\n";
        star();
        getch();
        goto invalid2;
    }
    getch();
    system("cls");
}
else
{
    cout << "\t\t\t\t\t\t Coin has been tossed and its Tail\n";
    star();
    getch();
```

```
        system("cls");
        cout << "\n\n\n";
        star();
        cout << "\t\t\t\t\t\t ****TEAM 2 WON THE TOSS****\n";
        star();
        Toss = 2;
    invalid3:
        star();
        cout << "\t\t\t\t\tEnter 1 for batting or 2 for bowling = ";
        cin >> choice;
        star();
        if (choice == 1)
        {
            won = 2;
        }
        else if (choice == 2)
        {
            won = 1;
        }
        else
        {
            star();
            cout << "\t\t\t\t\t\t\tInvalid input\n";
            star();
            getch();
            goto invalid3;
        }
        getch();
        system("cls");
    }
}
else if (ch == 'T' || ch == 't')
{
```

```
if (coin == 1)
{
   cout << "\t\t\t\t\t\tCoin has been tossed and its Tail\n";
   star();
   getch();
   system("cls");
   cout << "\n\n\n";
   star();
   cout << "\t\t\t\t\t\t ****TEAM 1 WON THE TOSS****\n";
   star();
   Toss = 1;
invalid4:
   star();
   cout << "\t\t\t\t\t Enter 1 for batting or 2 for bowling = ";
   cin >> choice;
   star();
   if (choice == 1)
   {
      won = 1;
   }
   else if (choice == 2)
   {
      won = 2;
   }
   else
   {
      star();
      cout << "\t\t\t\t\t\t\tInvalid input\n";
      star();
      getch();
      goto invalid4;
   }
   getch();
   system("cls");
```

```
}
else
{
   cout << "\t\t\t\t\t\t Coin has been tossed and its Head\n";
   star();
   getch();
   system("cls");
   cout << "\n\n\n";
   star();
   cout << "\t\t\t\t\t\t ****TEAM 2 WON THE TOSS****\n";
   star();
   Toss = 2;
invalid5:
   star();
   cout << "\t\t\t\t\t Enter 1 for batting or 2 for bowling = ";
   cin >> choice;
   star();
   if (choice == 1)
   {
      won = 2;
   }
   else if (choice == 2)
   {
      won = 1;
   }
   else
   {
      star();
      cout << "\t\t\t\t\t\t\tInvalid input\n";
      star();
      getch();
      goto invalid5;
   }
   getch();
```

```
            system("cls");
        }
    }
    else
    {
        star();
        cout << "\t\t\t\t\t\t\t INVALID CHOICE\n";
        star();
        getch();
        system("cls");
        goto invalid1;
    }
    teamplayers(Toss, choice);
    return won;
}
void star()
{
    std::cout << "\t\t\t";
    for (int i = 1; i < 81; i++)
    {
        std::cout << "*";
    }
    std::cout << endl;
}
int match(int res)
{
    for (int i = 0; i < 11; i++)
    {
        player_ind_copy[i] = player_ind[i];
        player_pak_copy[i] = player_pak[i];
    }
    system("cls");
    int f = 0, n, i, j, m = 6, k = 1, r = 1, total = 0, a, c = 1, z = 0, b, wickets = 10, w = 0, y =
0, x = 1, p;
```

```
    float runrate, runrate1, reqrunrate;
    int f1 = 0, i1, innings, j1, m1 = 6, k1 = 1, r1 = 1, total1 = 0, a1, c1 = 1, z1 = 0, b1,
wickets1 = 10, w1 = 0, y1 = 0, x1 = 1;
    // int play[12];
    char strike1 = '*';
    int id1 = 0, id2 = 1, id3;
    string final, temp, wic = "(out)";
    std::cout << endl
              << endl
              << endl
              << endl
              << endl;
    star();
    std::cout << "\t\t\t\t\t\tCRICKET SCORECARD MANAGEMENT SYSTEM\n";
    star();
over:
    cout << "\n\t\t\t\t\t\t Enter the number of overs = ";
    cin >> n;
    if (n > 0)
    {
        system("cls");
        star();
        cout << "\t\t\t\t\t\t TEAM " << res << "\n";
        star();
        for (i = 0; i < n; i++)
        {
            srand(time(NULL));
            star();
            cout << "\t\t\t\t\t\t Over  " << k;
            if (res == 1)
            {
                players_pak();
            }
            else
```

```
{
   players_ind();
}
cout << "\n";
star();
cout << "\t\t\t\t\t    NAME \t\tRUNS \t\t   OVERS \n";
four = 0;
six = 0;
for (j = 1; j <= m; j++)
{
   if (wickets == 0)
   {
      cout << "\n\n";
      star();
      cout << "\t\t\t\t\t\t FIRST INNINGS COMPLETED\n";
      star();
      goto jump;
      break;
   }
   getch();
add:
   a = rand() % 9;
   b = a;
   if (b == 5)
   {
      // cout << "\n"
      //      << "\t\t\t\t\t\t\t\t"
      //      << " " << i << "." << j << " = Wicket";
      f = 5;
      wickets--;
      w++;
      y++;
      ball1++;
      if (strike1 == '*')
```

```
            {
               balls1[id1] += ball1;
            }
            else
            {
               balls1[id2] += ball1;
            }
            ball1 = 0;
            if (strike1 == '*')
            {
               if (res == 1)
               {
                  cout << "\n\n\t\t\t " << setw(25) << player_ind[id1] << setw(20) <<
"\tWicket \t\t   " << i << "." << j;
                  temp = player_ind[id1];
                  final = temp + " " + wic;
                  player_ind[id1] = final;
               }
               else
               {
                  cout << "\n\n\t\t\t " << setw(25) << player_pak[id1] << setw(20) <<
"\tWicket \t\t   " << i << "." << j;
                  temp = player_pak[id1];
                  final = temp + " " + wic;
                  player_pak[id1] = final;
               }
               if (id1 < id2)
               {
                  id1 = id2 + 1;
               }
               else
               {
                  id1 = id1 + 1;
               }
```

```
            if (res == 1)
            {
               cout << "\n\n\t\t\t\t " << player_ind[id1] << " has come to bat";
            }
            else
            {
               cout << "\n\n\t\t\t\t " << player_pak[id1] << " has come to bat";
            }
         }
         else
         {
            if (res == 1)
            {
               cout << "\n\n\t\t\t " << setw(25) << player_ind[id2] << setw(20) <<
"\tWicket \t\t  " << i << "." << j;
               temp = player_ind[id2];
               final = temp + " " + wic;
               player_ind[id2] = final;
            }
            else
            {
               cout << "\n\n\t\t\t " << setw(25) << player_pak[id2] << setw(20) <<
"\tWicket \t\t  " << i << "." << j;
               temp = player_pak[id2];
               final = temp + " " + wic;
               player_pak[id2] = final;
            }
            if (id1 < id2)
            {
               id2 = id2 + 1;
            }
            else
            {
               id2 = id1 + 1;
```

```
                }
                if (res == 1)
                {
                    cout << "\n\n\t\t\t\t " << player_ind[id2] << " has come to bat";
                }
                else
                {
                    cout << "\n\n\t\t\t\t " << player_pak[id2] << " has come to bat";
                }
            }
        }
        else if (b == 7)
        {
            // cout << "\n\n"
            //      << "\t\t\t\t\t\t";
            // cout << " " << i << "." << j << " = Wide\n";
            if (res == 1)
            {
                cout << "\n\n\t\t\t " << setw(25) << player_ind[id1] << setw(20) <<
"\tWide \t\t   " << i << "." << j;
            }
            else
            {
                cout << "\n\n\t\t\t " << setw(25) << player_pak[id1] << setw(20) <<
"\tWide \t\t   " << i << "." << j;
            }
            f = 7;
            total++;
            z++;
            goto add;
        }
        else if (b == 8)
        {
            // cout << "\n\n"
```

```
            //      << "\t\t\t\t\t\t";
            // cout << " " << i << "." << j << " = Noball\n";
            if (res == 1)
            {
               cout << "\n\n\t\t\t " << setw(25) << player_ind[id1] << setw(20) <<
"\tNoball \t\t   " << i << "." << j;
            }
            else
            {
               cout << "\n\n\t\t\t " << setw(25) << player_pak[id1] << setw(20) <<
"\tNoball \t\t   " << i << "." << j;
            }
            f = 8;
            total++;
            z++;
            goto add;
         }
         else
         {
            // cout << "\n"
            //      << "\t\t\t\t\t\t"
            //      << " " << i << "." << j << " = " << a << "\n";
            f = 0;
            ball1++;
         }
         if (b == 1 || b == 3)
         {
            if (strike1 == '*')
            {
               player1[id1] += b;
               strike1 = '0';
               if (res == 1)
               {
                  cout << "\n\n\t\t\t " << setw(25) << player_ind[id1] << setw(17) << b
```

```
<< " \t\t   " << i << "." << j;
                }
                else
                {
                   cout << "\n\n\t\t\t " << setw(25) << player_pak[id1] << setw(17) << b
<< " \t\t   " << i << "." << j;
                }
                balls1[id1] += ball1;
             }
             else
             {
                player1[id2] += b;
                strike1 = '*';
                if (res == 1)
                {
                   cout << "\n\n\t\t\t " << setw(25) << player_ind[id2] << setw(17) << b
<< " \t\t   " << i << "." << j;
                }
                else
                {
                   cout << "\n\n\t\t\t " << setw(25) << player_pak[id2] << setw(17) << b
<< " \t\t   " << i << "." << j;
                }
                balls1[id2] += ball1;
             }
             ball1 = 0;
          }
          if (b == 2 || b == 4 || b == 6 || b == 0)
          {
             if (strike1 == '*')
             {
                player1[id1] += b;
                if (res == 1)
                {
```

```
                cout << "\n\n\t\t\t " << setw(25) << player_ind[id1] << setw(17) << b
<< " \t\t   " << i << "." << j;
                }
                else
                {
                cout << "\n\n\t\t\t " << setw(25) << player_pak[id1] << setw(17) << b
<< " \t\t   " << i << "." << j;
                }
                balls1[id1] += ball1;
            }
            else
            {
                player1[id2] += b;
                if (res == 1)
                {
                cout << "\n\n\t\t\t " << setw(25) << player_ind[id2] << setw(17) << b
<< " \t\t   " << i << "." << j;
                }
                else
                {
                cout << "\n\n\t\t\t " << setw(25) << player_pak[id2] << setw(17) << b
<< " \t\t   " << i << "." << j;
                }
                balls1[id2] += ball1;
            }
            ball1 = 0;
        }
        total = (total + a) - f;
        z = (z + a) - f;
        if (f == 0)
        {
            if (b == 4)
            {
                four++;
```

```
            }
            if (b == 6)
            {
               six++;
            }
         }
      }
      cout << "\n\n";
      star();
      cout << "\n\t\t\t\t\t\t Runs in  " << c << "  over = " << total << "/" << w << "\t\t
(4/6) = " << four << "/" << six;
      cout << "\n\t\t\t\t\t\t Wickets remaining"
          << " = " << wickets;
      runrate = float(z) / x;
      cout << "\n\t\t\t\t\t\t Runrate = " << runrate;
      cout << "\n\n\t\t\t\t\t\t Total runs = " << z << "/" << y << "\n\n";
      star();
      getch();
      system("cls");
      cout << "\n\n\n";
      star();
      std::cout << "\t\t\t\t\t CRICKET SCORESHEET AFTER " << i + 1 << "
OVERS\n";
      star();
      cout << "\n\t\t\t\t\t\t    Players\t\t\tRuns\tballs" << endl;
      if (res == 1)
      {
         for (int l = 0; l < 11; l++)
         {
            if (balls1[l] == 0)
            {
               cout << "\n\t\t\t\t\t " << setw(18) << player_ind[l];
            }
            else
```

```
                {
                    cout << "\n\t\t\t\t\t " << setw(18) << player_ind[l] << "\t\t\t" << player1[l]
<< "\t" << balls1[l];
                }
            }
        }
        else
        {
            for (int l = 0; l < 11; l++)
            {
                if (balls1[l] == 0)
                {
                    cout << "\n\t\t\t\t\t " << setw(18) << player_pak[l];
                }
                else
                {
                    cout << "\n\t\t\t\t\t " << setw(18) << player_pak[l] << "\t\t\t" <<
player1[l] << "\t" << balls1[l];
                }
            }
        }
        cout << "\n\n";
        star();
        k++;
        c++;
        total = 0;
        w = 0;
        x++;
        t_four += four;
        t_six += six;
        id3 = id1;
        id1 = id2;
        id2 = id3;
        getch();
```

```
            system("cls");
        }
    jump:
        cout << "\n\n";
        star();
        cout << "\t\t\t\t\t\t\t FIRST INNINGS COMPLETED \n";
        star();
        cout << "\n\n\t\t\t\t\t\t Total runs = " << z << "/" << y << setw(10) << "(" << n <<
")"
             << "\t\t (4/6) = " << t_four << "/" << t_six << endl;
        cout << "\n";
        star();
        std::cout << "\t\t\t\t\t\t  CRICKET SCORESHEET AFTER FIRST INNINGS\n ";
        star();
        cout << "\n\t\t\t\t\t\t   Players\t\t\tRuns\tballs" << endl;
        if (res == 1)
        {
            for (int l = 0; l < 11; l++)
            {
                if (balls1[l] == 0)
                {
                    cout << "\n\t\t\t\t\t " << setw(18) << player_ind[l];
                }
                else
                {
                    cout << "\n\t\t\t\t\t " << setw(18) << player_ind[l] << "\t\t\t" << player1[l]
<< "\t" << balls1[l];
                }
            }
        }
        else
        {
            for (int l = 0; l < 11; l++)
            {
```

```
            if (balls1[l] == 0)
            {
               cout << "\n\t\t\t\t\t " << setw(18) << player_pak[l];
            }
            else
            {
               cout << "\n\t\t\t\t\t " << setw(18) << player_pak[l] << "\t\t\t" << player1[l]
<< "\t" << balls1[l];
            }
         }
      }
      cout << "\n\n ";
      star();
      getch();
      system("cls");
      star();
      if (res == 1)
      {
         res = 2;
      }
      else
      {
         res = 1;
      }
      char strike2 = '*';
      int id_1 = 0, id_2 = 1, id_3, p, q, p1;
      p1 = n - 1;
      // string player_ind_copy[12], player_pak_copy[12];
      for (int i = 0; i < 11; i++)
      {
         player_ind[i] = player_ind_copy[i];
         player_pak[i] = player_pak_copy[i];
      }
      cout << "\t\t\t\t\t\t TEAM " << res << " \n";
```

```
star();
cout << "\n\t\t\t\t\t\t Second innings\n";
cout << "\t\t\t\t\t\t " << n << " Overs match\n";
t_four = 0;
t_six = 0;
getch();
system("cls");
for (i1 = 0; i1 < n; i1++)
{
   srand(time(NULL));
   star();
   cout << "\t\t\t\t\t\t Over  " << k1;
   if (res == 1)
   {
      players_pak();
   }
   else
   {
      players_ind();
   }
   cout << "\n";
   star();
   cout << "\t\t\t\t\t    NAME \t\tRUNS \t\t   OVERS \n";
   four = 0;
   six = 0;
   for (j1 = 1; j1 <= m1; j1++)
   {
      if (z < z1)
      {
         cout << "\n\n";
         star();
         cout << "\t\t\t\t\t\t SECOND INNINGS COMPLETED \n";
         star();
         cout << "\n\n\t\t\t\t\t\t Total runs = " << z1 << "/" << y1 << setw(4) << "("
```

```
<< n << ")"
                << "\t\t (4/6) = " << t_four << "/" << t_six << endl;
            star();
            std::cout << "\t\t\t\t\t\t  CRICKET SCORESHEET AFTER SECOND INNINGS\n ";
            star();
            cout << "\n\t\t\t\t\t\t  Players\t\t\tRuns\tballs" << endl;
            if (res == 1)
            {
               for (int l = 0; l < 11; l++)
               {
                  if (balls2[l] == 0)
                  {
                     cout << "\n\t\t\t\t\t " << setw(18) << player_ind[l];
                  }
                  else
                  {
                     cout << "\n\t\t\t\t\t " << setw(18) << player_ind[l] << "\t\t\t" << player2[l] << "\t" << balls2[l];
                  }
               }
            }
            else
            {
               for (int l = 0; l < 11; l++)
               {
                  if (balls2[l] == 0)
                  {
                     cout << "\n\t\t\t\t\t " << setw(18) << player_pak[l];
                  }
                  else
                  {
                     cout << "\n\t\t\t\t\t " << setw(18) << player_pak[l] << "\t\t\t" << player2[l] << "\t" << balls2[l];
```

```
            }
          }
        }
        cout << "\n\n";
        star();
        getch();
        system("cls");
        cout << "\n";
        star();
        cout << "\t\t\t\t\t\t Congratulations TEAM " << res << " is winner\n";
        star();
        exit(0);
        goto out;
      }
      if (wickets1 == 0)
      {
        cout << "\n\n";
        star();
        cout << "\t\t\t\t\t\t SECOND INNINGS COMPLETED \n";
        star();
        goto high;
        break;
      }
      getch();
    sub:
      a1 = rand() % 9;
      b1 = a1;
      if (b1 == 5)
      {
        // cout << "\n\n"
        //      << "\t\t\t\t\t\t"
        //      << " " << i1 << "." << j1 << " = Wicket";
        f1 = 5;
        wickets1--;
```

```
                w1++;
                y1++;
                ball2++;
                if (strike2 == '*')
                {
                   balls2[id_1] += ball2;
                }
                else
                {
                   balls2[id_2] += ball2;
                }
                ball2 = 0;
                if (strike2 == '*')
                {
                   if (res == 1)
                   {
                      cout << "\n\n\t\t\t " << setw(25) << player_ind[id_1] << setw(20) <<
"\tWicket \t\t   " << i1 << "." << j1;
                      temp = player_ind[id_1];
                      final = temp + " " + wic;
                      player_ind[id_1] = final;
                   }
                   else
                   {
                      cout << "\n\n\t\t\t " << setw(25) << player_pak[id_1] << setw(20) <<
"\tWicket \t\t   " << i1 << "." << j1;
                      temp = player_pak[id_1];
                      final = temp + " " + wic;
                      player_pak[id_1] = final;
                   }
                   if (id_1 < id_2)
                   {
                      id_1 = id_2 + 1;
                   }
```

```
            else
            {
               id_1 = id_1 + 1;
            }
            if (res == 1)
            {
               cout << "\n\n\t\t\t\t " << player_ind[id_1] << " has come to bat";
            }
            else
            {
               cout << "\n\n\t\t\t\t " << player_pak[id_1] << " has come to bat";
            }
         }
         else
         {
            if (res == 1)
            {
               cout << "\n\n\t\t\t " << setw(25) << player_ind[id_2] << setw(20) <<
"\tWicket \t\t   " << i1 << "." << j1;
               temp = player_ind[id_2];
               final = temp + " " + wic;
               player_ind[id_2] = final;
            }
            else
            {
               cout << "\n\n\t\t\t " << setw(25) << player_pak[id_2] << setw(20) <<
"\tWicket \t\t   " << i1 << "." << j1;
               temp = player_pak[id_2];
               final = temp + " " + wic;
               player_pak[id_2] = final;
            }
            if (id_1 < id_2)
            {
               id_2 = id_2 + 1;
```

```
                }
                else
                {
                    id_2 = id_1 + 1;
                }
                if (res == 1)
                {
                    cout << "\n\n\t\t\t\t " << player_ind[id_2] << " has come to bat";
                }
                else
                {
                    cout << "\n\n\t\t\t\t " << player_pak[id_2] << " has come to bat";
                }
            }
        }
        else if (b1 == 7)
        {
            // cout << "\n\n"
            //      << "\t\t\t\t\t\t";
            // cout << " " << i1 << "." << j1 << " = Wide\n";
            if (res == 1)
            {
                cout << "\n\n\t\t\t " << setw(25) << player_ind[id_1] << setw(20) <<
"\tWide \t\t   " << i1 << "." << j1;
            }
            else
            {
                cout << "\n\n\t\t\t " << setw(25) << player_pak[id_1] << setw(20) <<
"\tWide \t\t   " << i1 << "." << j1;
            }
            f1 = 7;
            total1++;
            z1++;
            goto sub;
```

```
            }
            else if (b1 == 8)
            {
               // cout << "\n\n"
               //      << "\t\t\t\t\t\t\t";
               // cout << " " << i1 << "." << j1 << " = Noball\n";
               if (res == 1)
               {
                  cout << "\n\n\t\t\t " << setw(25) << player_ind[id_1] << setw(20) <<
"\tNoball \t\t   " << i1 << "." << j1;
               }
               else
               {
                  cout << "\n\n\t\t\t " << setw(25) << player_pak[id_1] << setw(20) <<
"\tNoball \t\t   " << i1 << "." << j1;
               }
               f1 = 8;
               total1++;
               z1++;
               goto sub;
            }
            else
            {
               // cout << "\n\n"
               //      << "\t\t\t\t\t\t\t"
               //      << " " << i1 << "." << j1 << "=" << a1 << "\n";
               f1 = 0;
               ball2++;
            }
            if (b1 == 1 || b1 == 3)
            {
               if (strike2 == '*')
               {
                  player2[id_1] += b1;
```

```
                strike2 = '0';
                if (res == 1)
                {
                    cout << "\n\n\t\t\t " << setw(25) << player_ind[id_1] << setw(17) <<
b1 << " \t\t   " << i1 << "." << j1;
                }
                else
                {
                    cout << "\n\n\t\t\t " << setw(25) << player_pak[id_1] << setw(17) <<
b1 << " \t\t   " << i1 << "." << j1;
                }
                balls2[id_1] += ball2;
            }
            else
            {
                player2[id_2] += b1;
                strike2 = '*';
                if (res == 1)
                {
                    cout << "\n\n\t\t\t " << setw(25) << player_ind[id_2] << setw(17) <<
b1 << " \t\t   " << i1 << "." << j1;
                }
                else
                {
                    cout << "\n\n\t\t\t " << setw(25) << player_pak[id_2] << setw(17) <<
b1 << " \t\t   " << i1 << "." << j1;
                }
                balls2[id_2] += ball2;
            }
            ball2 = 0;
        }
        if (b1 == 2 || b1 == 4 || b1 == 6 || b1 == 0)
        {
            if (strike2 == '*')
```

```
            {
               player2[id_1] += b1;
               if (res == 1)
               {
                  cout << "\n\n\t\t\t " << setw(25) << player_ind[id_1] << setw(17) <<
b1 << " \t\t   " << i1 << "." << j1;
               }
               else
               {
                  cout << "\n\n\t\t\t " << setw(25) << player_pak[id_1] << setw(17) <<
b1 << " \t\t   " << i1 << "." << j1;
               }
               balls2[id_1] += ball2;
            }
            else
            {
               player2[id_2] += b1;
               if (res == 1)
               {
                  cout << "\n\n\t\t\t " << setw(25) << player_ind[id_2] << setw(17) <<
b1 << " \t\t   " << i1 << "." << j1;
               }
               else
               {
                  cout << "\n\n\t\t\t " << setw(25) << player_pak[id_2] << setw(17) <<
b1 << " \t\t   " << i1 << "." << j1;
               }
               balls2[id_2] += ball2;
            }
            ball2 = 0;
         }
         total1 = (total1 + a1) - f1;
         z1 = (z1 + a1) - f1;
         if (f1 == 0)
```

```
            {
                if (b1 == 4)
                {
                    four++;
                }
                if (b1 == 6)
                {
                    six++;
                }
            }
        }
        cout << "\n\n";
        star();
        cout << "\n\t\t\t\t\t\t Runs in " << c1 << " over = " << total1 << "/" << w1 << "\t\t
(4/6) = " << four << "/" << six;
        cout << "\n\t\t\t\t\t\t Wickets remaining"
            << " = " << wickets1;
        runrate1 = float(z1) / x1;
        cout << "\n\t\t\t\t\t\t NetRunrate = " << runrate1 << "\n";
        p = n - i1 - 1;
        reqrunrate = float(z - z1 + 1) / p;
        cout << "\n\t\t\t\t\t\t RequiredRunrate = " << reqrunrate << "\n";
        q = p1 * 6;
        p1--;
        cout << "\n\t\t\t\t\t\t" << z - z1 + 1 << "  "
            << "from"
            << " " << q << " "
            << "deliveries"
            << "\n";
        cout << "\n\n\t\t\t\t\t\t Total runs = " << z1 << "/" << y1 << setw(4) << "(" << n
<< ")"
            << "\n\n";
        star();
        getch();
```

```
        system("cls");
        cout << "\n\n\n";
        star();
        std::cout << "\t\t\t\t\t\t CRICKET SCORESHEET AFTER " << i1 + 1 << "
OVERS\n";
        star();
        cout << "\n\t\t\t\t\t\t   Players\t\t\tRuns\tballs" << endl;
        if (res == 1)
        {
           for (int l = 0; l < 11; l++)
           {
              if (balls2[l] == 0)
              {
                 cout << "\n\t\t\t\t\t " << setw(18) << player_ind[l];
              }
              else
              {
                 cout << "\n\t\t\t\t\t " << setw(18) << player_ind[l] << "\t\t\t" << player2[l]
<< "\t" << balls2[l];
              }
           }
        }
        else
        {
           for (int l = 0; l < 11; l++)
           {
              if (balls2[l] == 0)
              {
                 cout << "\n\t\t\t\t\t " << setw(18) << player_pak[l];
              }
              else
              {
                 cout << "\n\t\t\t\t\t " << setw(18) << player_pak[l] << "\t\t\t" <<
player2[l] << "\t" << balls2[l];
```

```
            }
        }
    }
    cout << "\n\n";
    star();
    k1++;
    c1++;
    total1 = 0;
    w1 = 0;
    x1++;
    t_four += four;
    t_six += six;
    id_3 = id_1;
    id_1 = id_2;
    id_2 = id_3;
    getch();
    system("cls");
    if (z < z1)
    {
        if (z == z1)
        {
            cout << "\n\n\t\t\t\t\t\t Match is TIE";
        }
        else
        {
        innings:
            cout << "\n\n";
            star();
            cout << "\t\t\t\t\t SECOND INNINGS COMPLETED \n";
            star();
            cout << "\n\n\t\t\t\t\t\t Total runs = " << z1 << "/" << y1 << setw(5) << "("
<< n << ")"
                 << "\t\t (4/6) = " << t_four << "/" << t_six << endl;
            star();
```

```
            std::cout << "\t\t\t\t\t\t  CRICKET SCORESHEET AFTER SECOND
INNINGS\n ";
            star();
            cout << "\n\t\t\t\t\t\t  Players\t\t\tRuns\tballs" << endl;
            if (res == 1)
            {
               for (int l = 0; l < 11; l++)
               {
                  if (balls2[l] == 0)
                  {
                     cout << "\n\t\t\t\t\t " << setw(18) << player_ind[l];
                  }
                  else
                  {
                     cout << "\n\t\t\t\t\t " << setw(18) << player_ind[l] << "\t\t\t" <<
player2[l] << "\t" << balls2[l];
                  }
               }
            }
            else
            {
               for (int l = 0; l < 11; l++)
               {
                  if (balls2[l] == 0)
                  {
                     cout << "\n\t\t\t\t\t " << setw(18) << player_pak[l];
                  }
                  else
                  {
                     cout << "\n\t\t\t\t\t " << setw(18) << player_pak[l] << "\t\t\t" <<
player2[l] << "\t" << balls2[l];
                  }
               }
            }
```

```
                cout << "\n\n";
                star();
                getch();
                system("cls");
                cout << "\n";
                star();
                cout << "\t\t\t\t\t\t Congratulations TEAM " << res << " is winner\n";
                star();
                exit(0);
            }
        }
    }
high:
out:
    cout << "\n\n";
    star();
    cout << "\t\t\t\t\t\t\t SECOND INNINGS COMPLETED \n";
    star();
    cout << "\n\n\t\t\t\t\t\t\t Total runs = " << z1 << "/" << y1 << "\t\t (4/6) = " << t_four
<< "/" << t_six << endl;
    star();
    std::cout << "\t\t\t\t\t\t  CRICKET SCORESHEET AFTER SECOND INNINGS\n
";
    star();
    cout << "\n\t\t\t\t\t\t   Players\t\t\tRuns\tballs" << endl;
    if (res == 1)
    {
        for (int l = 0; l < 11; l++)
        {
            if (balls2[l] == 0)
            {
                cout << "\n\t\t\t\t\t " << setw(18) << player_ind[l];
            }
            else
```

```
            {
                cout << "\n\t\t\t\t\t " << setw(18) << player_ind[l] << "\t\t\t" << player2[l]
<< "\t" << balls2[l];
            }
        }
    }
    else
    {
        for (int l = 0; l < 11; l++)
        {
            if (balls2[l] == 0)
            {
                cout << "\n\t\t\t\t\t " << setw(18) << player_pak[l];
            }
            else
            {
                cout << "\n\t\t\t\t\t " << setw(18) << player_pak[l] << "\t\t\t" << player2[l]
<< "\t" << balls2[l];
            }
        }
    }
    cout << "\n\n";
    star();
    getch();
    system("cls");
    cout << "\n";
    star();
    if (res == 2)
    {
        res = 1;
    }
    else
    {
        res = 2;
```

```
        }
        cout << "\t\t\t\t\t\t Congratulations TEAM " << res << " is winner\n";
        star();
        return 0;
    }
    else
    {
        star();
        cout << "\t\t\t\t\t\t Invalid input\n";
        star();
        getch();
        goto over;
    }
 }
 int main()
 {
    system("cls");
    int res;
    res = toss();
    match(res);
}
```

CHAPTER 5

RESULTS

5.1 OUTPUT SCREEN SHOTS

```
**********************************************************************************
                                  Toss
**********************************************************************************

                        Team 1 can choose

                        Enter H for Head and T for Tail

                        Enter your choice :    h

**********************************************************************************
                        Coin has been tossed and its Tail
**********************************************************************************
```

```
**********************************************************************************
                         ****TEAM 2 WON THE TOSS****
**********************************************************************************
**********************************************************************************
                  Enter 1 for batting or 2 for bowling = 2
**********************************************************************************
```

```
**********************************************************************************
                                Team Details
**********************************************************************************
                Team 1                              (toss)Team 2 (Bowling)
**********************************************************************************

            Dhawan                                  Babar Azam
             Rohit                                  Md Rizwan
       Virat kholi                                  Azam Khan
             Ayer                                   Afridi
             Pant                                   Md Hafeez
     Hardik pandya                                  Fakhar Zaman
     Krunal pandya                                  Md Hasnain
            B kumar                                 Sohaib Maqsood
             Bumra                                  Shadab Khan
    Ishanth sharma                                  Wasim
            Shami                                   Haris Rauf

**********************************************************************************
```

```
**********************************************************************************
                    CRICKET SCORECARD MANAGEMENT SYSTEM
**********************************************************************************

                     Enter the number of overs = 2
```

```
**********************************************************************************
                                TEAM 1
**********************************************************************************
**********************************************************************************
                     Over  1 is bowled by Babar Azam
**********************************************************************************
                NAME              RUNS              OVERS

                Dhawan            Noball            0.1

                Dhawan              6               0.1

                Dhawan              3               0.2

                Dhawan            Noball            0.3

                 Rohit              0               0.3

                 Rohit              2               0.4

                 Rohit              1               0.5

                Dhawan            Noball            0.6

                Dhawan              2               0.6

**********************************************************************************

                     Runs in  1  over = 17/0                (4/6) = 0/1
                     Wickets remaining = 10
                     Runrate = 17

                     Total runs = 17/0

**********************************************************************************
```

```
**********************************************************************************
                    CRICKET SCORESHEET AFTER 1 OVERS
**********************************************************************************

                      Players                   Runs    balls

                       Dhawan                   11      3
                        Rohit                   3       3
                  Virat kholi
                        Ayer
                        Pant
                  Hardik pandya
                  Krunal pandya
                      B kumar
                        Bumra
                  Ishanth sharma
                        Shami

**********************************************************************************
```

```
**********************************************************************************
                    Over  2 is bowled by Afridi
**********************************************************************************
                NAME              RUNS              OVERS

                Rohit               6                1.1

                Rohit               3                1.2

               Dhawan               1                1.3

                Rohit               3                1.4

                Rohit              Wide              1.5

               Dhawan               0                1.5

               Dhawan               4                1.6

**********************************************************************************

                    Runs in  2  over = 18/0                (4/6) = 1/1
                    Wickets remaining = 10
                    Runrate = 17.5

                    Total runs = 35/0

**********************************************************************************
```

```
********************************************************************************
                    CRICKET SCORESHEET AFTER 2 OVERS
********************************************************************************

                      Players                   Runs    balls

                       Dhawan                   16      6
                        Rohit                   15      6
                   Virat kholi
                        Ayer
                        Pant
                  Hardik pandya
                  Krunal pandya
                       B kumar
                        Bumra
                  Ishanth sharma
                        Shami

********************************************************************************
```

```
********************************************************************************
                          FIRST INNINGS COMPLETED
********************************************************************************


                Total runs = 35/0        (2)          (4/6) = 1/2

********************************************************************************
                    CRICKET SCORESHEET AFTER FIRST INNINGS
********************************************************************************

                      Players                   Runs    balls

                       Dhawan                   16      6
                        Rohit                   15      6
                   Virat kholi
                        Ayer
                        Pant
                  Hardik pandya
                  Krunal pandya
                       B kumar
                        Bumra
                  Ishanth sharma
                        Shami

********************************************************************************
```

```
********************************************************************************
                              TEAM 2
********************************************************************************

                        Second innings
                        2 Overs match
```

```
********************************************************************************
                      Over  1  is bowled by  Bumra
********************************************************************************
                NAME              RUNS              OVERS

              Babar Azam          Wide              0.1

              Babar Azam            0               0.1

              Babar Azam            1               0.2

              Babar Azam          Wide              0.3

               Md Rizwan            3               0.3

              Babar Azam          Noball            0.4

              Babar Azam            6               0.4

              Babar Azam            4               0.5

              Babar Azam            0               0.6

********************************************************************************

                      Runs in 1 over = 17/0          (4/6) = 1/1
                      Wickets remaining = 10
                      NetRunrate = 17

                      RequiredRunrate = 19

                     19  from 6 deliveries


                      Total runs = 17/0   (2)

********************************************************************************
```

```
**********************************************************************************
                    CRICKET SCORESHEET AFTER 1 OVERS
**********************************************************************************

                      Players                    Runs    balls

                    Babar Azam                   11      5
                     Md Rizwan                   3       1
                     Azam Khan
                        Afridi
                     Md Hafeez
                    Fakhar Zaman
                     Md Hasnain
                   Sohaib Maqsood
                     Shadab Khan
                          Wasim
                     Haris Rauf

**********************************************************************************
```

```
**********************************************************************************
                    Over  2  is bowled by  Virat kholi
**********************************************************************************
              NAME                RUNS                OVERS

           Md Rizwan              Wide                1.1

           Md Rizwan              Wide                1.1

           Md Rizwan                1                 1.1

          Babar Azam                6                 1.2

          Babar Azam                2                 1.3

           Md Rizwan              Wide                1.4

          Babar Azam              Wicket              1.4

      Azam Khan has come to bat

           Azam Khan                2                 1.5

           Azam Khan                3                 1.6
**********************************************************************************

                  Runs in 2 over = 17/1          (4/6) = 0/1
                  Wickets remaining = 9
                  NetRunrate = 17

                  RequiredRunrate = inf

                 2  from 0 deliveries


                  Total runs = 34/1   (2)
```

```
**********************************************************************************
                    CRICKET SCORESHEET AFTER 2 OVERS
**********************************************************************************

                    Players                     Runs    balls

                Babar Azam (out)                19      8
                      Md Rizwan                 4       2
                      Azam Khan                 5       2
                         Afridi
                      Md Hafeez
                    Fakhar Zaman
                      Md Hasnain
                   Sohaib Maqsood
                      Shadab Khan
                           Wasim
                      Haris Rauf

**********************************************************************************
```

```
**********************************************************************************
                        SECOND INNINGS COMPLETED
**********************************************************************************


                    Total runs = 34/1               (4/6) = 1/2
**********************************************************************************
                    CRICKET SCORESHEET AFTER SECOND INNINGS
**********************************************************************************

                    Players                     Runs    balls

                Babar Azam (out)                19      8
                      Md Rizwan                 4       2
                      Azam Khan                 5       2
                         Afridi
                      Md Hafeez
                    Fakhar Zaman
                      Md Hasnain
                   Sohaib Maqsood
                      Shadab Khan
                           Wasim
                      Haris Rauf

**********************************************************************************
```

```
**********************************************************************************
                    Congratulations TEAM 1 is winner
**********************************************************************************
```

5.2 TEST CASES

```
**********************************************************************************
                                    Toss
**********************************************************************************

                          Team 1 can choose

                          Enter H for Head and T for Tail

                          Enter your choice : a

**********************************************************************************
**********************************************************************************
                                  INVALID CHOICE
**********************************************************************************
```

```
**********************************************************************************
                                    Toss
**********************************************************************************

                          Team 1 can choose

                          Enter H for Head and T for Tail

                          Enter your choice : 4

**********************************************************************************
**********************************************************************************
                                  INVALID CHOICE
**********************************************************************************
```

```
**********************************************************************************
                          ****TEAM 1 WON THE TOSS****
**********************************************************************************
**********************************************************************************
                  Enter 1 for batting or 2 for bowling = 3
**********************************************************************************
**********************************************************************************
                                  Invalid input
**********************************************************************************
```

```
**********************************************************************************
                        ****TEAM 1 WON THE TOSS****
**********************************************************************************
**********************************************************************************
                  Enter 1 for batting or 2 for bowling = a
**********************************************************************************
**********************************************************************************
                                Invalid input
**********************************************************************************
```

```
**********************************************************************************
                        CRICKET SCORECARD MANAGEMENT SYSTEM
**********************************************************************************

                        Enter the number of overs = a
**********************************************************************************
                                Invalid input
**********************************************************************************
```

```
**********************************************************************************
                        CRICKET SCORECARD MANAGEMENT SYSTEM
**********************************************************************************

                        Enter the number of overs = 0
**********************************************************************************
                                Invalid input
**********************************************************************************
```

```
**********************************************************************************
                        CRICKET SCORECARD MANAGEMENT SYSTEM
**********************************************************************************

                        Enter the number of overs = -1
**********************************************************************************
                                Invalid input
**********************************************************************************
```

CHAPTER 6

CONCLUSION

It is concluded that the application works well and satisfy the end users. The application is tested very well and errors are properly debugged. The application is simultaneously accessed from more than one system. Simultaneous login from more than one place is tested. This system is user friendly so everyone can use easily. Proper documentation is provided. The end user can easily understand how the whole system is implemented by going through the documentation. The system is tested, implemented and the performance is found to be satisfactory. All necessary output is generated. Thus, the project is completed successfully. Further enhancements can be made to the application, so that the application functions very attractive and useful manner than the present one.

REFERENCES

- Cricbuzz
- ESPN Cricinfo
- Cricket Exchange
- Cricket line Guru
- Cricket connected live cricket score app