DAA GROUP PROJECT (CSE – 201 L)

GROUP MEMBERS (Serial no.11 in Excel Spreadsheet)

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Score board generation using C/C++ only

1. Go to the following site and take any of the historical match
https://www.espncricinfo.com/ci/engine/series/index.html
2. In the match, take the commentary as input to your program and generate the output as score board as given
3. The code should be compatible to any matches

Code for generation of scoreboard from commentary input file :-

```
/* C++ PROGRAM TO GENERATE CRICKET SCOREBOARD FROM STANDARD
PROFESSIONAL ENGLISH COMMENTARY OF ANY MATCH, ANY INNINGS */

#include <bits/stdc++.h>
#include <fstream>
#include <regex>
#include <string.h>
using namespace std;

int main()
{
   int c=0,i=0,j=0,num=0,way=0,first=0,second=0,tot=0,wic=0;
   string line,file1,file2,T,f1name[11],l1name[11],f2name[11],l2name[11],cric[15];
   string c1,c2,c3,c4;
   float runs[11]={0},balls[11]={0},fours[11]={0},sixes[11]={0},str[11]={0},d[11]={0};
   float b[11]={0},wd[11]={0},lb[11]={0},r[11]={0},w[11]={0},eco[11]={0},nb[11]={0};
   float pos1[11],pos2[11],crr=0.0;
   vector <string> v,t1,t2,bat,ball;

   file1 = "C:\\Users\\DEVI GIRI\\OneDrive\\Desktop\\DAA PROJECT COMMENTARY.txt";
   file2 = "C:\\Users\\DEVI GIRI\\OneDrive\\Desktop\\DAA PROJECT SCOREBOARD.txt";

   cric[0] = "India";
   cric[1] = "Australia";
   cric[2] = "England";
   cric[3] = "New Zealand";
   cric[4] = "West Indies";
   cric[5] = "Pakistan";
   cric[6] = "Afghanistan";
   cric[7] = "Bangladesh";
   cric[8] = "Sri Lanka";
   cric[9] = "Zimbabwe";
   cric[10] = "Scotland";
   cric[11] = "Ireland";
   cric[12] = "Namibia";
   cric[13] = "Netherlands";
```

```
ifstream fin;
fin.open(file1);

while (fin)
{
      getline(fin, line);
      T = line;
      for(i=0;i<14;i++)
      {
          if((T.find(": 1")!=-1 )&& (T.find(cric[i]) == 0))
          {
              j++;
              if(j==1)
                  first = i;
              else if(j==2)
                  second = i;
              break;
          }
      }
       if(j==1)
       {
                c=0;
                stringstream X(line);
                while(getline(X,T,','))
                {
                    c++;
                    int pos = T.find(": ");
                    if(c<=9)
                        t1.push_back(T.substr(pos+4));
                   else
                        t1.push_back(T.substr(pos+5));
                }
                continue;
       }
       else if(j==2)
       {
                c=0;
                stringstream X(line);
                while(getline(X,T,','))
                {
```

```
                    c++;
                    int pos = T.find(": ");
                    if(c<=9)
                        t2.push_back(T.substr(pos+4));
                    else
                        t2.push_back(T.substr(pos+5));

                }
                j++;
            }
            else if(j==3 && i==14)
             {
                 if((T.find(", 1 run")!=-1)&&(T.find(" to ")!=-1)&&(T.find(", ")>T.find(" to
"))&&(T.find(", 1 run")==T.find(", ")))
                 {
                    // cout << T << endl;
                     stringstream X(line);
                     while(getline(X,T,' '))
                     {
                         for(i=0;i<t1.size();i++)
                         {
                             if(t1[i].find(T)!=-1)
                             {
                                 way = 2;
                                 break;
                             }
                             else if(t2[i].find(T)!=-1)
                             {
                                  way = 1;
                                  break;
                             }

                         }
                         break;
                     }
                     break;
                 }

              }
            //break;
```

```
    }


    if(way == 1)
    {
        for(i=0;i<t1.size();i++)
        {
            bat.push_back(t1[i]);
            ball.push_back(t2[i]);
        }

    }
    else if(way == 2)
    {
        for(i=0;i<t2.size();i++)
        {
            bat.push_back(t2[i]);
            ball.push_back(t1[i]);
        }
        swap(first,second);
    }

    cout <<"\n\n
==========================================================================\n";
    cout << "  ||      " <<cric[first]<<" Squad";
    j= 8;
    while(j--)
    {
       cout << " ";
    }
    cout << "  ||       "<<cric[second]<<" Squad       ||\n";
    cout <<"
==========================================================================\n";
    for(i=0;i<bat.size();i++)
    {
      f1name[i] = "",l1name[i] = "";
      pos1[i] = bat[i].find(" ");
      f1name[i] += bat[i].substr(0,pos1[i]);
      if((bat[i].substr(pos1[i]+1).find(" (")!=-1)||(bat[i].substr(pos1[i]+1).find(".")!=-1))
      {
```

```
   int pos=0;
   if((bat[i].substr(pos1[i]+1).find(" (")!=-1))
      pos = bat[i].substr(pos1[i]+1).find(" (");
   else
      pos = bat[i].substr(pos1[i]+1).find(".");
   l1name[i] += (bat[i].substr(pos1[i]+1)).substr(0,pos);

}
else
{
    l1name[i] += bat[i].substr(pos1[i]+1);
    if(l1name[i] == "Dhawan")
          l1name[i] = "S "+l1name[i];
    else if(bat[i] == "Rohit Sharma")
          l1name[i] = "Rohit Sharma";
}

f2name[i] = "",l2name[i] = "";
pos2[i] = ball[i].find(" ");
f2name[i] += ball[i].substr(0,pos2[i]);

if((ball[i].substr(pos2[i]+1).find(" (")!=-1)||(ball[i].substr(pos2[i]+1).find(".")!=-1))
{
   int pos = 0;
   if((ball[i].substr(pos2[i]+1).find(" (")!=-1))
      pos = ball[i].substr(pos2[i]+1).find(" (");
   else
      pos = ball[i].substr(pos2[i]+1).find(".");
   l2name[i] += (ball[i].substr(pos2[i]+1)).substr(0,pos);
}
else
    l2name[i] += ball[i].substr(pos2[i]+1);

string a="",b="";
int k = 20-bat[i].length();
while(k--)
{
   a = a.append(" ");
}
k = 20-ball[i].length();
```

```
    while(k--)
    {
       b = b.append(" ");
    }
    bat[i] = bat[i]+a;
    ball[i] = ball[i]+b;
    if(i<=8)
        cout <<"  ||  "<<i+1<< "). " << bat[i]<<" ||    "<<i+1<< "). "<<ball[i]<<" ||  \n";
     else
        cout <<"  ||  "<<i+1<< "). " << bat[i]<<"||    "<<i+1<< "). "<<ball[i]<<"||\n";
  }
  cout <<"
==========================================================================\n";
  cout << endl << endl;
  fin.close();

  fin.open(file1);
  cout << "\nThe useful ball by ball commentary lines are the following.\n\n";
   int vis[50];
    for(i=0;i<50;i++)
    {
          vis[i]=0;
    }
  while(fin)
  {

    getline(fin, line);
    T = line;
    if((T.find(" to ")==-1)||(T.find(",")==-1))
    {
       continue;
    }
    static int n=0;
    for(i=0;i<11;i++)
    {
       if((T.find(f1name[i])==-1)&&(T.find(l1name[i])==-1))
           continue;
       for(j=0;j<11;j++)
       {
         if((T.find(f2name[j])==-1)&&(T.find(l2name[j])==-1))
```

```
    continue;
else
{
 c1="",c2="",c3="",c4="";
 c1 = c1.append(f2name[j]);
 c1 = c1.append(" to ");
 c1 = c1.append(f1name[i]);
 c1 = c1.append(", ");

 c2 = c2.append(f2name[j]);
 c2 = c2.append(" to ");
 c2 = c2.append(l1name[i]);
 c2 = c2.append(", ");

 c3 = c3.append(l2name[j]);
 c3 = c3.append(" to ");
 c3 = c3.append(f1name[i]);
 c3 = c3.append(", ");

 c4 = c4.append(l2name[j]);
 c4 = c4.append(" to ");
 c4 = c4.append(l1name[i]);
 c4 = c4.append(", ");

 if((T.find(c1) != -1)||(T.find(c2) != -1)||(T.find(c3) != -1)||(T.find(c4) != -1))
 {
    if((n%6== 0)&&((vis[n/6])==0) )
    {
        vis[(n/6)]=1;

        if(n/6 == 0)
            cout <<endl <<(n/6)+1<<"st over\n\n";
        else if(n/6 == 1)
            cout <<endl <<(n/6)+1<<"nd over\n\n";
        else if(n/6 == 2)
            cout <<endl <<(n/6)+1<<"rd over\n\n";
        else
            cout <<endl <<(n/6)+1<<"th over\n\n";
    }
    cout <<"  "<< T << "\n";
```

```
if(T.find(", 1 run") != -1)
   num=1;
else if(T.find(", 2 runs") != -1)
   num =2;
else if(T.find(", 3 runs") != -1)
   num=3;
else if(T.find(", FOUR runs") != -1)
{
   num=4;
   fours[i]++;
}
else if(T.find(", SIX runs") != -1)
{
   num=6;
   sixes[i]++;
}
else if(T.find(", no run") != -1)
{
   num = 0;
   d[i]++;
}
else if(T.find(", OUT") != -1)
{
   num=0;
   w[j]++;
}
else if(T.find(", 1 wide") != -1)
{

   num=1;
   wd[j]++;
   --runs[i];
   --b[j];
   --n;
   --balls[i];
}
else if(T.find(", 1 leg bye")!=-1)
{
   num = 1;
```

```
        lb[j]++;
        runs[i]--;
        --r[j];
    }
    else if(T.find(", 1 bye")!=-1)
    {
        num = 1;
        lb[j]++;
        runs[i]--;
        --r[j];
    }
    else if(T.find(", (no ball)")!=-1)
    {
        if(T.find(", (no ball) 1 run")!=-1)
        {
            num = 2;
            nb[j]++;
            --runs[i];
            --b[j];
            --n;

        }
        else
        {
            num = 1;
            nb[j]++;
            --runs[i];
            --b[j];
            --n;
        }

    }


    runs[i]+=num;
    balls[i]++;
    r[j]+=num;
    b[j]++;
    ++n;
}
```

```
            }
          }
        }
    }

    for(i=0;i<11;i++)
    {
       if(runs[i]>0)
          str[i] = (float)(runs[i]*100.00)/balls[i];
       else if(runs[i]==0)
          str[i]=0;
       if(b[i]>0)
       {
            eco[i] = (float)(r[i]*6.00)/b[i];
            tot+=b[i];
       }
       else if(b[i]==0)
          eco[i]=0;
       tot+=lb[i];
       wic+=w[i];
    }
    crr = (float)(tot*6.00)/300;
    cout <<"\nThe total score at the end of first innings is "<< tot << "/"<<wic<<endl;
    cout << "The required run rate for the chasing team (or) the run rate of the batting team at the
end of first innings is " << crr << endl << endl;
    fin.close();



    ofstream fout;
    fout.open(file2);
    i=0;
    transform(cric[first].begin(),cric[first].end(),cric[first].begin(),::toupper);
     transform(cric[second].begin(),cric[second].end(),cric[second].begin(),::toupper);
    fout << "\n              "<<cric[first]  <<" VS "<<cric[second]<<" ODI, 1ST INNINGS
SCOREBOARD";
    fout << "\n              ----------------------------------------------\n\n";
    fout << "\nBATTING SCORECARD\n";
    fout << "-----------------\n\n";
```

```
   fout << left << setw(20) << "Batsman" << left << setw(8) << "Runs"<< left << setw(8) <<
"Balls"<< left << setw(8) << "Fours" << left << setw(8) <<"Sixes" <<left << setw(8)<<
"Dots"<< left << setw(8)<<"S.Rate" << endl << endl << endl;
   while (fout && i<11)
   {
      fout << bat[i] << left << setw(8) << runs[i] <<left << setw(8) <<  balls[i] <<left << setw(8)
<< fours[i] << left << setw(8) <<sixes[i] <<left <<setw(8) << d[i]<<left << setw(8)<< str[i] <<
endl ;
      i++;
   }
   fout << "\n---------------------------------------------------------------------------------";
   fout << "\n---------------------------------------------------------------------------------\n\n";


   fout << "\nBOWLING SCORECARD\n";
   fout << "-----------------\n\n";
   i=0;
   fout << left << setw(20) << "Bowler" << left << setw(8) << "Overs"<< left << setw(8)
<<"Wickets" <<left << setw(8) << "Runs" <<left << setw(8) << "Wide"<< left << setw(8) <<
"N.Balls" <<left << setw(8) << "Byes"<<left << setw(8)<<"E.Rate"<< endl << endl << endl;
   while (fout && i<11)
   {
      fout   << ball[i] <<  left << setw(8) <<(b[i]/6)<< left << setw(8)  << w[i]<<left << setw(8)
<< r[i]<< left << setw(8)  << wd[i] << left << setw(8) << nb[i]<<left <<setw(8)<< lb[i]<<left
<<setw(8) << eco[i]<< endl;
      i++;
   }
   fout << "\n---------------------------------------------------------------------------------";
   fout << "\n---------------------------------------------------------------------------------\n\n";
   fout << "\nThe total score at the end of first innings is "<< tot << "/"<<wic<<endl<<endl;
   fout << "The required run rate for the chasing team (or) the run rate of the batting team at the
end of first innings is " << crr << endl << endl;
   fout.close();

   return 0;
}
```