Final Report
(Cricket Match Scoring System)
*(**CricStatz**)*

Course Code: CS110 **Course Title:** Computer Programming

Semester: B. Tech 2^{nd} Sem **Section:** S3

Academic Year: 2019-20 **Course Instructor:** Vaishnavi T

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1 Abstract

Brief Description:

Hello Readers, it gives us immense pleasure to welcome you to ***CricStatz***, a cricket scoring system programmed and developed by the four of us who are real cricket enthusiasts and true fanatics of the game in its true sense. Our love and passion for the game was the clear motivating factor to develop this scoring game.

Through C programming, we bring to you an exclusive system that records cricket match proceedings on the move and declares results right along with some commentary adding finesse. Cricket being considered a religion in India and cricketers being given the status of demi gods with a huge fan following, we are quite confident that there will be many takers for such a system as it has the ability to create accurate scorecards for any match, be it domestic or international or even gully cricket, without depending on any additional resources. All you have to do is type in names into our pre-written code and you can use the system for a match of your own.

CricStatz is a 2-over-per-side match(extendable) scoring system that covers all essential details and displays it to the user in the most user friendly way. With toss, weather conditions, pitch analysis, playing XI display, umpires and "as seen on TV" scorecard display, it is a very

primitive version of score-keeping.

All you have to do is follow the instructions that appear on screen and the rest is taken care of. All in all every basic detail of cricket has been incorporated into ***CricStatz*** including result declaration based on super over and boundary count in case of tie and ensuring that the ball to ball information is error-free.

Key Features:

1. Toss
2. Weather condition
3. Pitch analysis and venue characteristics
4. General commentary panel
5. Playing XI display
6. Ball-by-ball score input
7. Current run rate display
8. Required run rate display
9. Projected score display
10. Innings-by-innings scorecard display as seen on TV
11. Super over incorporation in case of a tie in the primary match
12. Boundary count incorporation in case of a tie in super over

2 Introduction

This section describes the use of the system by detailing the abstract.

CricStatz, as mentioned before, is intended to be user-friendly at every step. Al he/she has to do is simply follow the instructions on screen. By the use of functions, we've made the code as simple as we could so that when users want to change any component, be it the players' names or venue details, they can easily access it. Each function's name is self-explanatory of what its intended purpose is for. Even the variables used carry the same advantage.

With 20 user defines functions, the code is integrated to serve its purpose under any possible scenario. We've tried our far best to incorporate every detail of a real life game into the code. It entails super over scenario in case of a tie in the primary match, and boundary count in case of a tie in the super over.

Using the concept of files, we've incorporated interesting venue details into the display. We've covered 8 major stadiums across India, but as stated earlier, the user can add more as per his/her wish.

Finally, there's a commentary panel to keep up the spirit of the game.

While coming to the key features;

1. Toss

The user is represented as the captain of the home team (India (Virat Kohli)) and is the one calling heads or tails as the opponent captain tosses the coin into the air. Using 'random' function, either Australia (opponent) wins the toss and chose either to bat or bowl, or if India (user) wins the toss, then he/she can chose either to bat or bowl.

2. Setting striker and non-striker

The code is written in such a way that the user has to enter the appropriate striker and non-striker depending on which team is batting. This is to reduce errors in scorecard display as we've kept in mind the application of our system in real life.

3. Setting bowler

Similar to setting batsmen, the code ensures input of appropriate bowler name.

4. Ball-by-ball input of runs scored

Although the code begins execution with the 'main' function, the 'entries' function is the heart of the program. The user inputs the action taking place in every ball of an innings by inputting -1 through 7, -1 being dismissal, 0 through 6 being their respective scores and 7 being extras. This is where all the information is processed and stored in their respective locations- be it bowling figures of bowlers or batting figures of batsmen.

5. Intermediate functions to ensure continuity

In cricket, after an over is completed, there is a change of bowler. Before that, the figures of the previous bowler have to be updated. There is also a change of strike. All these things are incorporated into the program to ensure smooth and error free flow of the code.

6. Display of run-rates

The rate at which runs are being scored and thereby the projected score of the team batting first and the required run rate to win the match for the team batting second are displayed before user inputs the action of the particular ball.

7. Super Over

What if after the match gets over, both the teams have the same score? Well there is no definitive winner then. Luckily cricket has something exciting in store for us under these circumstances. A super over or one-over-per-side match is played and just like in the primary match, the team scoring higher wins. But what if the scores are tied even after a super over!? There is no point in conducting another super over. As it happened in the 2019 ICC Men's 50 over World Cup, the winner is then decided based on boundary count i.e. the team crossing the fence more number of times is deemed the winner.

8. "As seen on TV" display

The scorecard after every innings is displayed as it would appear on TV, including details of the batting and bowling figures, target and required run rate to win the match for the team batting second.

3 Flowchart

This section includes the flowchart

(P.T.O.)

Team_6

CricStatz Scoring System

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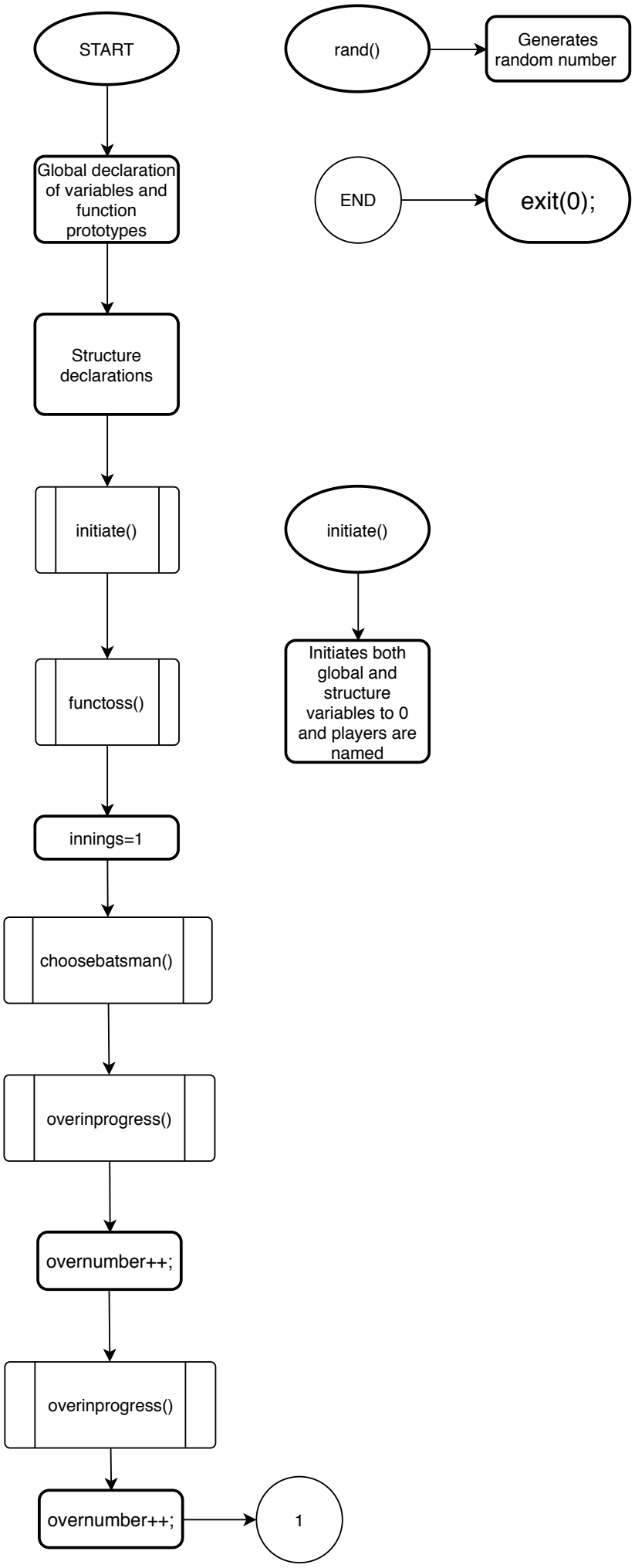

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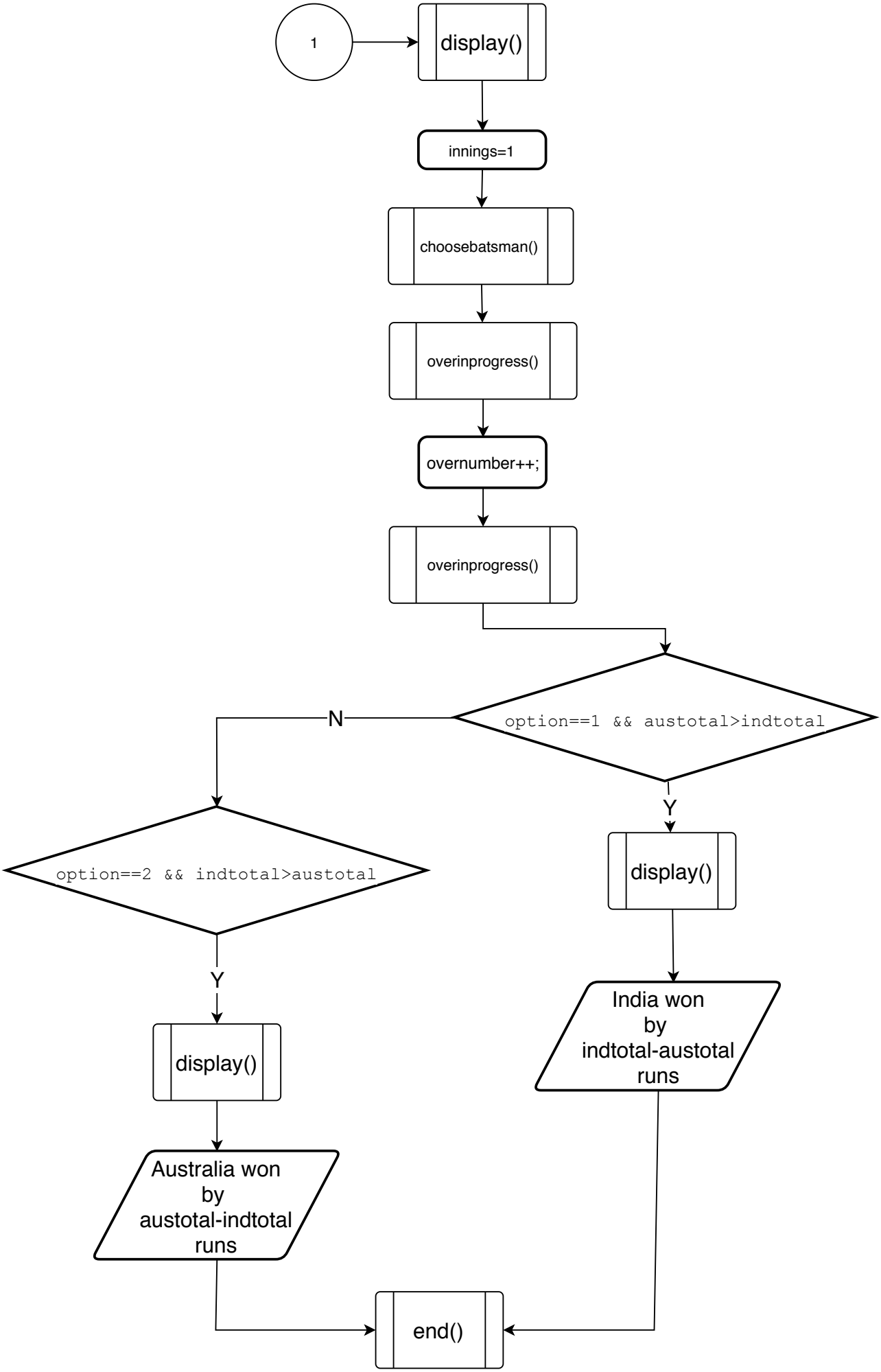
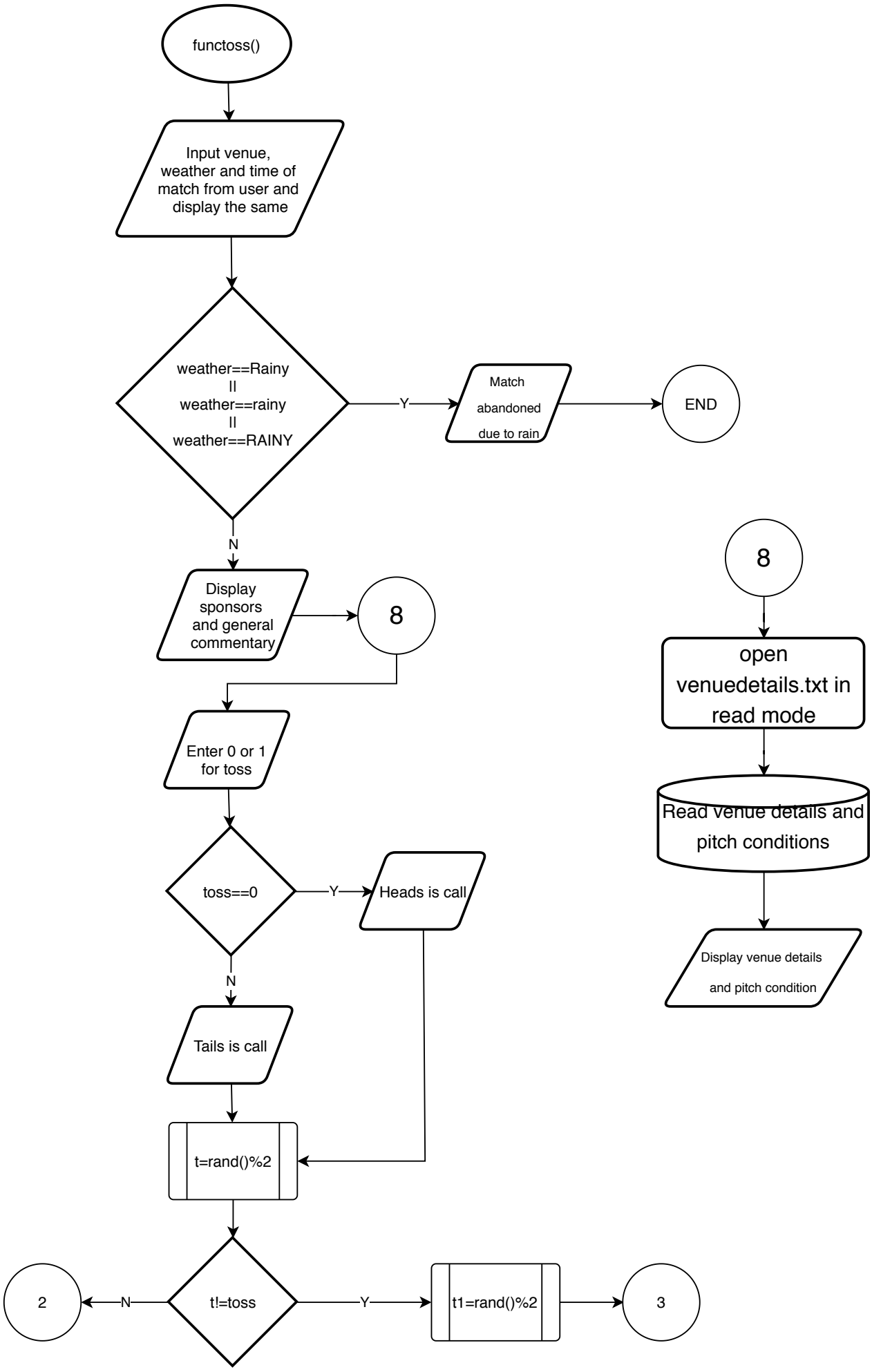

1
display()
innings=1
choosebatsman()
overinprogress()
overnumber++;
overinprogress()
option==1 && austotal>indtotal
N
Y
option==2 && indtotal>austotal
display()
Y
display()
India won by indtotal-austotal runs
Australia won by austotal-indtotal runs
end()

,


functoss()
Input venue, weather and time of match from user and display the same
weather==Rainy || weather==rainy || weather==RAINY
Y
Match abandoned due to rain
END
N
Display sponsors and general commentary
8
8
open venuedetails.txt in read mode
Read venue details and pitch conditions
Display venue details and pitch condition
Enter 0 or 1 for toss
toss==0
Y
Heads is call
N
Tails is call
t=rand()%2
t!=toss
N
2
Y
t1=rand()%2
3

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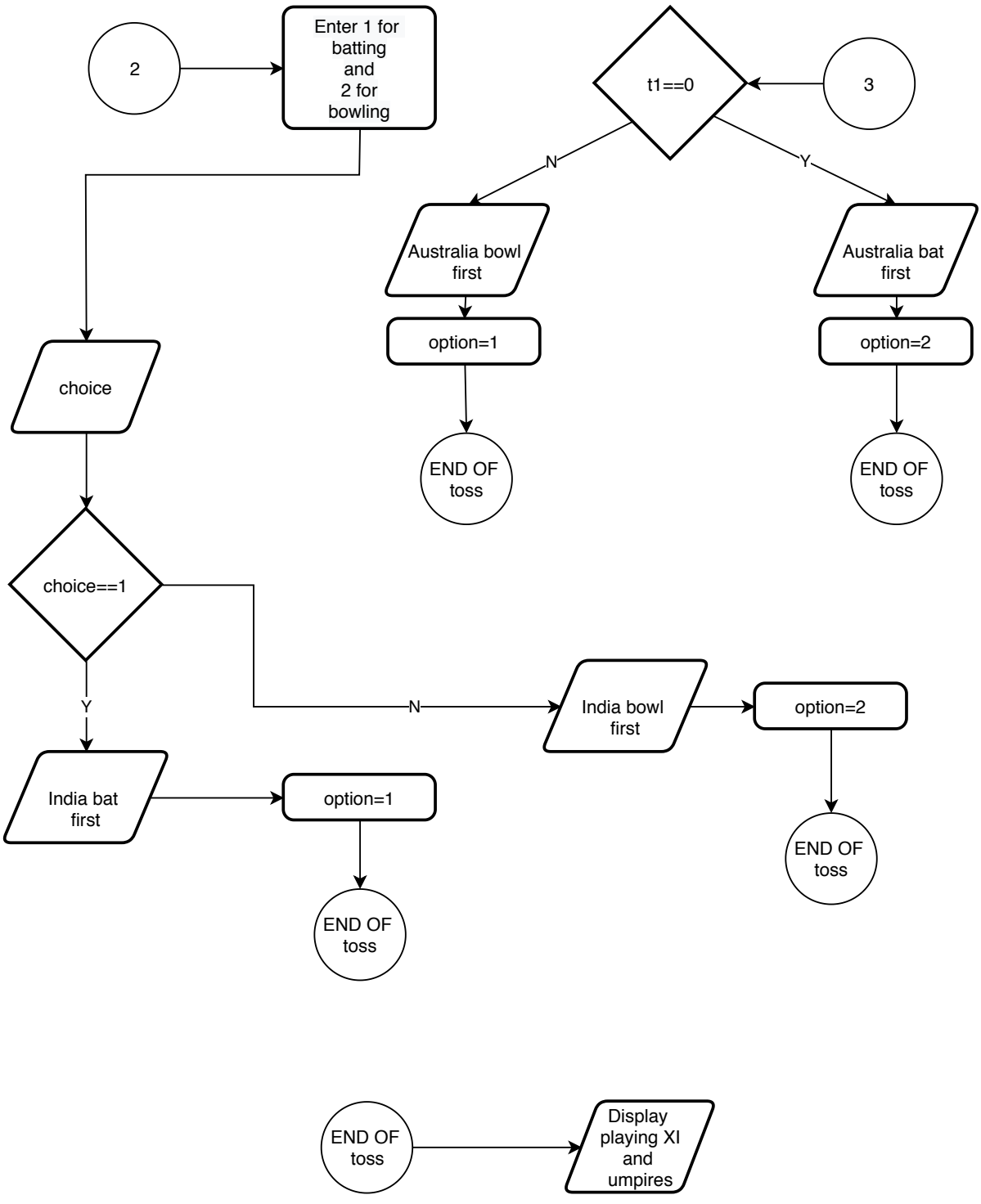
2
Enter 1 for batting and 2 for bowling
t1==0
3
N
Y
Australia bowl first
Australia bat first
option=1
option=2
END OF toss
END OF toss
choice
choice==1
Y
N
India bowl first
option=2
India bat first
option=1
END OF toss
END OF toss
END OF toss
Display playing XI and umpires

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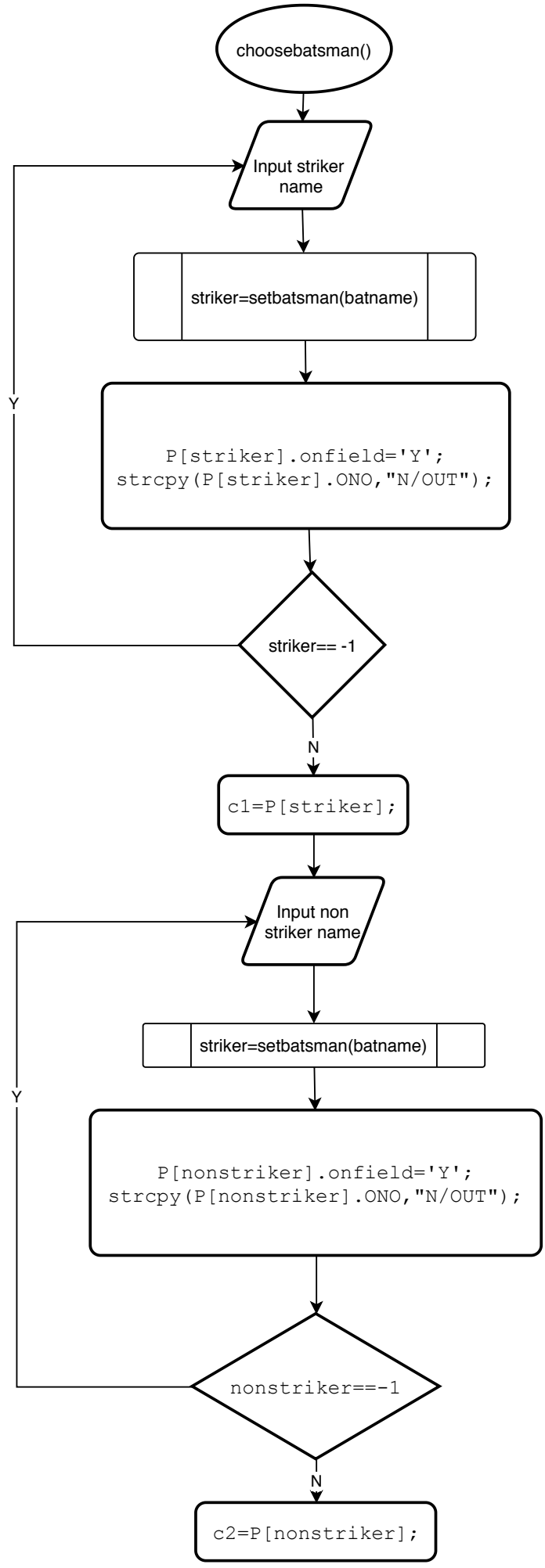
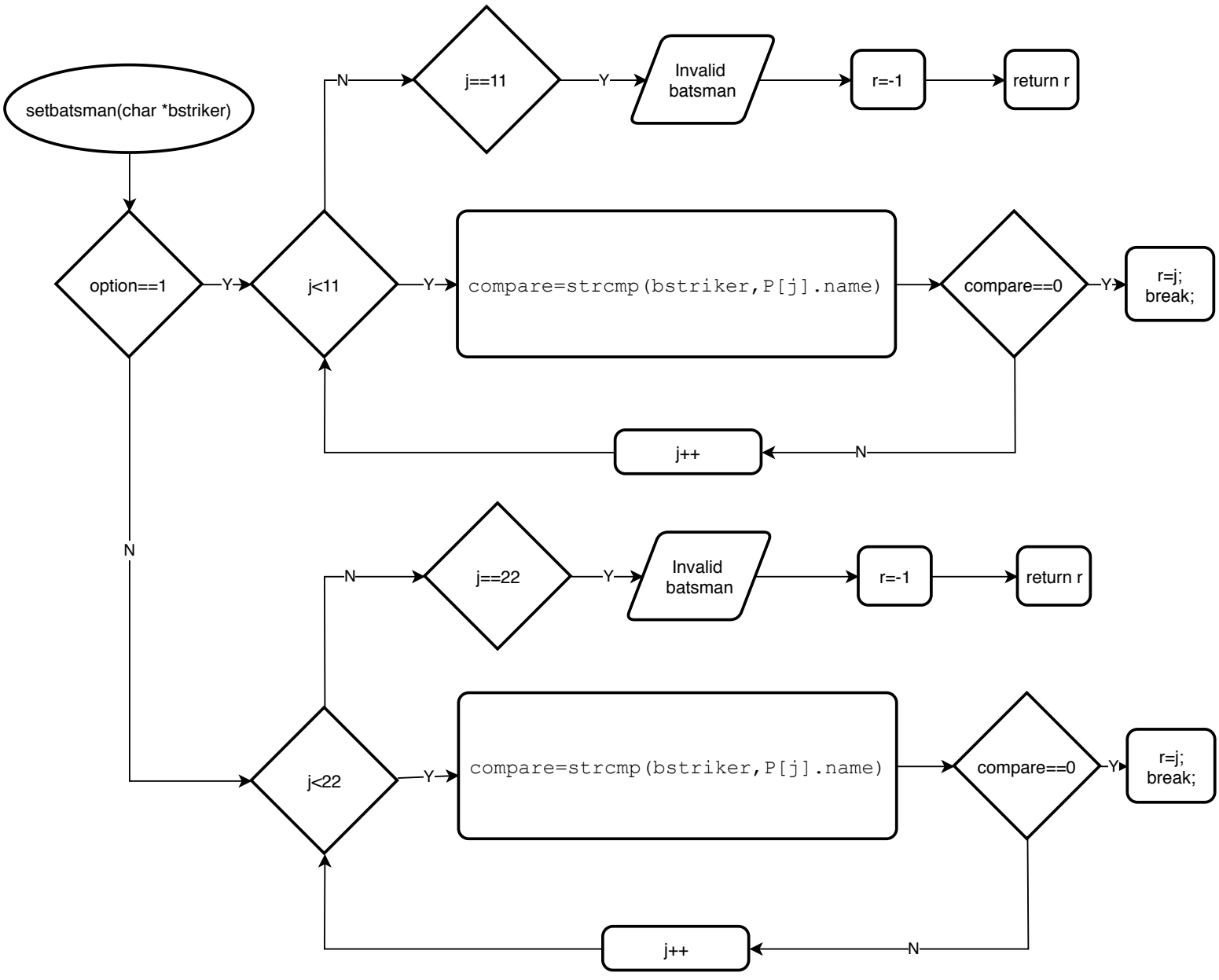
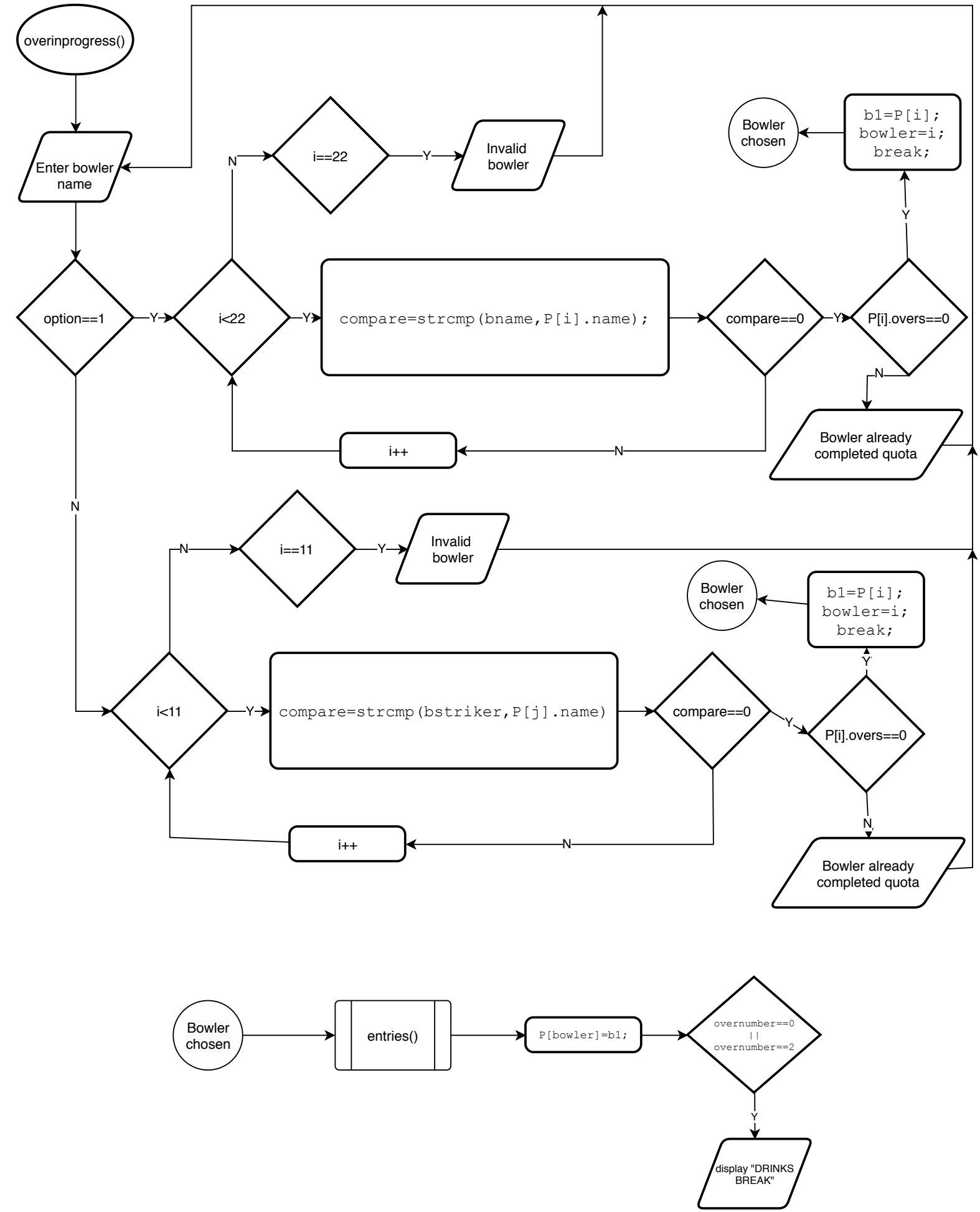

choosebatsman()
Input striker name
striker=setbatsman(batname)
P[striker].onfield='Y';
strcpy(P[striker].ONO,"N/OUT");
striker== -1
Y
N
c1=P[striker];
Input non striker name
striker=setbatsman(batname)
P[nonstriker].onfield='Y';
strcpy(P[nonstriker].ONO,"N/OUT");
nonstriker==-1
Y
N
c2=P[nonstriker];

,


setbatsman(char *bstriker)
option==1
Y
N
j<11
Y
N
j==11
Y
Invalid batsman
r=-1
return r
compare=strcmp(bstriker,P[j].name)
compare==0
Y
r=j; break;
N
j++
N
j<22
Y
N
j==22
Y
Invalid batsman
r=-1
return r
compare=strcmp(bstriker,P[j].name)
compare==0
Y
r=j; break;
N
j++

,


overinprogress()
Enter bowler name
option==1
Y
i<22
Y
N
i==22
Y
Invalid bowler
compare=strcmp(bname,P[i].name);
compare==0
Y
P[i].overs==0
Y
b1=P[i];
bowler=i;
break;
Bowler chosen
N
Bowler already completed quota
i++
N
N
i==11
N
Y
Invalid bowler
i<11
Y
compare=strcmp(bstriker,P[j].name)
compare==0
Y
P[i].overs==0
Y
b1=P[i];
bowler=i;
break;
Bowler chosen
N
Bowler already completed quota
i++
N
Bowler chosen
entries()
P[bowler]=b1;
overnumber==0
||
overnumber==2
Y
display "DRINKS BREAK"

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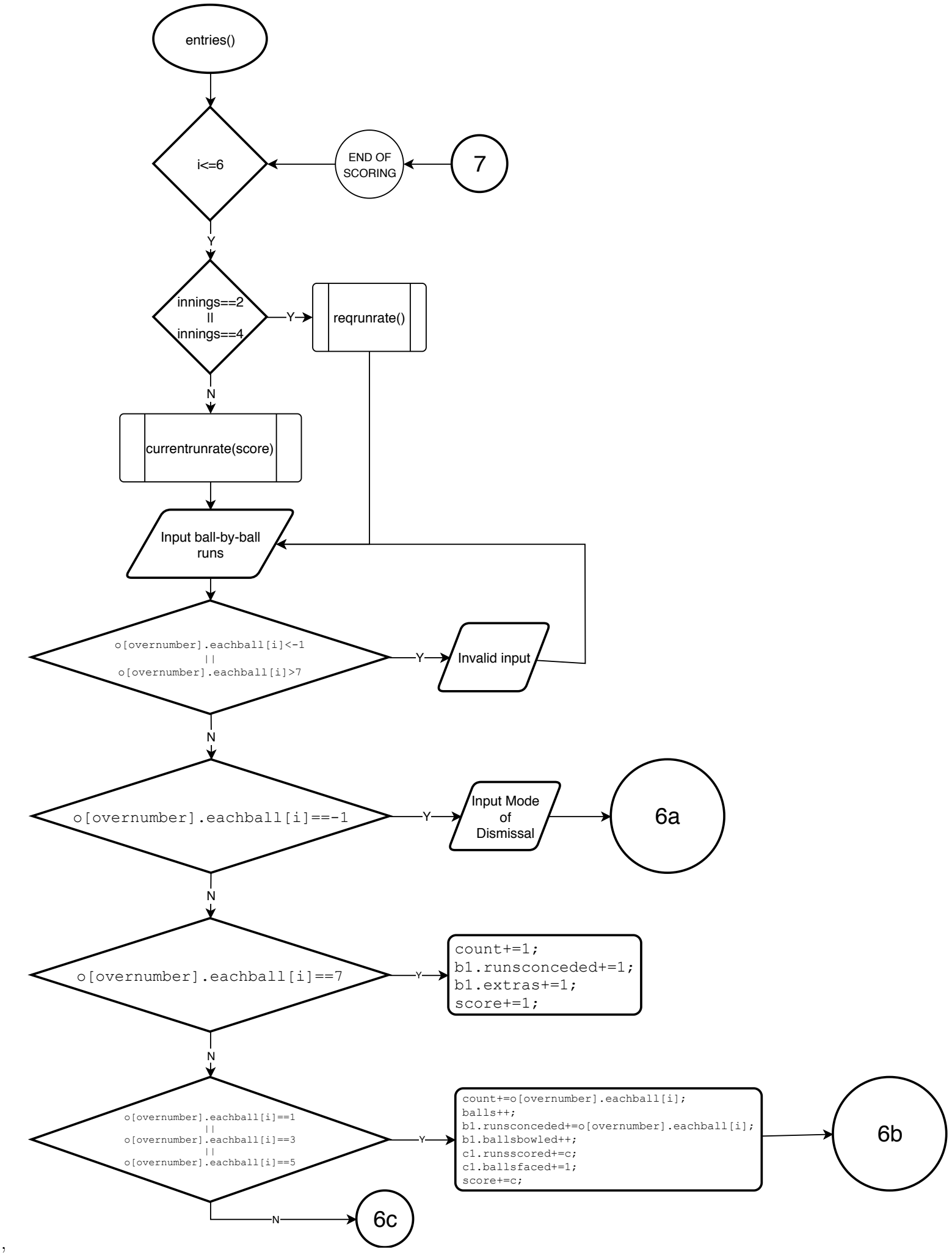
entries()
i<=6
END OF SCORING
7
Y
innings==2 || innings==4
Y
reqrunrate()
N
currentrunrate(score)
Input ball-by-ball runs
o[overnumber].eachball[i]<-1 || o[overnumber].eachball[i]>7
Y
Invalid input
N
o[overnumber].eachball[i]==-1
Y
Input Mode of Dismissal
6a
N
o[overnumber].eachball[i]==7
Y
count+=1;
b1.runsconceded+=1;
b1.extras+=1;
score+=1;
N
o[overnumber].eachball[i]==1 || o[overnumber].eachball[i]==3 || o[overnumber].eachball[i]==5
Y
count+=o[overnumber].eachball[i];
balls++;
b1.runsconceded+=o[overnumber].eachball[i];
b1.ballsbowled++;
c1.runsscored+=c;
c1.ballsfaced+=1;
score+=c;
6b
N
6c

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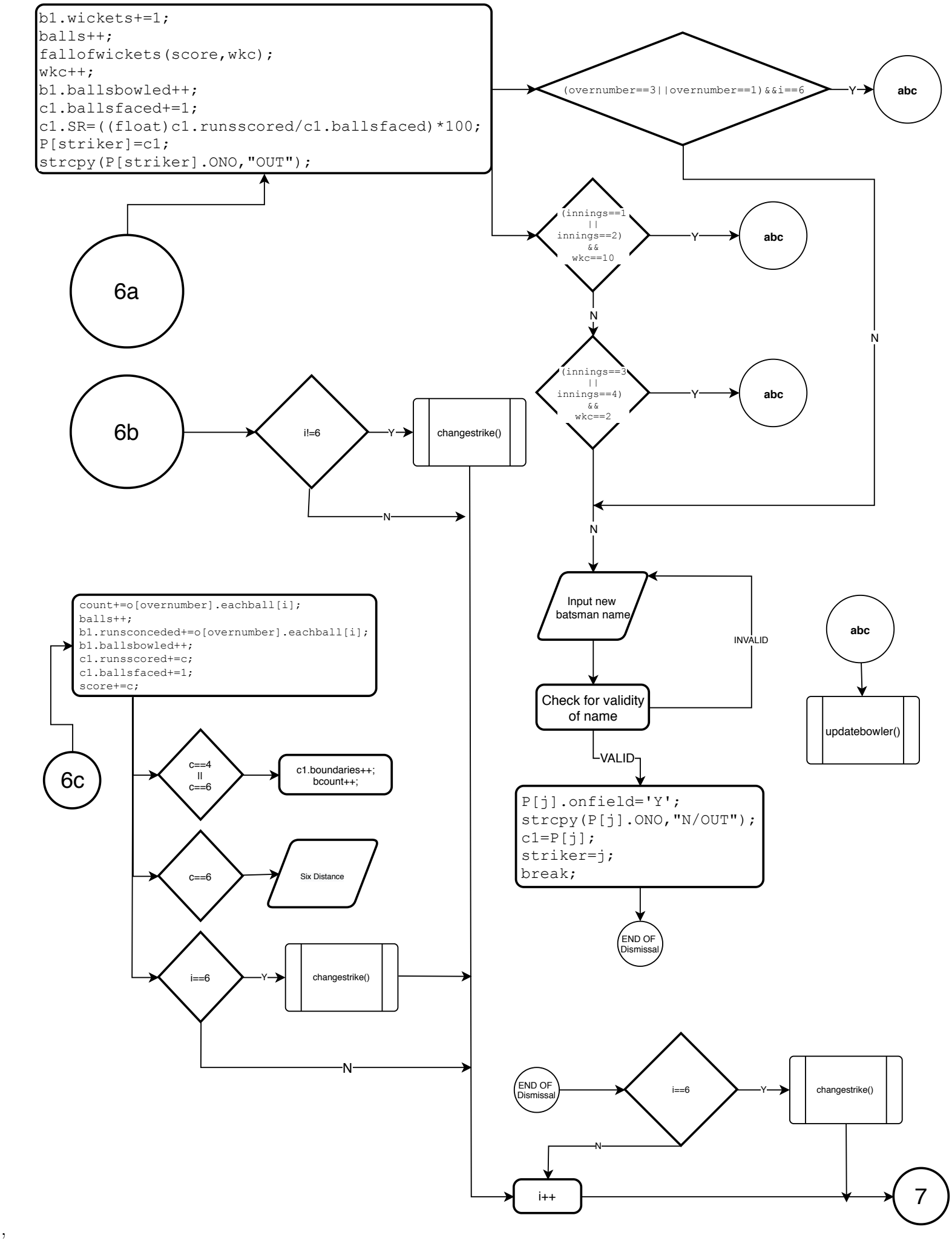
b1.wickets+=1;
balls++;
fallofwickets(score,wkc);
wkc++;
b1.ballsbowled++;
c1.ballsfaced+=1;
c1.SR=((float)c1.runsscored/c1.ballsfaced)*100;
P[striker]=c1;
strcpy(P[striker].ONO,"OUT");
(overnumber==3||overnumber==1)&&i==6
Y
abc
N
6a
(innings==1 || innings==2) && wkc==10
Y
abc
N
(innings==3 || innings==4) && wkc==2
Y
abc
N
6b
i!=6
Y
changestrike()
N
N
Input new batsman name
INVALID
Check for validity of name
VALID
abc
updatebowler()
P[j].onfield='Y';
strcpy(P[j].ONO,"N/OUT");
c1=P[j];
striker=j;
break;
END OF Dismissal
count+=o[overnumber].eachball[i];
balls++;
b1.runsconceded+=o[overnumber].eachball[i];
b1.ballsbowled++;
c1.runsscored+=c;
c1.ballsfaced+=1;
score+=c;
6c
c==4 || c==6
c1.boundaries++;
bcount++;
c==6
Six Distance
i==6
Y
changestrike()
N
END OF Dismissal
i==6
Y
changestrike()
N
i++
7

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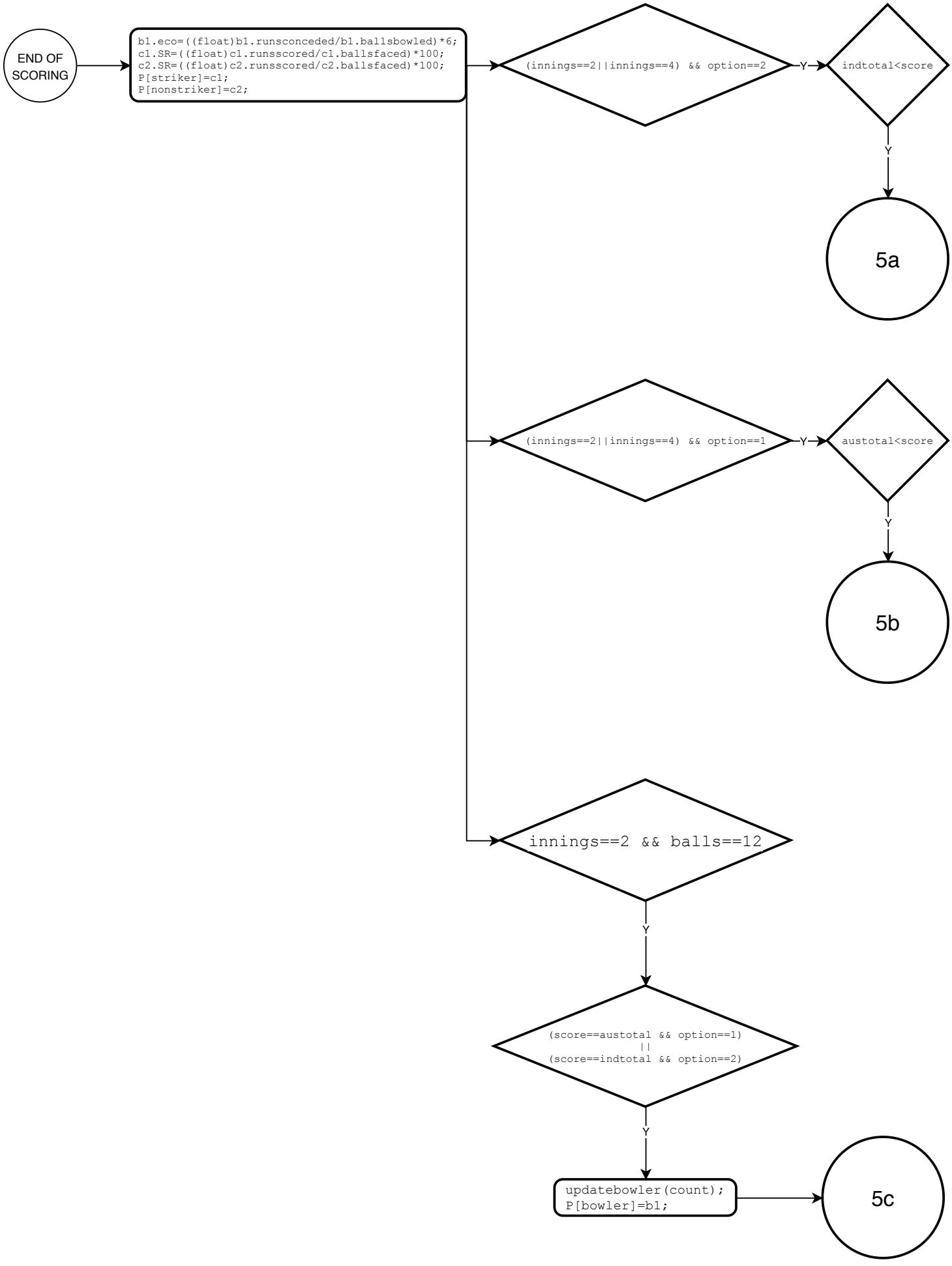
END OF SCORING
b1.eco=((float)b1.runsconceded/b1.ballsbowled)*6;
c1.SR=((float)c1.runsscored/c1.ballsfaced)*100;
c2.SR=((float)c2.runsscored/c2.ballsfaced)*100;
P[striker]=c1;
P[nonstriker]=c2;
(innings==2||innings==4) && option==2
Y
indtotal<score
Y
5a
(innings==2||innings==4) && option==1
Y
austotal<score
Y
5b
innings==2 && balls==12
Y
(score==austotal && option==1)
||
(score==indtotal && option==2)
Y
updatebowler(count);
P[bowler]=b1;
5c

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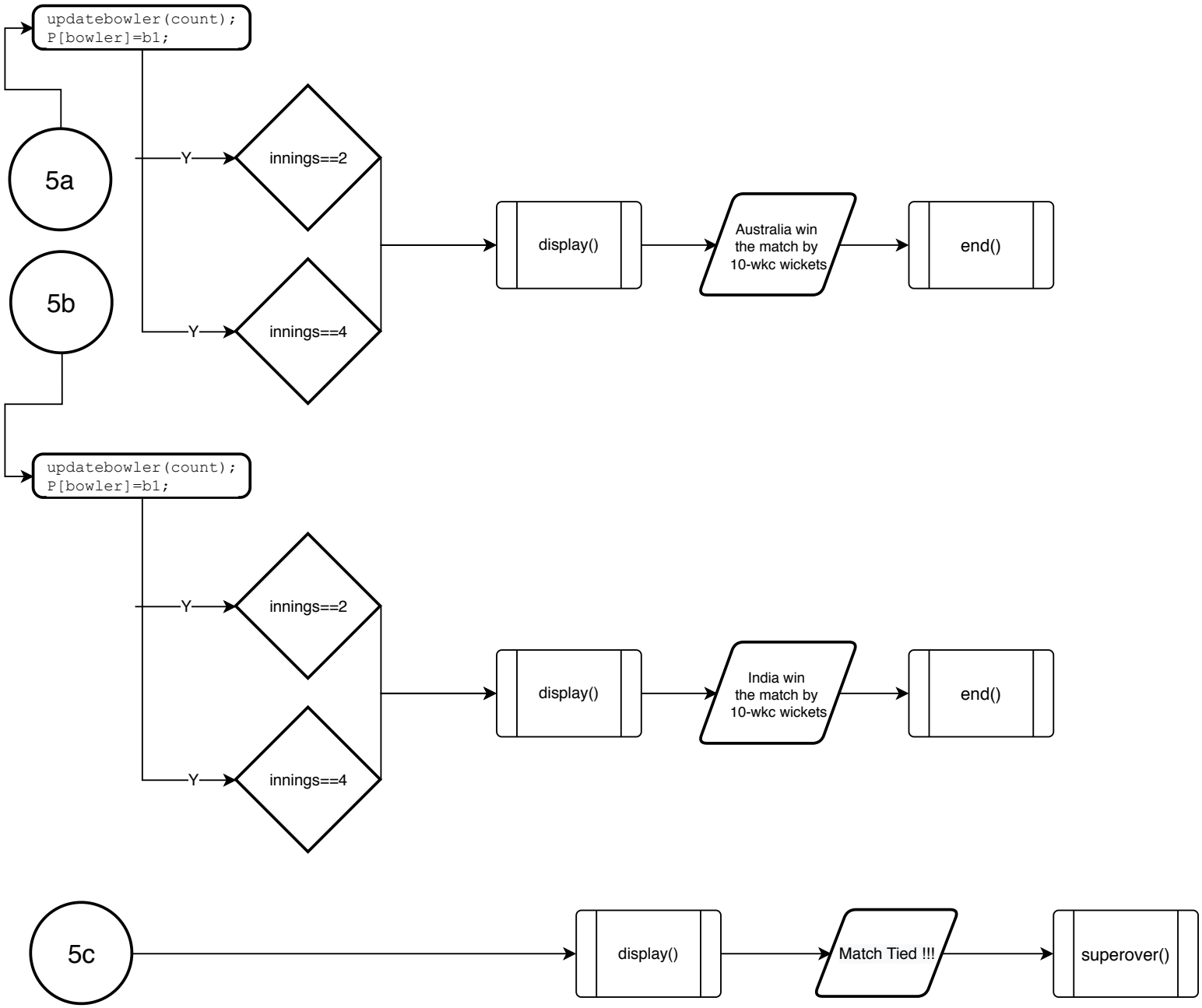
updatebowler(count);
P[bowler]=b1;
5a
Y
innings==2
5b
Y
innings==4
display()
Australia win
the match by
10-wkc wickets
end()
updatebowler(count);
P[bowler]=b1;
Y
innings==2
Y
innings==4
display()
India win
the match by
10-wkc wickets
end()
5c
display()
Match Tied !!!
superover()

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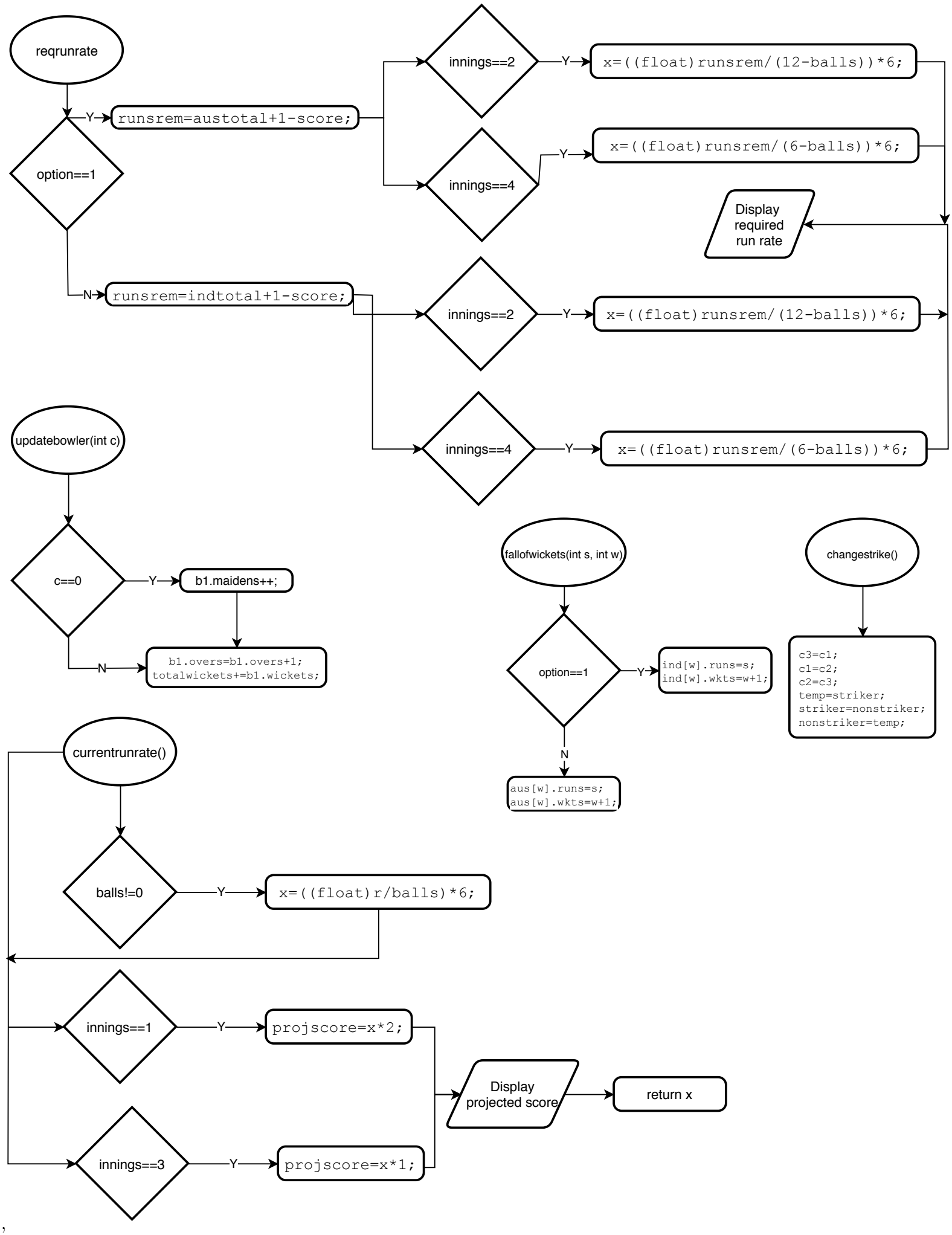
reqrunrate
option==1
Y
runsrem=austotal+1-score;
N
runsrem=indtotal+1-score;
innings==2
Y
x=((float)runsrem/(12-balls))*6;
innings==4
Y
x=((float)runsrem/(6-balls))*6;
Display required run rate
innings==2
Y
x=((float)runsrem/(12-balls))*6;
innings==4
Y
x=((float)runsrem/(6-balls))*6;
updatebowler(int c)
c==0
Y
b1.maidens++;
N
b1.overs=b1.overs+1;
totalwickets+=b1.wickets;
fallofwickets(int s, int w)
option==1
Y
ind[w].runs=s;
ind[w].wkts=w+1;
N
aus[w].runs=s;
aus[w].wkts=w+1;
changestrike()
c3=c1;
c1=c2;
c2=c3;
temp=striker;
striker=nonstriker;
nonstriker=temp;
currentrunrate()
balls!=0
Y
x=((float)r/balls)*6;
innings==1
Y
projscore=x*2;
innings==3
Y
projscore=x*1;
Display projected score
return x

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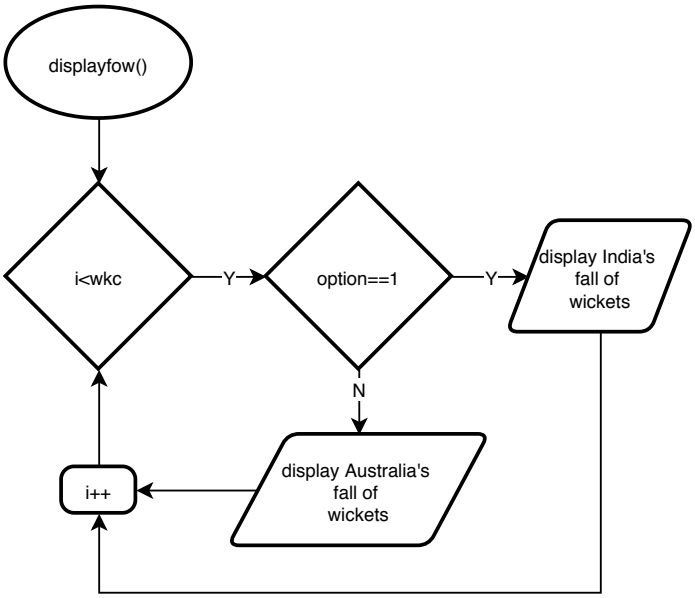
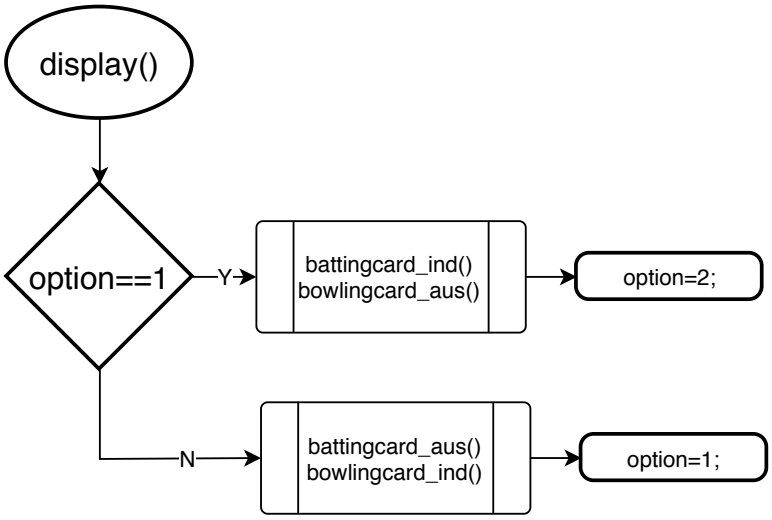
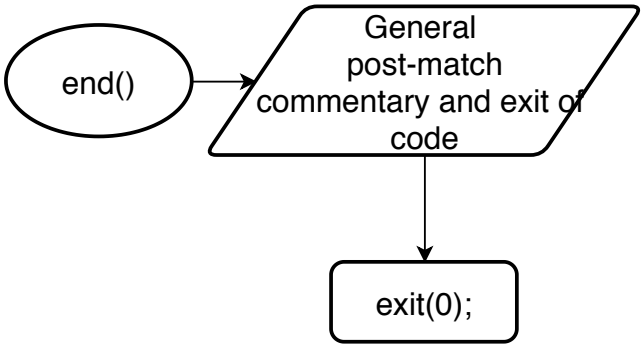
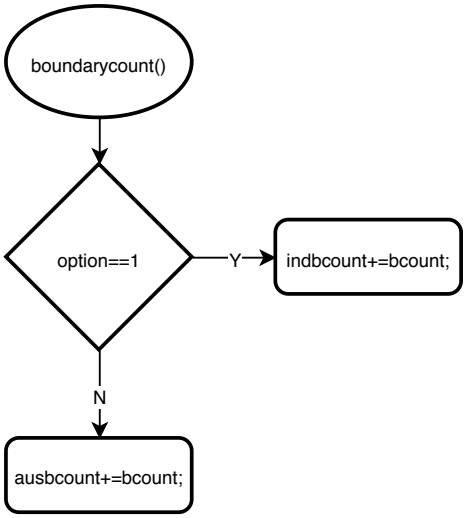
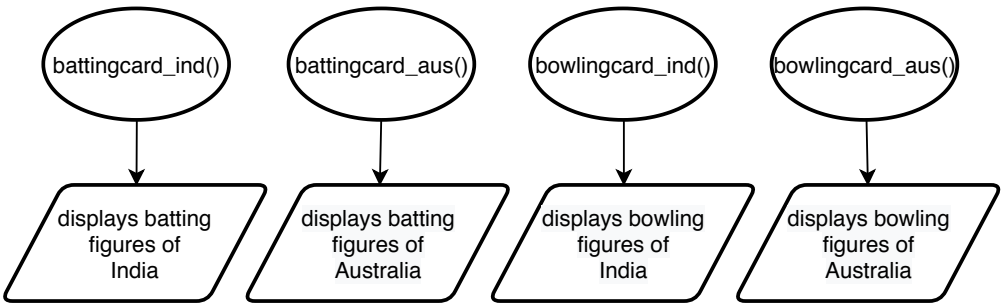

displayfow()
i<wkc
Y
option==1
Y
display India's fall of wickets
N
display Australia's fall of wickets
i++


display()
option==1
Y
battingcard_ind()
bowlingcard_aus()
option=2;
N
battingcard_aus()
bowlingcard_ind()
option=1;


end()
General post-match commentary and exit of code
exit(0);


boundarycount()
option==1
Y
indbcount+=bcount;
N
ausbcount+=bcount;


battingcard_ind()
battingcard_aus()
bowlingcard_ind()
bowlingcard_aus()
displays batting figures of India
displays batting figures of Australia
displays bowling figures of India
displays bowling figures of Australia

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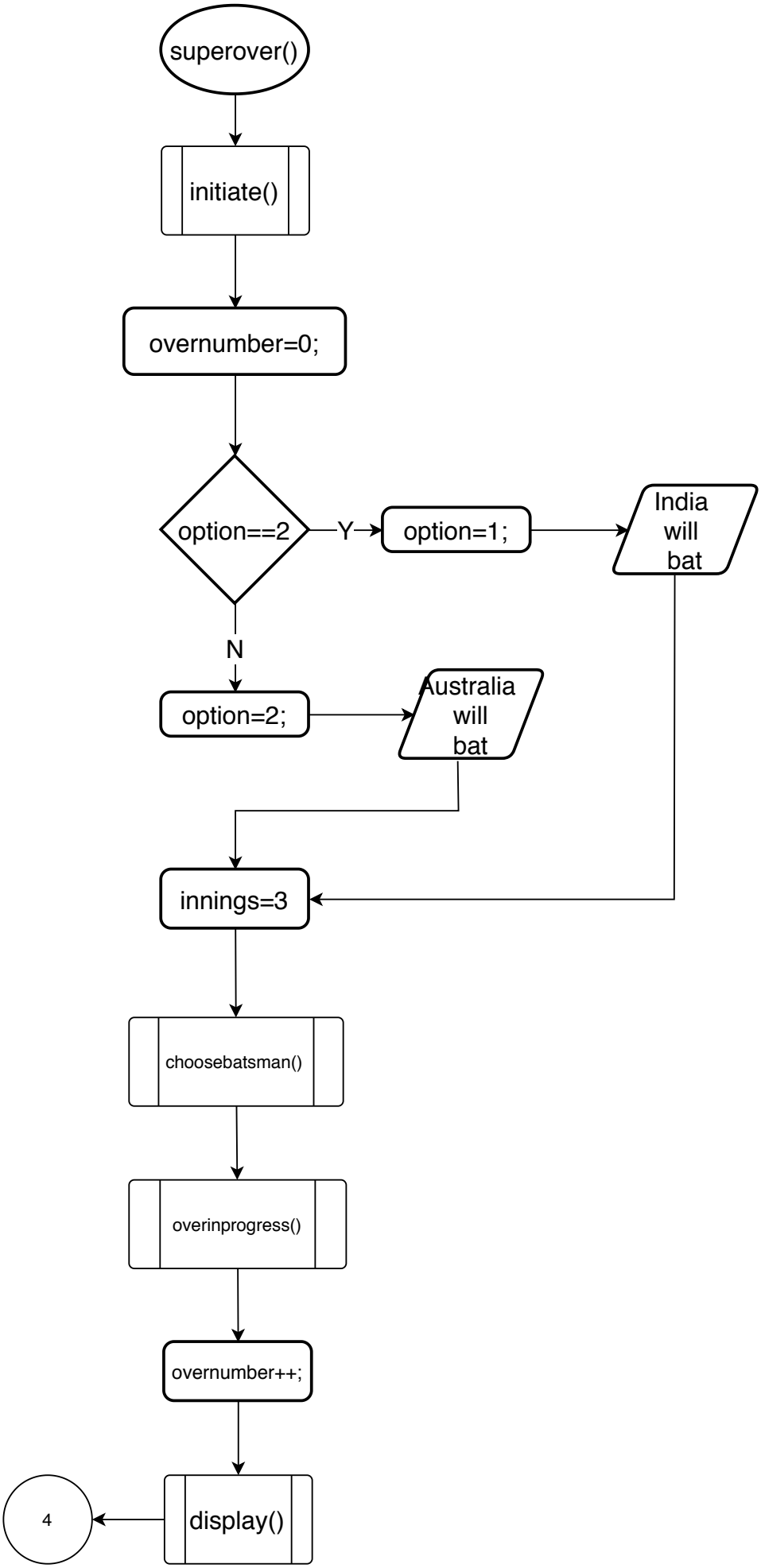
superover()
initiate()
overnumber=0;
option==2
Y
option=1;
India will bat
N
option=2;
Australia will bat
innings=3
choosebatsman()
overinprogress()
overnumber++;
display()
4

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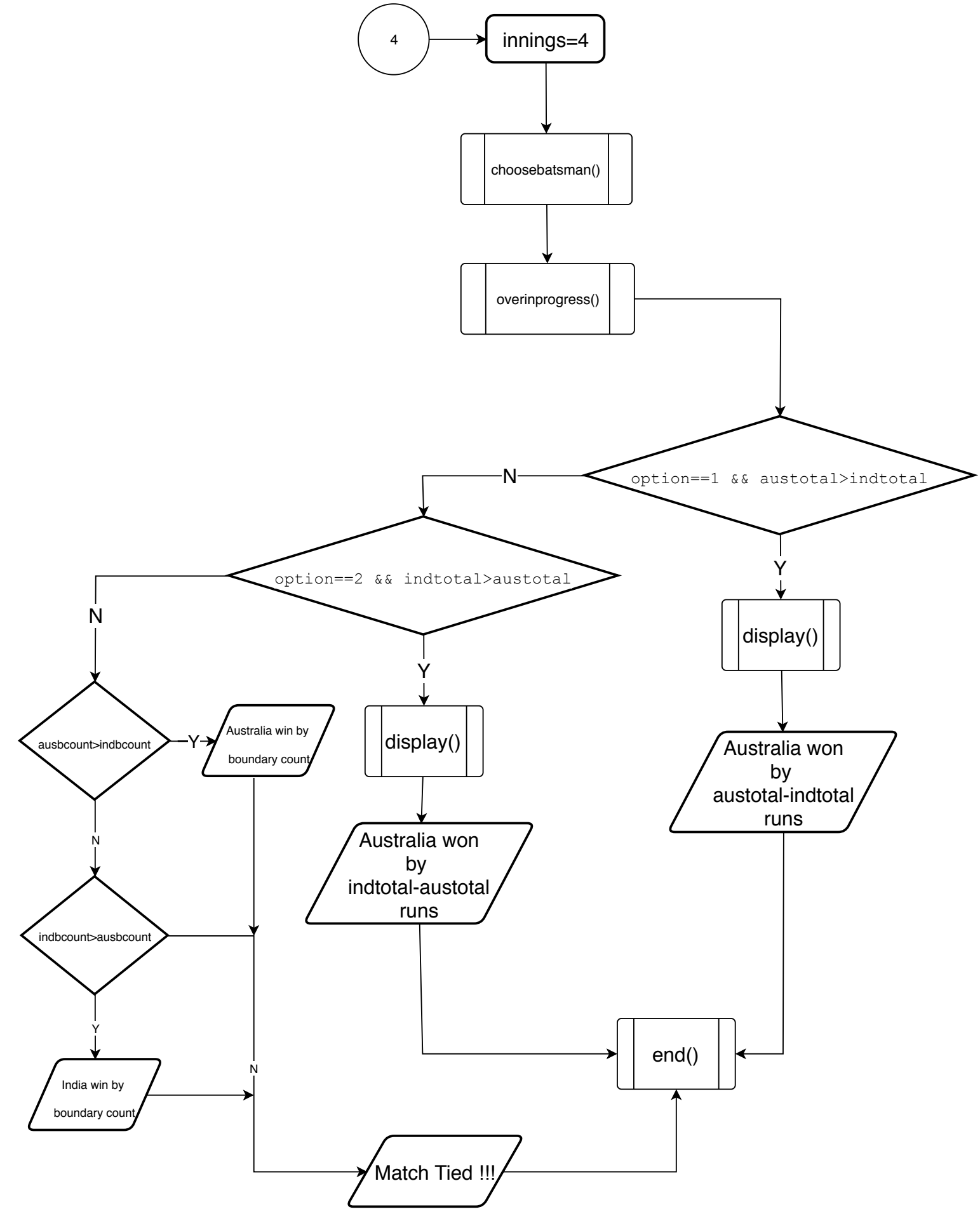
4
innings=4
choosebatsman()
overinprogress()
option==1 && austotal>indtotal
N
Y
display()
Australia won by austotal-indtotal runs
option==2 && indtotal>austotal
N
Y
display()
Australia won by indtotal-austotal runs
ausbcount>indbcount
Y
Australia win by boundary count
N
indbcount>ausbcount
Y
India win by boundary count
N
Match Tied !!!
end()

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4 Source Code

This section of the report presents the source codes of the features mentioned in the abstract.

1. main.c

"This is the main code"

```
#include<stdio.h>
#include<string.h>
#include<ctype.h>
#include<conio.h>
#include<time.h>
#include<stdlib.h>
void inititate(); void functoss(); int setbatsman(char *);
void choosebatsman(); void boundarycount(); void overinprogress();
void entries(); void update(int);
void changestrike(); void reqrunrate(); void currentrunrate(int);
void fallofwickets(int,int); void displayfow(); void venuedetails();
void battingcard_aus(); void battingcard_ind(); void bowlingcard_aus();
void bowlingcard_ind(); void display(); void superover(); void end();
int choice,t1,overnumber=0,striker,nonstriker,bowler,option,temp,austotal=0,
indtotal=0,innings,score,total,wkc,bcount,
indbcount=0,ausbcount=0,balls;
float rrr;//variable to store current run rate
struct player//structure to store player information
{
    char name[25],onfield,ONO[6],MOD[20];
    int overs,extras,wickets,maidens,runsconceded,runsscored,ballsfaced,
        boundaries,ballsbowled;
    float eco,SR;
}P[22],c1,c2,c3,b1;
struct over//structure to store runs/wickets ball by ball
{
    int eachball[7];
}o[4];
```

```
struct fow //structure to store fall of wickets
{
    int runs,wkts;
}ind[10],aus[10];
struct details //structure to store venue details
{
char city[15],stadium[50],pitch[25];
    int seatcap,matplay,winsb1,winsb2,draws,avgblength;
};
void initiate()//function to initiate player details at the start of normal
                match and super over
{
    int i;
    strcpy(P[0].name,"Rohit Sharma");
    strcpy(P[1].name,"Shikhar Dhawan");
    strcpy(P[2].name,"Virat Kohli(c)");
    strcpy(P[3].name,"Shreyas Iyer");
    strcpy(P[4].name,"MS Dhoni(wk)");
    strcpy(P[5].name,"Kedhar Jadhav");
    strcpy(P[6].name,"Hardik Pandya");
    strcpy(P[7].name,"Ravindra Jadeja");
    strcpy(P[8].name,"Bhuvneshwar Kumar");
    strcpy(P[9].name,"Kuldeep Yadav");
    strcpy(P[10].name,"Jasprit Bumrah");
    strcpy(P[11].name,"David Warner");
    strcpy(P[12].name,"Aaron Finch");
    strcpy(P[13].name,"Usman Khawaja");
    strcpy(P[14].name,"Steven Smith(c)");
    strcpy(P[15].name,"Mathew Wade");
    strcpy(P[16].name,"Glenn Maxwell");
    strcpy(P[17].name,"Marcus Stoinis");
    strcpy(P[18].name,"Pat Cummins");
    strcpy(P[19].name,"Josh Hazlewood");
```

```
    strcpy(P[20].name,"Adam Zampa");
    strcpy(P[21].name,"Mitchell Starc");
    for(i=0;i<22;i++)
    {
        P[i].overs=P[i].ballsbowled=P[i].extras=P[i].wickets=P[i].maidens=
        P[i].runsconceded=P[i].runsscored=P[i].ballsfaced=P[i].boundaries=0;
        P[i].eco=P[i].SR=0;
        P[i].onfield='N';strcpy(P[i].ONO,"DNB");strcpy(P[i].MOD,"");
    }
}

void functoss()//function for toss
{
    char weather[10],x;
    int hour,i,toss,t,j,attendance;
    printf("\nWELCOME TO THE CricStatz MATCH SCORING SYSTEM\n");
    venuedetails();
    printf("\nENTER WEATHER CONDITIONS(SUNNY, RAINY, OVERCAST,
            WINDY,DUSTY)\n");
    scanf("\n%s",weather);
    if((strcmp(weather,"RAINY")==0)||(strcmp(weather,"rainy")==0)||
       (strcmp(weather,"Rainy")==0))
    {
        printf("\nMATCH ABANDONED DUE TO RAIN");
        exit(0);
    }

    printf("\nENTER TIME OF MATCH IN 24 HR FORMAT(EXAMPLE 1600 FOR 4PM)\n");
    scanf("\n%d",&hour);
    attendance=(rand()%10001)+30000;
    printf("\nSTEVE WAUGH : WELCOME FOLKS.");
    printf("\n                IT'S A %s DAY AND WE HAVE THE MOST AWAITED
                            2-OVER-PER-SIDE MATCH BETWEEN INDIA AND
```

```
                    AUSTRALIA AT %d HOURS.",weather,hour);
printf("\n          I'M STEVE WAUGH AND JOINING ME TODAY IN THE
                    COMMENTARY PANEL IS HARSHA BHOGLE AND
                    BRETT LEE.");
printf("\n          THE STADIUM IS PACKED WITH A CROWD OF %d,
                    WHO ARE  EAGER THAN EVER TO SEE THIS MATCH
                    GET UNDER WAY.",attendance);
printf("\n          SURE IS A DEAFENING SOUND FROM ALL THE BUZZING
                    AND VUVUZELAS !!!");
printf("\n          OVER TO BRETT NOW WHO'S GOING TO TAKE US
                    THROUGH TODAY'S SPONSORS FOR THE MATCH");
printf("\n");
printf("\nBRETT LEE : THANKS STEVE. A VERY GOOD DAY LADIES AND GENTLEMEN.
                    SUCH AN HONOUR TO SIT IN THE BOX FOR A
                    NERVE WRECKING MATCH TO FOLLOW");
printf("\n          WE'VE GOT A COUPLE OF SPONSORS FOR THIS MATCH :");
printf("\n          GLOBAL PARTNERS");
printf("\n           1. OPPO");
printf("\n           2. MRF TYRES");
printf("\n           3. EMIRATES");
printf("\n          OFFICIAL PARTNERS");
printf("\n           1. COCA-COLA");
printf("\n          CATEGORY PARTNERS");
printf("\n           1. CRICBUZZ");
printf("\n           2. DREAM11");
printf("\n");
printf("\n          IN ADDITION, CricStatz, A NEW SCORING SYSTEM FOR
                    ALL KINDS OF CRICKET MATCHES ACROSS THE GLOBE,
                    BE IT GULLY OR INTERNATIONAL,");
printf("\n          HAS OPENED UP PARTNERSHIP WITH ICC AND THEIR CEO
                    IS HERE TODAY TO WITNESS THE USE OF THE NEW
                    SYSTEM FOR THE FIRST TIME");
printf("\n          SOUNDS EXCITING !!!");
```

```
    printf("\nSTEVE WAUGH : THANK YOU SO MUCH BRETT.");
    printf("\n              DOWN ON THE PITCH IS PITCH ANALYST
                           DANNY MORRISON.");
    printf("\n              WE SHOULD BE GOING IN FOR THE TOSS SHORTLY.
                           OVER TO YOU DANNY.");
    printf("\n");
    printf("\nDANNY MORRISON : THANK YOU SO MUCH STEVE. ALONGSIDE ME
                              I'VE GOT THE INDIAN CAPTAIN VIRAT(YOU) AND
                              THE AUSTRALIAN CAPTAIN STEVEN.
                              IT'S TIME FOR TOSS.");
    printf("\n                         STEVEN'S GOT THE COIN.");
    printf("\n");
    printf("\n              TOSS");
    printf("\nCHOOSE EITHER HEADS OR TAILS");
    printf("\nENTER 0 FOR HEADS AND 1 FOR TAILS\n");
    scanf("\n%d",&toss);
    if(toss==0)
    {
        printf("\nHEADS IS THE CALL");
        printf("\n");
    }
    else
    {
        printf("\nTAILS IS THE CALL");
        printf("\n");
    }
    srand(time(0));
    t=rand()%2;

if(t!=toss)
    {
        srand(time(0));
        t1=rand()%2;
```

```
    if(t1==0)
    {    printf("\nDANNY MORRISON : AUSTRALIA HAVE WON THE TOSS AND
                                     HAVE DECIDED TO BAT FIRST");
         printf("\n                   STEVEN'S MEN WILL BE BATTING FIRST.
                                     LET'S SEE IF THEY CAN POST A
                                     COMPETITIVE TOTAL.");
         option=2;
    }
    else
    {
         printf("\nDANNY MORRISON : AUSTRALIA HAVE WON THE TOSS AND
                                     HAVE DECIDED TO BOWL FIRST");
         printf("\n                   STEVEN'S MEN WILL BE BOWLING FIRST.
                                     LET'S SEE IF THEY CAN RESTRICT THE
                                     OPPOSITION TO A LOW TOTAL");
         option=1;
    }
}
else
{
    printf("\nDANNY MORRISON : INDIA(YOU) HAVE WON THE TOSS");
    printf("\n                 VIRAT(YOU), WHAT'S YOUR DECISION.
                               DO YOU WISH TO BAT OR BOWL?");
    printf("\n");
    printf("\nENTER 1 FOR BATTING AND 2 FOR BOWLING\n");
    scanf("%d",&choice);
    if(choice==1)
    {
         printf("\nDANNY MORRISON : VIRAT'S MEN WILL BE BATTING FIRST.
                                     LET'S SEE IF THEY CAN POST A
                                     COMPETITIVE TOTAL.");
         option=1;
    }
```

```
        else
        {
            printf("\nDANNY MORRISON : VIRAT'S MEN WILL BE BOWLING FIRST.
                                        LET'S SEE IF THEY CAN RESTRICT THE
                                        OPPOSITION TO A LOW TOTAL.");
            option=2;
        }
    }
    printf("\n                    THESE ARE THE PLAYING XI OF BOTH SIDES.
                                I CAN ALREADY TELL THIS IS GONNA BE A
                                FANTASTIC CLASH OFF.
                                THE NEXT 4 OVERS WILL TESTIFY THE SAME.");
    printf("\n                    OVER TO YOU STEVE !");
    printf("\n");
    printf("\nINDIA(HOME)\t\t\t\t\t\t\tAUSTRALIA(AWAY)\n");
    for(i=0,j=11;i<11;i++,j++)
    {
        printf("\n%-22s\t\t\t\t\t\t\t%s",P[i].name,P[j].name);
    }
    printf("\n");
    printf("\nOVERS PER SIDE : %d",2);
    printf("\nONFIELD UMPIRES : BRUCE OXENFORD AND BILLY BOWDEN");
    printf("\nTHIRD UMPIRE : KUMAR DHARMASENA");
    printf("\nMATCH REFEREE : JAVAGAL SRINATH\n");
}
void venuedetails()//to display corresponding venue details
{
    FILE *fp1;
    char city[15];
    float k;
    venue_entry:
    printf("\nEnter city:");
    printf("\n1.Visakhapatnam\n2.Chennai\n3.Bengaluru\n4.Mumbai
```

```
            \n5.Hyderabad\n6.Delhi\n7.Jaipur\n8.Kolkata\n\n");
    scanf("\n%s",city);
    struct details d;
    fp1=fopen("VenueDetails.dat","r");
    if(fp1==NULL)
    {
        printf("\nFile not found");
    }

else
    {
        int z=0;
        while(fread(&d,sizeof(struct details),1,fp1))
{
   if(strcmp(d.city,city)==0)
            {
                z=1;
                printf("\nWelcome to %s Cricket Stadium!",d.stadium);
                printf("\nGeneral pitch condition : %s",d.pitch);
                printf("\nSeating Capacity : %d",d.seatcap);
                printf("\nTotal Matches Played : %d",d.matplay);
                printf("\nWins batting 1st : %d",d.winsb1);
       printf("\nWins batting 2nd : %d",d.winsb2);
                printf("\nDraws : %d",d.draws);
   printf("\nAverage boundary length : %d yards",d.avgblength);
       k = ((d.winsb1)*100.0/d.matplay);
                printf("\nPercentage wins batting first : %0.2f",k);
                printf("\n");
                break;
            }
        }
        if(z!=1)
        {
```

```
            printf("\nEnter venue from given list\n");
            goto venue_entry;
        }
    }
    fclose(fp1);
}
int setbatsman(char *bstriker)//to check validity of inputted batsmen names
{
    int r,j,compare;
    if(option==1)
    {
        for(j=0;j<11;j++)
        {
            compare=strcmp(bstriker,P[j].name);
            if(compare==0)
            {
                if(P[j].onfield=='N')
                {
                    P[j].onfield='Y';
                    strcpy(P[j].ONO,"N/OUT");
                    r=j;
                    break;
                }
                else
                {
                    printf("\nBatsman already dismissed/on field");
                    r=-1;
                    break;
                }
            }
        }
        if(j==11)
        {
```

```
            printf("\nInvalid batsman name");
            r=-1;
        }
    }
    else
    {
        for(j=11;j<22;j++)
        {
            compare=strcmp(bstriker,P[j].name);
            if(compare==0)
            {
                if(P[j].onfield=='N')
                {
                    P[j].onfield='Y';
                    strcpy(P[j].ONO,"N/OUT");
                    r=j;
                    break;
                }
                else
                {
                    printf("\nBatsman already dismissed/onfield");
                    r=-1;
                    break;
                }
            }
        }
        if(j==22)
        {
             printf("\nInvalid Batsman Name");
            r=-1;
        }
    }
    return r;
```

```
}
void choosebatsman()//to input batsmen names
{
    char batname[25];
  input:
    printf("\nEnter Striker name:");
    scanf("\n%[^\n]s",batname);
    striker=setbatsman(batname);
    P[striker].onfield='Y';
    strcpy(P[striker].ONO,"N/OUT");
    if(striker==-1)
        goto input;
    else
        c1=P[striker];
    input1:
        printf("\nEnter non striker name:");
        scanf("\n%[^\n]s",batname);
        nonstriker=setbatsman(batname);
        P[nonstriker].onfield='Y';
        strcpy(P[nonstriker].ONO,"N/OUT");
    if(nonstriker==-1)
        goto input1;
    else
        c2=P[nonstriker];
}
void boundarycount()//function to calculate boundary count
{
    if(option==1)
        indbcount+=bcount;
    else
        ausbcount+=bcount;
}
void overinprogress()//function to choose bowler for a particular over
```

```
                    and call entries() function
{
    char bname[25];
    input:
    printf("\nEnter new bowler name:");
    scanf("\n%[^\n]s",bname);
    int i,compare;
    if(option==1)
    {
        for(i=11;i<22;i++)
    {
        compare=strcmp(bname,P[i].name);
        if(compare==0)
        {
            if(P[i].overs==0)
            {
                b1=P[i];
                bowler=i;
                break;
            }
            else
            {
                printf("\nBowler already completed quota of overs");
                goto input;
            }
        }
    }
    if(i==22)
    {
        printf("\nInvalid bowler name");
        goto input;
    }
    }
```

```
    else
    {
        for(i=0;i<11;i++)
        {
            compare=strcmp(bname,P[i].name);
            if(compare==0)
            {
                if(P[i].overs==0)
                {
                    b1=P[i];
                    bowler=i;
                    break;
                }
                else
                {
                    printf("\nBowler already completed quota of overs");
                    goto input;
                }
            }
        }
        if(i==11)
        {
            printf("\nInvalid bowler name");
            goto input;
        }
    }
    entries();
    P[bowler]=b1;
    if(overnumber==0||overnumber==2)
    {
        printf("\n\t\t\t\tDRINKS BREAK");
    }
}
```

```
void entries()//function to record and store action of every ball
{
    int count=0,i=1,j,compare,c,x;
    char bstriker[25];
    while(i<=6)
    {
        if(innings==2||innings==4)
            reqrunrate();
        else
            currentrunrate(score);
        printf("\nOn strike:%s",c1.name);
        input:
        printf("\nBall No %d:",i);
        scanf("%d",&o[overnumber].eachball[i]);
        c=o[overnumber].eachball[i];
        if((o[overnumber].eachball[i]<-1)||(o[overnumber].eachball[i]>7))
           {
               printf("\nInvalid input");
               goto input;
           }
        else if(o[overnumber].eachball[i]==-1)
           {
               printf("\nENTER MODE OF DISMISSAL IN SPECIFIED FORMAT");
               printf("\nIf caught by a player,
                        enter C(fielder's first/last name)
                       B(bowler's first/last name)");
               printf("\nIf caught leg before wicket,
                        enter lbw(bowler's first/last name)");
               printf("\nIf bowled, enter B(bowler's first/last name)");
               printf("\nIf hit wicket, enter \"H/W\"");

               printf("\nIf stumped, enter stmpd
                         (wicket keeper's first/last name)");
```

```
scanf("\n%[^\n]s",c1.MOD);
b1.wickets+=1;
balls++;
fallofwickets(score,wkc);
wkc++;
b1.ballsbowled++;
c1.ballsfaced+=1;
printf("\n%s HAS BEEN DISMISSED BY %s FOR%d(%d)",
        c1.name,b1.name,c1.runsscored,c1.ballsfaced);
c1.SR=((float)c1.runsscored/c1.ballsfaced)*100;
strcpy(c1.ONO,"OUT");
P[striker]=c1;
if(overnumber==3&&i==6)
{
    i++;
    goto abc1;
}
if(overnumber==1&&i==6)
{
    i++;
    goto abc;
}
if(wkc==10)//general case
{
    if(innings==1)
     {   i++;
         goto abc;
     }
    else
    {
         i++;
         goto abc1;
    }
```

```
}
 if((innings==3||innings==4)&& i==6)//for super over
 {
      i++;
      goto abc1;
 }
 if((innings==3||innings==4) && i!=6 && wkc==2)
 {
      if(innings==3)
      {
           i++;
           goto abc;
      }
      if(innings==4)
      {
           i++;
           goto abc1;
      }
 }
input1:
printf("\nEnter new batsman:");
scanf("\n%[^\n]s",bstriker);
x=setbatsman(bstriker);
if(x==-1)
 goto input1;
else
{
     c1=P[x];
     striker=x;
}
if(i==6)
 {
      changestrike();
```

```
            }
           i++;
       }
    else  if(o[overnumber].eachball[i]==7)
        {
            count+=1;
            b1.runsconceded+=1;
            b1.extras+=1;
            score+=1;
        }
    else  if(o[overnumber].eachball[i]==1||o[overnumber].eachball[i]==3
            ||o[overnumber].eachball[i]==5)
        {
            count+=o[overnumber].eachball[i];
            balls++;
            b1.runsconceded+=o[overnumber].eachball[i];
            b1.ballsbowled++;
            c1.runsscored+=c;
            c1.ballsfaced+=1;
            score+=c;
            if(i!=6)
            {
                changestrike();
            }
            i++;
        }
    else
        {
            count+=o[overnumber].eachball[i];
            balls++;
            b1.runsconceded+=o[overnumber].eachball[i];
            b1.ballsbowled++;
            c1.runsscored+=c;
```

```
        c1.ballsfaced+=1;
        score+=c;
        if(c==4||c==6)
        {
            c1.boundaries++;
            bcount++;
        }
        if(c==6)
        {
             int dist=(rand()%31)+80;
             printf("\nHARSHA BHOGLE : GOING GOING GONE !!!");
             printf("\nSix Distance:%d metres",dist);
        }
        if(c==4)
        printf("\nHARSHA BHOGLE : THE BALL HAS FOUND THE FENCE!!!");
        if(i==6)
        {
             changestrike();
        }
        i++;
    }
    abc1:
    if((innings==2||innings==4) && option==2)
    {
        if(indtotal<score)
        {
             update(count);
             if(innings==2)
                  printf("\nSECOND INNINGS SCORECARD");
             if(innings==4)
                  printf("\nFOURTH INNINGS SCORECARD");
             display();
             printf("\nAUSSIES WON THE MATCH BY %d WICKETS",10-wkc);
```

```
            printf("\nSTEVE WAUGH : THERE YOU HAVE IT FOLKS.
                                    A DEFINITIVE END TO A THRILLER.
                                    AUSSIES HAVE SHOWN THAT THEY'RE
                                    INDEED THE BETTER SIDE.");
            end();
        }
    }
    if((innings==2||innings==4) && option==1)
    {
        if(austotal<score)
        {
            update(count);
            if(innings==2)
                printf("\nSECOND INNINGS SCORECARD");
            if(innings==4)
                printf("\nFOURTH INNINGS SCORECARD");
            display();
            printf("\nINDIA WON THE MATCH BY %d WICKETS",10-wkc);
            printf("\nSTEVE WAUGH : THERE YOU HAVE IT FOLKS.
                                    A DEFINITIVE END TO A THRILLER.
                                    INDIA HAVE SHOWN THAT THEY'RE
                                    INDEED THE BETTER SIDE.");
            end();
        }
    }
    if(innings==2&&(balls==12||wkc==10))
    {
        if((score==austotal && option==1)||(score==indtotal &&
            option==2))
        {
            update(count);
            printf("\nSECOND INNINGS SCORECARD");
            display();
```

```
                    printf("\nMATCH TIED !");
                    printf("\nHARSHA BHOGLE : WE'RE HEADING INTO SUPEROVER
                                                SHORTLY. BOY THIS IS
                                                GOING TO BE A REALLY EXCITING
                                                MATCH.A MEMORABLE ONE FOR THE
                                                FANS WATCHING GLOBALLY
                                                ESPECIALLY.");
                    printf("\n                  THIS IS THE FIRST TIME
                                                INDIA AND AUSTRALIA ARE
                                                HEADING INTO SUPEROVER IN
                                                THE HISTORY OF THE GAME !!!");
                    printf("\n                  ANOTHER 10 MINUTES AND
                                                WE'LL HAVE A DEFINITIVE
                                                WINNER.");
                    superover();
                }
            }
             if((innings==2&&wkc==10)||(innings==4&&wkc==2))
                goto abc;
    }
    abc:
    update(count);
}
void update(int c)//to update figures of bowler
{
    b1.eco=((float)b1.runsconceded/b1.ballsbowled)*6;
    if(c1.ballsfaced!=0)
       c1.SR=((float)c1.runsscored/c1.ballsfaced)*100;
    if(c2.ballsfaced!=0)
       c2.SR=((float)c2.runsscored/c2.ballsfaced)*100;
    P[striker]=c1;
    P[nonstriker]=c2;
    if(b1.ballsbowled==6)
```

```
    {
        if(c==0)
            b1.maidens++;
        b1.overs++;
    }
    P[bowler]=b1;
}
void changestrike()//function to interchange striker
                    and non-striker as per requirement
{
    c3=c1;
    c1=c2;
    c2=c3;
    temp=striker;
    striker=nonstriker;
    nonstriker=temp;
}
void reqrunrate()//function to calculate required run rate
{
    int runsrem;
    float x;

if(option==1)
    {
        runsrem=austotal+1-score;
        if(innings==2)
        x=((float)runsrem/(12-balls))*6;
        if(innings==4)
        x=((float)runsrem/(6-balls))*6;
    }
    else
    {
        runsrem=indtotal+1-score;
```

```
        if(innings==2)
        x=((float)runsrem/(12-balls))*6;
        if(innings==4)
        x=((float)runsrem/(6-balls))*6;
    }
    printf("\nRequired Run Rate:%0.2f",x);
}
void currentrunrate(int r)//function to calculate current run rate
{
    float x=0;
    int projscore;
    if(balls!=0)
    x=((float)r/balls)*6;
    if(innings==1)
    projscore=x*2;
    if(innings==3)
        projscore=x*1;
    printf("\nProjected Score:%d",projscore);
}
void fallofwickets(int s,int w)//function to store fall of wickets
                                in structure declared above
{
    if(option==1)
    {
        ind[w].runs=s;
        ind[w].wkts=w+1;
    }
    else
    {
        aus[w].runs=s;
        aus[w].wkts=w+1;
    }
}
```

```
void displayfow()//function to display fall of wickets
                  in a particular innings
{
    int i;
    printf("\nFall of wickets:");
    for(i=0;i<wkc;i++)
    {
        if(option==1)
            printf("\n%d/%d",ind[i].runs,ind[i].wkts);
        else
            printf("\n%d/%d",aus[i].runs,aus[i].wkts);
    }
}
void battingcard_ind()//function to display batting performance of India
{
    int i,j;
    printf("\nINDIA");
    printf("\n");
    printf("%-22s%-14s%-20s%-9s%-10s%-15s%s\n","NAME","DISMISSED",
        "MODE OF DISMISSAL","RUNS","BALLS","BOUNDARIES","SR");
    for(i=0,j=11;i<11;i++,j++)
    {
        total+=(P[i].runsscored+P[j].extras);
        indtotal=total;
        printf("%-22s%-14s%-20s%-9d%-10d%-15d%0.2f",P[i].name,
                P[i].ONO,P[i].MOD,P[i].runsscored,P[i].ballsfaced,
                P[i].boundaries,P[i].SR);
        printf("\n");
    }
    printf("\n%-90s%d-%d","TOTAL",indtotal,wkc);
    float crr=((float)indtotal/12)*6;
    printf("\nCurrent Run Rate:%0.2f",crr);
    boundarycount();
```

```
    printf("\nBOUNDARY COUNT:%d",indbcount);
    displayfow();
}
void battingcard_aus()//function to display batting performance of
                        Australia
{
    int i,j;
    printf("\nAUSTRALIA");
    printf("\n");
    printf("%-22s%-14s%-20s%-9s%-10s%-15s%s\n","NAME","DISMISSED",
          "MODE OF DISMISSAL","RUNS","BALLS","BOUNDARIES","SR");
    for(i=11,j=0;i<22;i++,j++)
    {
        total+=(P[i].runsscored+P[j].extras);
        austotal=total;
        printf("%-22s%-14s%-20s%-9d%-10d%-15d%0.2f",P[i].name,
                P[i].ONO,P[i].MOD,P[i].runsscored,P[i].ballsfaced,
                P[i].boundaries,P[i].SR);
        printf("\n");
    }
    printf("\n%-90s%d-%d","TOTAL",austotal,wkc);
    float crr=((float)austotal/12)*6;
    printf("\nCurrent Run Rate:%0.2f",crr);
    boundarycount();
    printf("\nBOUNDARY COUNT:%d",ausbcount);
    displayfow();
    printf("\n");
}
void bowlingcard_ind()//function to display bowling performance of India
{

    printf("\n\nINDIA");
    printf("\n");
```

```
    printf("%-22s%-10s%-18s%-12s%-12s%-11s%s\n","NAME","OVERS",
            "RUNS CONCEDED","MAIDENS","WICKETS","EXTRAS","ECO");
    int i;
    for(i=10;i>=0;i--)
    {
        printf("%-22s%-10d%-18d%-12d%-12d%-11d%0.2f",P[i].name,
                P[i].overs,P[i].runsconceded,P[i].maidens,P[i].wickets,
                P[i].extras,P[i].eco);
        printf("\n");
    }
}
void bowlingcard_aus()//function to display bowling performance of Australia
{
    printf("\n\nAUSTRALIA");
    printf("\n%-22s%-10s%-18s%-12s%-12s%-11s%s\n","NAME","OVERS",
            "RUNS CONCEDED","MAIDENS","WICKETS","EXTRAS","ECO");
    int i;
    for(i=21;i>=11;i--)
    {
        printf("%-22s%-10d%-18d%-12d%-12d%-11d%0.2f",P[i].name,P[i].overs,
                P[i].runsconceded,P[i].maidens,P[i].wickets,P[i].extras,
                P[i].eco);
        printf("\n");
    }
}
void display()//function to display innings scorecard
{
    if(option==1)
    {
        battingcard_ind();
        bowlingcard_aus();
        option=2;
    }
```

```
    else
    {
        battingcard_aus();
        bowlingcard_ind();
        option=1;
    }
}
void superover()//function for super over
{
    initiate();
    overnumber=0;
    if(option==2)
        option=1;
    else
        option=2;
    if(option==1)
        printf("\nINDIA WILL HAVE TO PAD UP AND HEAD OUT AGAIN");
    else
        printf("\nAUSTRALIA WILL HAVE TO PAD UP AND HEAD OUT AGAIN");
    innings=3;
    printf("\nSTART OF INNINGS III(Superover innings 1)");
    total=bcount=score=wkc=balls=0;
    choosebatsman();
    overinprogress();
    overnumber++;
    printf("\nTHIRD INNINGS SCORECARD\n");
    display();
    printf("\n");
    printf("\nTARGET = %d",total+1);
    printf("\n");
    if(option==2)
        printf("\nINDIA ARE GOING TO COMPLETELY RELY ON THEIR BOWLER
                NOW TO FINISH THINGS OFF");
```

```
else
    printf("\nAUSTRALIA ARE GOING TO COMPLETELY RELY ON THEIR BOWLER
            NOW TO FINISH THINGS OFF");
innings=4;
printf("\nSTART OF INNINGS IV(Superover innings 2)");
score=total=bcount=wkc=balls=0;
choosebatsman();
overinprogress();
if(option==1 && austotal>indtotal)
{
    printf("\nFOURTH INNINGS SCORECARD\n");
    display();
    printf("\nAUSTRALIA WON BY %d RUNS",austotal-indtotal);
    printf("\nSTEVE WAUGH : THERE YOU HAVE IT FOLKS.
                          A DEFINITIVE END TO A THRILLER.
                          AUSSIES HAVE SHOWN THAT THEY'RE
                          INDEED THE BETTER SIDE.");
    end();
}
else if(option==2 && indtotal>austotal)
{
    printf("\nFOURTH INNINGS SCORECARD\n");
    display();
    printf("\nINDIA WON BY %d RUNS",indtotal-austotal);
    printf("\nSTEVE WAUGH : THERE YOU HAVE IT FOLKS.
                          A DEFINITIVE END TO A THRILLER.
                          INDIA HAVE SHOWN THAT THEY'RE
                          INDEED THE BETTER SIDE.");
    end();
}
else
{
    printf("\nFOURTH INNINGS SCORECARD\n");
```

```
        display();
        if(ausbcount>indbcount)
        {
            printf("\nINDIA BOUNDARY COUNT : %d",indbcount);
            printf("\nAUSTRALIA BOUNDARY COUNT : %d",ausbcount);
            printf("\nSTEVE WAUGH : LUCK, SHEAR LUCK !!!
                                    THE LOOK ON THE INDIAN FACES
                                    SAY IT ALL. AUSSIES HAVE WON BY THE
                                    SHEAR MARGIN OF BOUNDARY COUNT.");
        }
        else if(ausbcount<indbcount)
        {
            printf("\nINDIA BOUNDARY COUNT : %d",indbcount);
            printf("\nAUSTRALIA BOUNDARY COUNT : %d",ausbcount);
            printf("\nSTEVE WAUGH : LUCK, SHEAR LUCK !!!
                                    THE LOOK ON THE AUSTRALIAN FACES
                                    SAY IT ALL. INDIA HAVE WON BY THE
                                    SHEAR MARGIN OF BOUNDARY COUNT.");
        }

else
            printf("\nMATCH TIED");
        end();
    }
}
void end()//function to display closing commentary
{
    printf("\nSTEVE WAUGH : A HUGE THANKS TO ALL OF YOU FOR JOINING US
                          ON THIS TELECAST.");
    printf("\n             A VERY BIG THANKS TO ALL OUR PARTNERS
                          FOR TODAYS'S MATCH");
    printf("\n             HOPE YOU LIKED THE NEW CricStatz SYSTEM
                          WHICH IN MY OPINION WAS FABULOUS IN ITS
```

```
                                INITIAL YEARS OF DEVELOPMENT");
    printf("\n                  ON BEHALF OF THE COMMENTARY PANEL,
                                THIS IS STEVE WAUGH SIGNING OFF
                                AND LOOKING FORWARD TO SEEING YOU
                                FOR THE NEXT MATCH.");
    printf("\n");
    printf("\n~ADIOS AMIGOS~");
    exit(0);
}
int main()
{
    initiate();
    functoss();
    innings=1;
    printf("\nSTART OF INNINGS I");
    total=bcount=score=wkc=balls=0;
    choosebatsman();
    overinprogress();
    overnumber++;
    overinprogress();
    overnumber++;
    printf("\nFIRST INNINGS SCORECARD\n");
    display();
    printf("\n");
    printf("\nTARGET = %d",total+1);
    printf("\n");
    innings=2;
    printf("\nSTART OF INNINGS II");
    score=total=bcount=wkc=balls=0;
    choosebatsman();
    overinprogress();
    overnumber++;
    overinprogress();
```

```
    if(option==1 && austotal>indtotal)
    {
        printf("\nSECOND INNINGS SCORECARD\n");
        display();
        printf("\nAUSTRALIA WON BY %d RUNS",austotal-indtotal);
        printf("\nSTEVE WAUGH : THERE YOU HAVE IT FOLKS.
                                  A DEFINITIVE END TO A THRILLER.
                                  INDIA HAVE SHOWN THAT THEY'RE
                                  INDEED THE BETTER SIDE.");
    }
    else if(option==2 && indtotal>austotal)
    {
        printf("\nSECOND INNINGS SCORECARD\n");
        display();
        printf("\nINDIA WON BY %d RUNS",indtotal-austotal );
        printf("\nSTEVE WAUGH : THERE YOU HAVE IT FOLKS.
                                  A DEFINITIVE END TO A THRILLER.
                                  AUSTRALIA HAVE SHOWN THAT THEY'RE
                                  INDEED THE BETTER SIDE.");
    }
    end();
    return 0;
}
```

2. venuedetails.c

"This is the code for displaying venue details by using concept of files"

```
#include<stdio.h>
struct details //structure to store venue details
{
        char city[15],stadium[50],pitch[25];
    int seatcap,matplay,winsb1,winsb2,draws,avgblength;
};
int main()
{
    FILE *fp1;
    int j;
    float k;
    struct details i[8] = {{"Visakhapatnam","Dr.Y.S. Rajasekhara Reddy
                            ACA-VDCA Stadium","Dry",50000,113,57,55,1,75},
                           {"Chennai","M.A.Chidambaram Stadium,Chepauk",
                            "Wet",45000,250,131,111,8,70},
                           {"Bengaluru","Chinnaswamy Stadium",
                            "Belter",50000,157,74,80,3,75},
                           {"Mumbai","Wankhede Stadium","Consistent bounce",
                            58000,300,130,151,19,76},
                           {"Hyderabad","Rajiv Gandhi International Stadium"
                            "Good for batting",55000,300,171,120,9,80},
                           {"Delhi","Feroz Shah Kotla Stadium",
                            "Good for pacers", 48000,270,135,125,10,74},
                           {"Jaipur","Sawai Mansingh Stadium",
                            "Good for spinners",30000,100,61,38,1,69},
                           {"Kolkata","Eden Gardens","Big outfield",
                            40000,225,100,120,5,74}};
    fp1=fopen("VenueDetails.dat","w");
    for(j=0;j<8;j++)
    {
```

```
        fwrite(&i[j],sizeof(struct details),1,fp1);
    }
    fclose(fp1);
    struct details d;
    fp1=fopen("VenueDetails.dat","r");
    if(fp1==NULL)
        printf("\nFile not found");
    else
    {
        while(fread(&d,sizeof(struct details),1,fp1))
        {
            printf(" \nWelcome to %s Cricket Stadium!",d.stadium);
            printf("\nPitch:%s",d.pitch);
            printf("\nSeating Capacity:%d",d.seatcap);
            printf("\nTotal Matches Played:%d",d.matplay);
            printf("\nwins batting first:%d",d.winsb1);
            printf("\nwins batting 2nd:%d",d.winsb2);
            printf("\nDraws:%d",d.draws);
            printf("\nAverage boundary length:%d yards",
                    d.avgblength);
            k = ((d.winsb1)*100.0/d.matplay);
            printf("\nPerwinsbf:%f",k);
        }
    }
    fclose(fp1);
    return 0;
}
```


,

5 Results

This section presents the snapshots of the results.

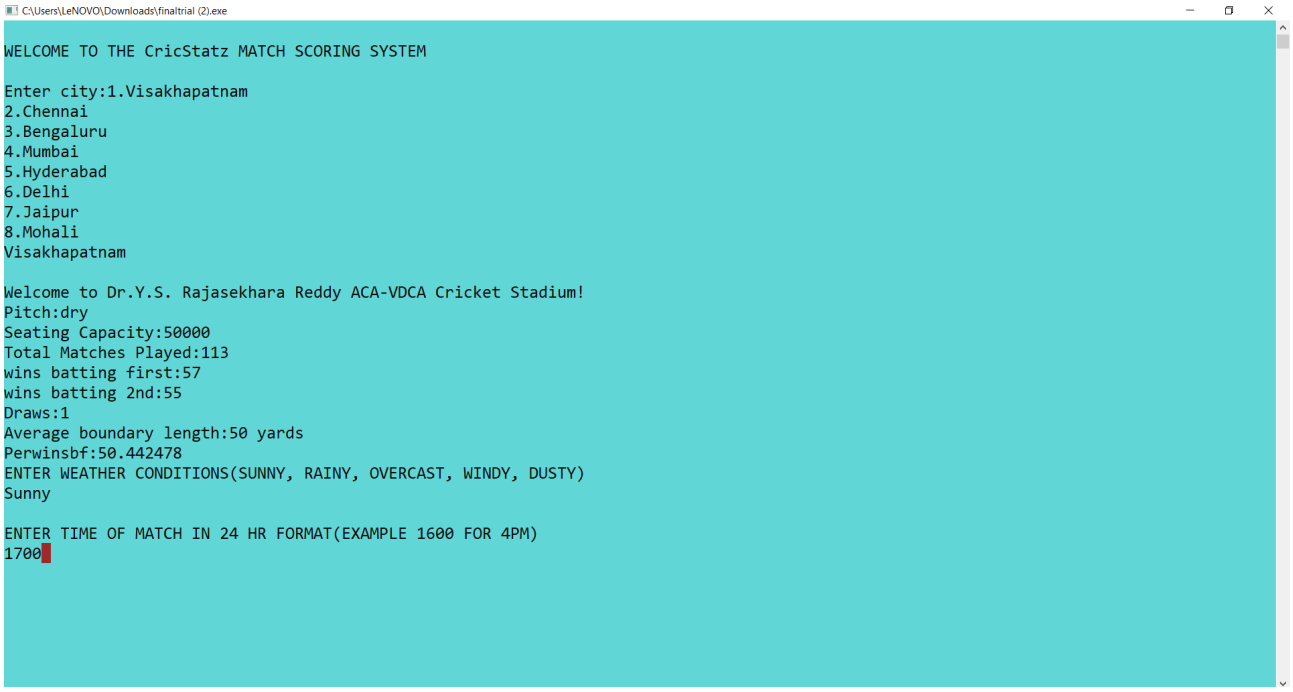

Figure 1: Venue Characteristics, Pitch Analysis, Weather Conditions

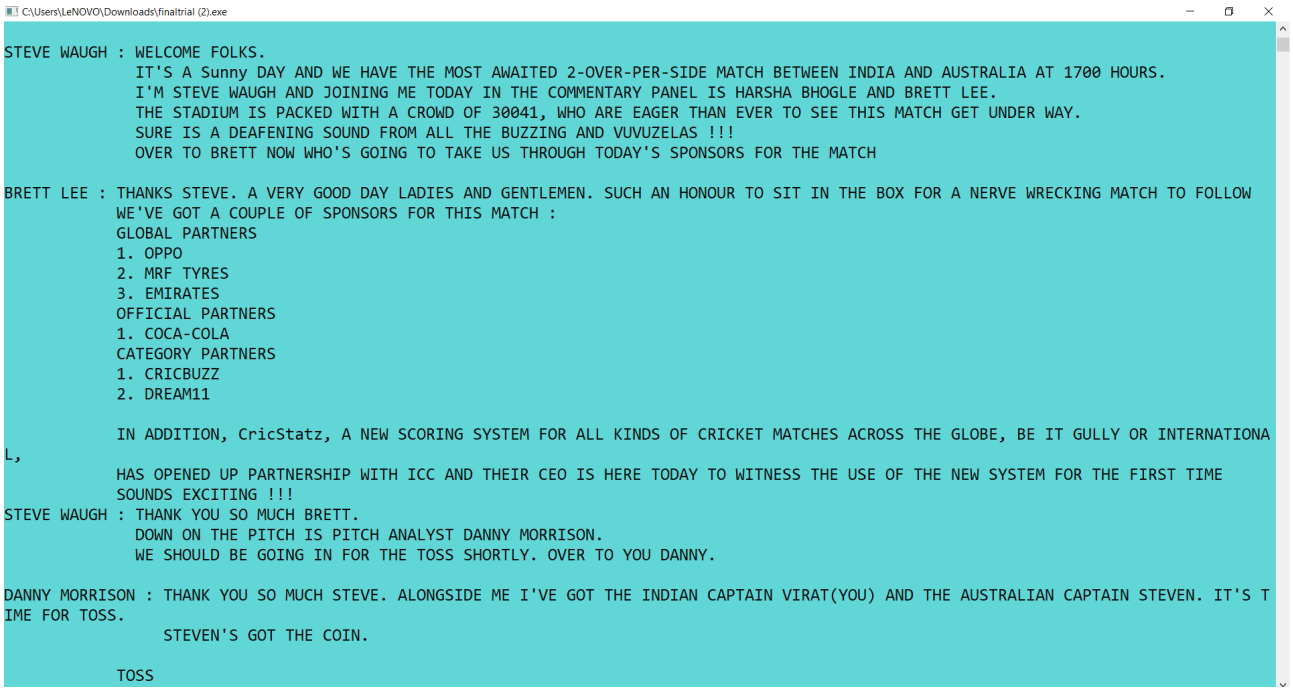

Figure 2: General Commentary Panel

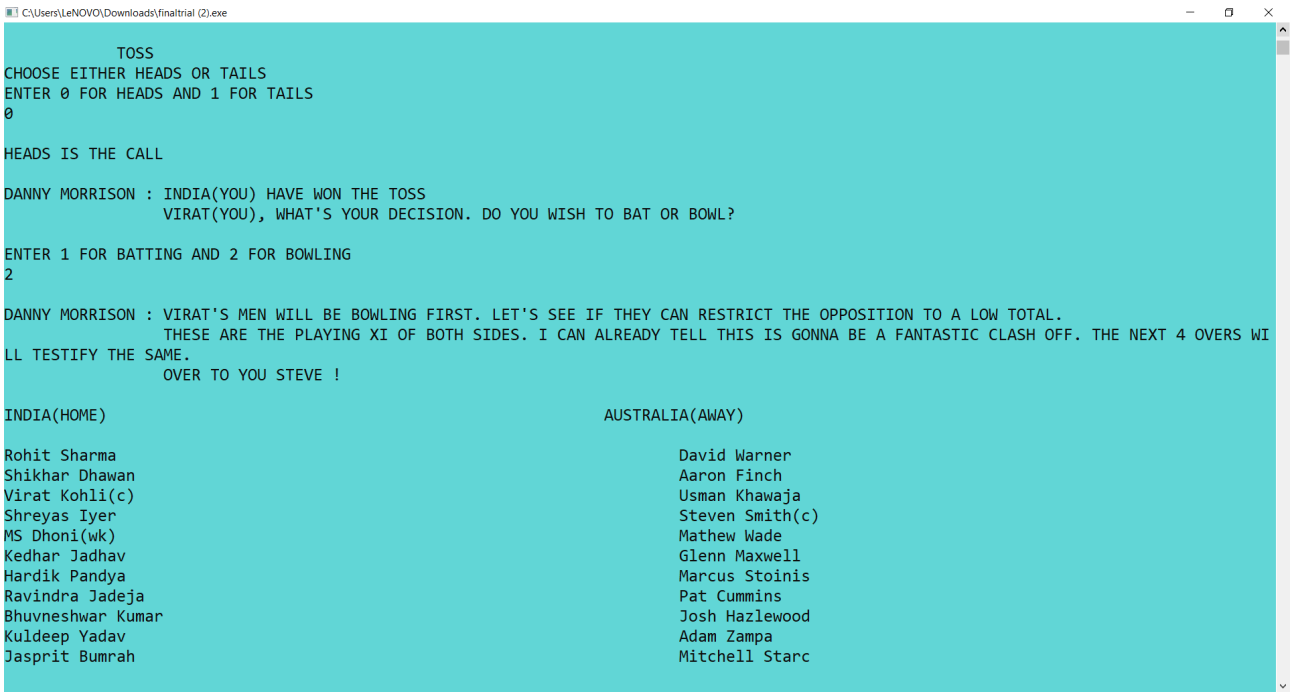

Figure 3: Toss and Playing XI display

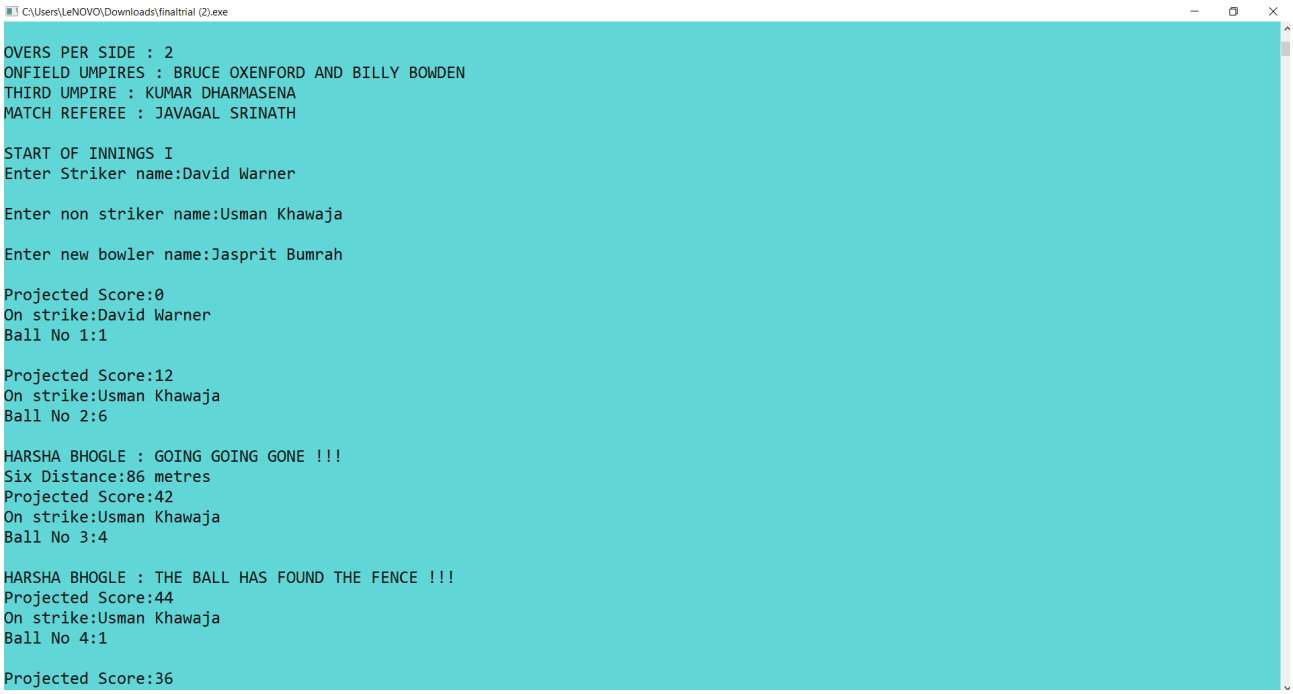

Figure 4: Ball-by-ball score input, Current and Required run rate display, Projected score display of 1st innings

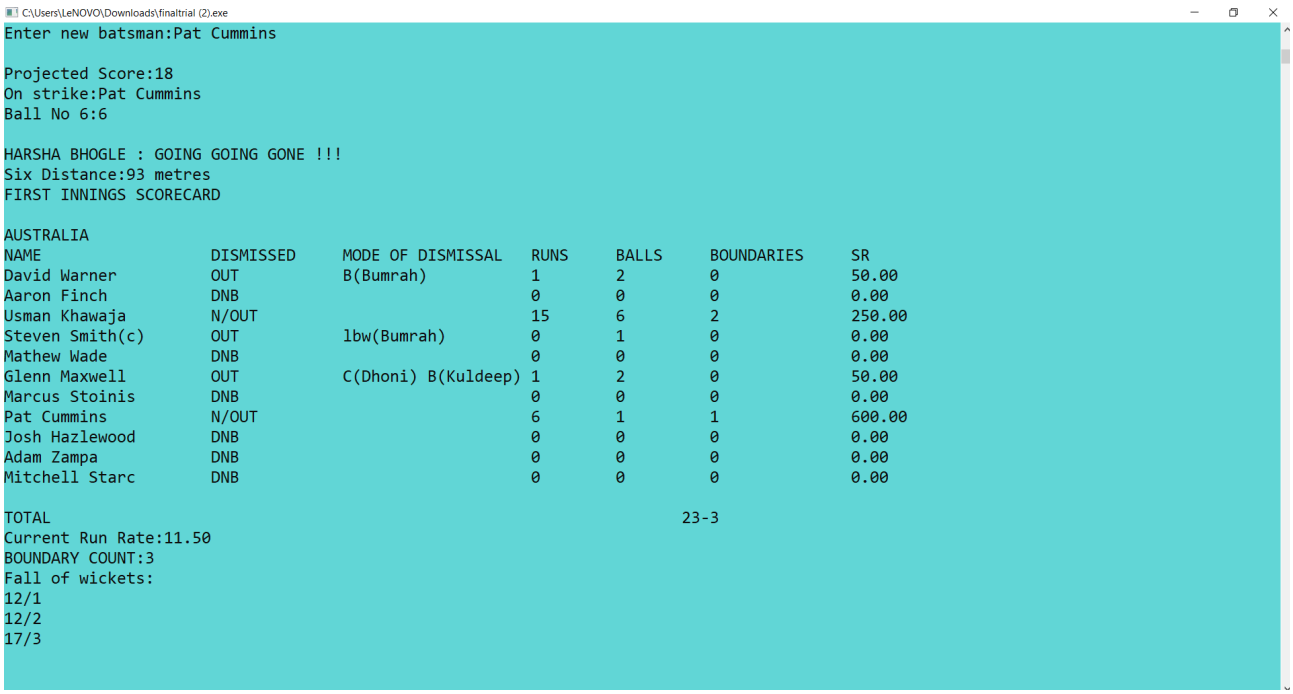

Figure 5: Batting ScoreCard Display

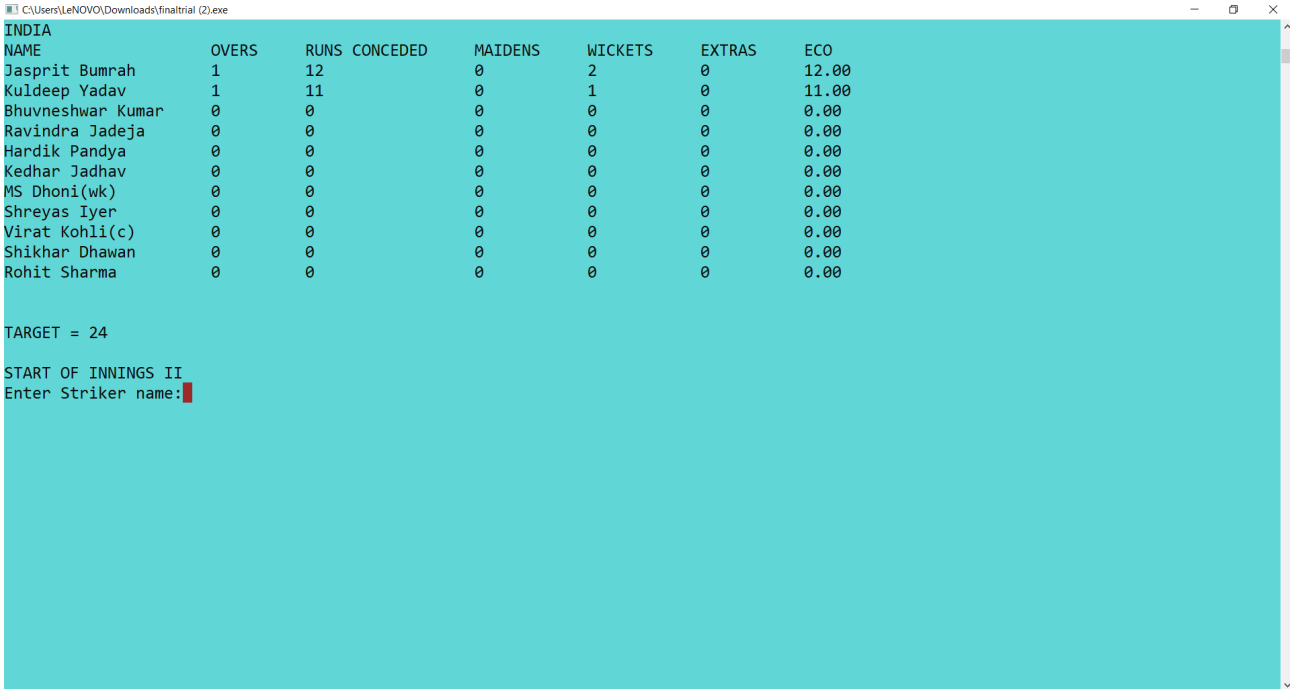

Figure 6: Bowling Scorecard display

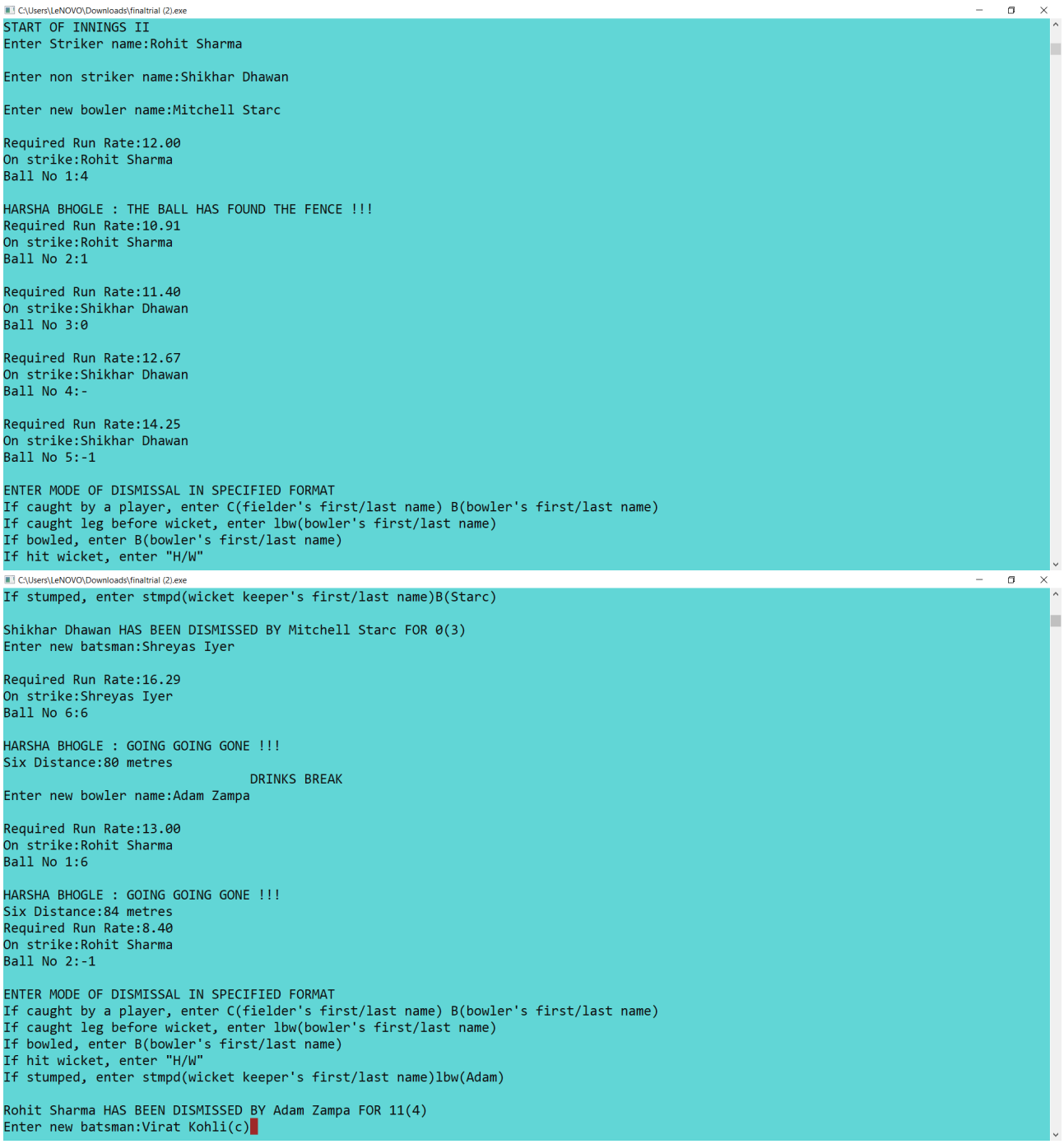

Figure 7: Ball-by-ball score input, Current and Required run rate display of second innings

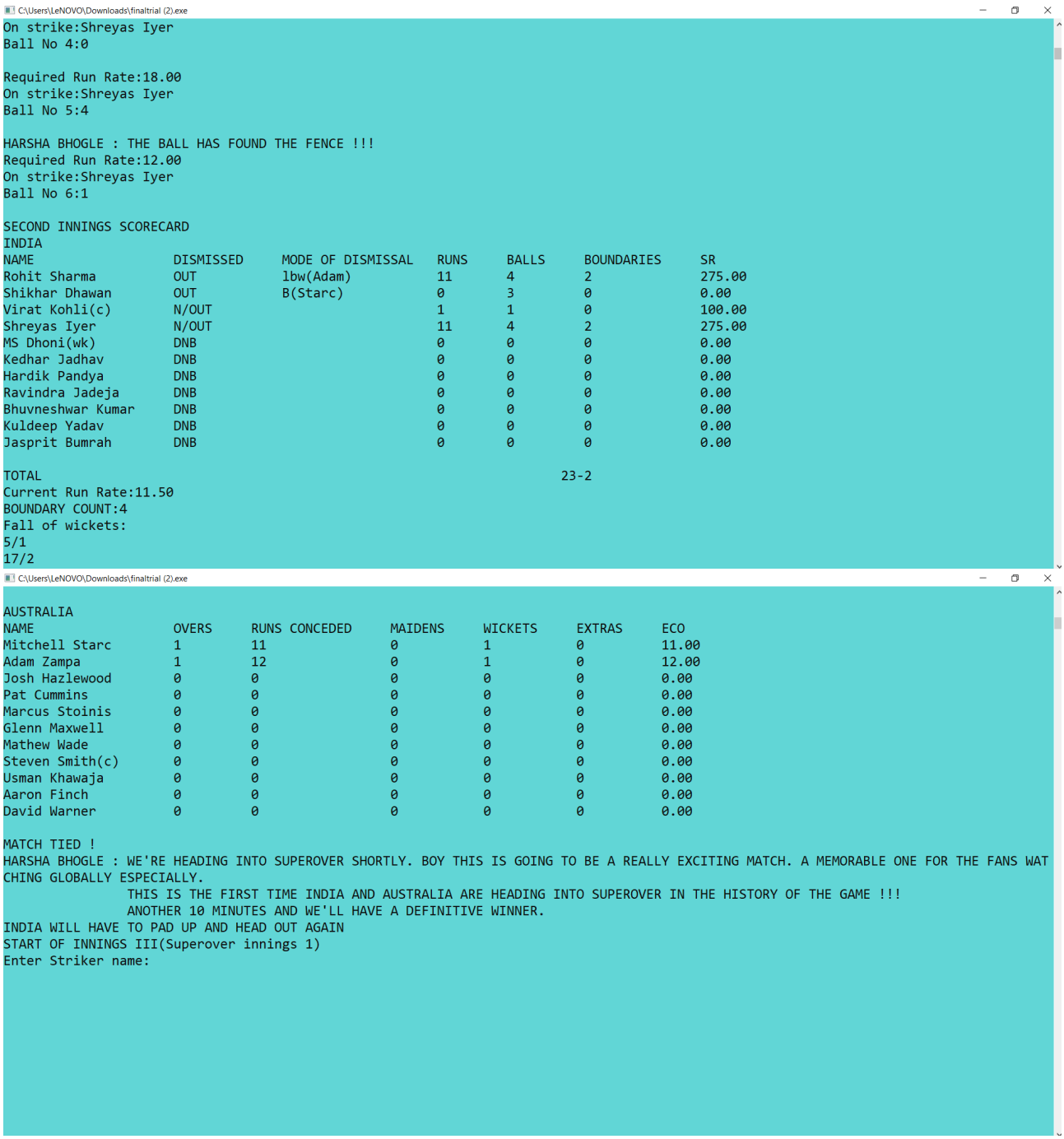

Figure 8: Super over incorporation as the match is tied!

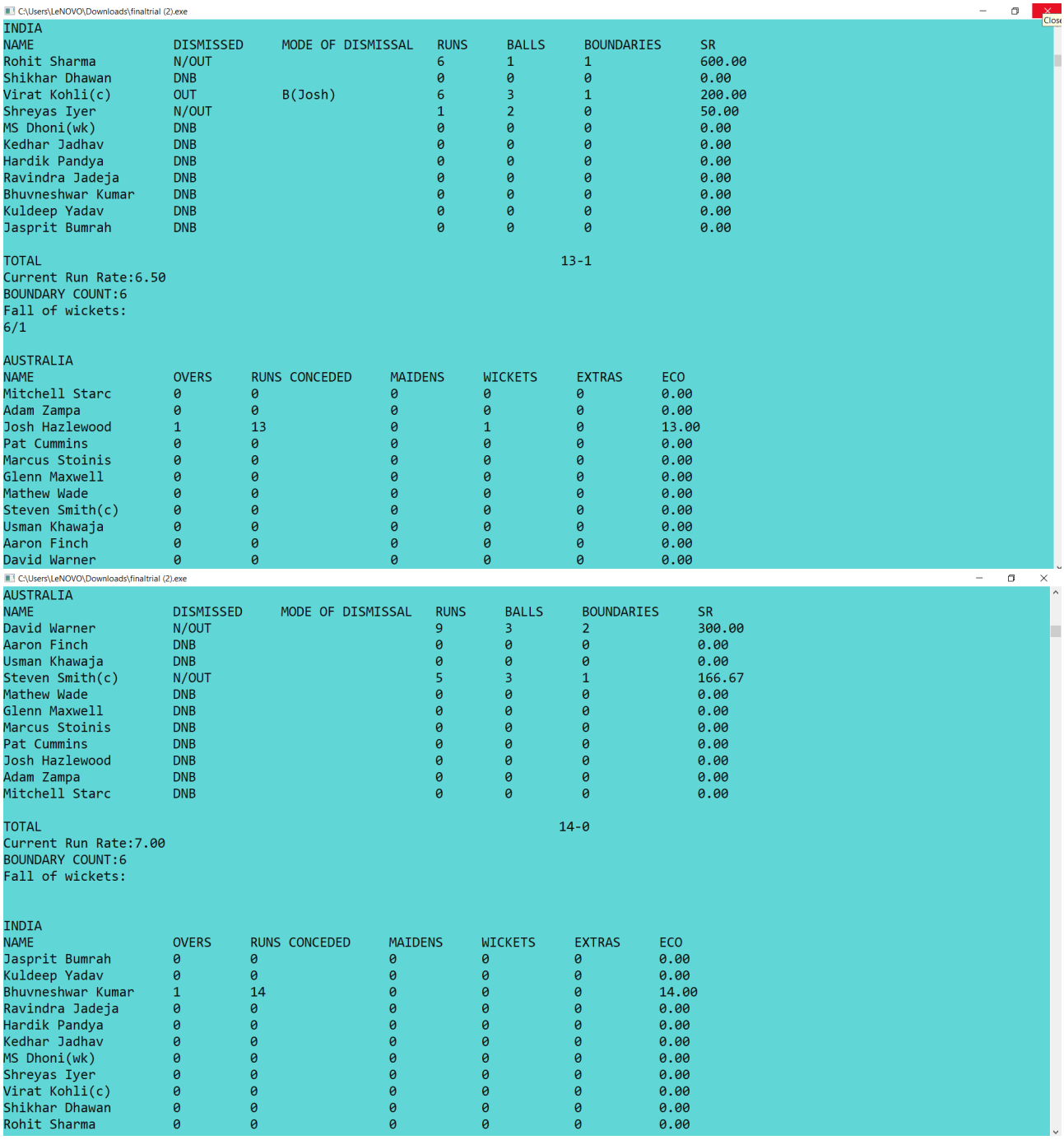

Figure 9: Scorecards display after ball by ball input for both the innings!

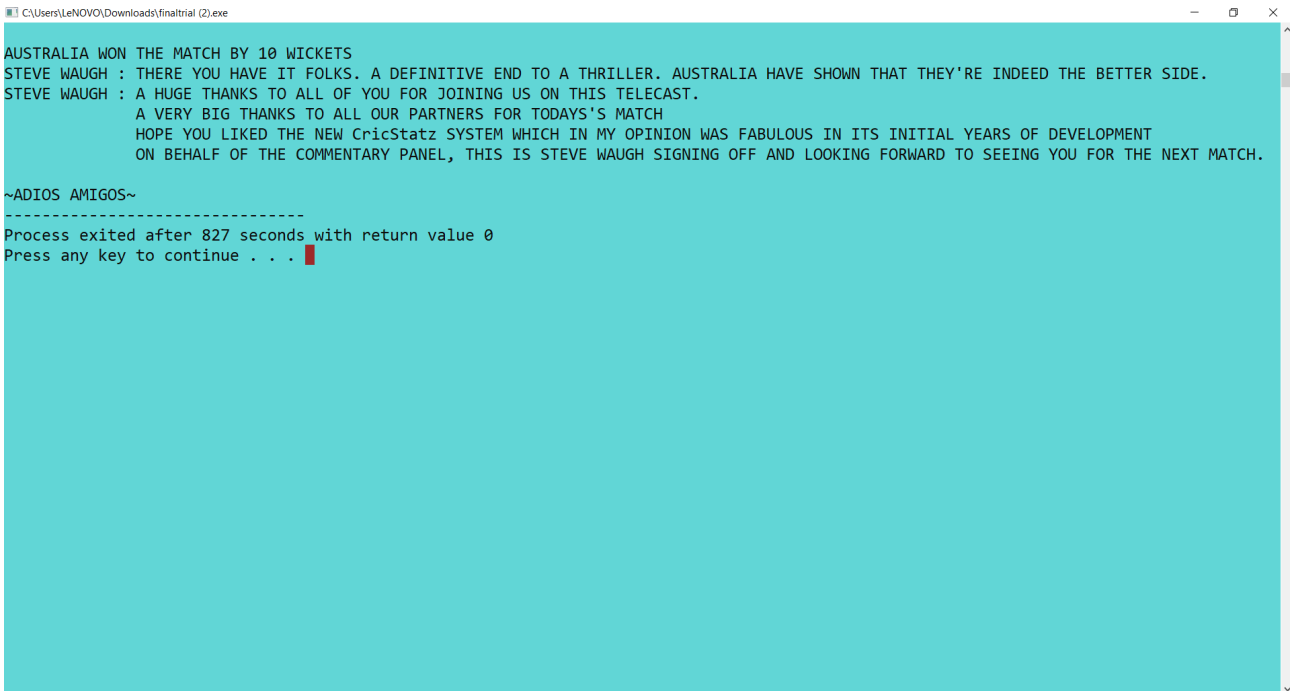

Figure 10: Boundary count incorporation as super over is also tied!

6 References

1. https://www.cricbuzz.com/cricket-team

2. https://en.wikipedia.org/wiki/CricketLawsandgameplay

3. https://sports.ndtv.com/cricket/grounds

THANK YOU!

****** END ******