VISHNU
UNIVERSAL LEARNING

BVRIT HYDERABAD College of Engineering for Women (UGC-Autonomous)

Programming for Problem Solving

LAB ACTIVITY

Done By:

HARSHITHA.K(G6)

NAGA SHARMADA.B(H1)

PRIYAMVADA.A(E4)

SEVITHA.M(F3)

Project 3: Cricket Score Sheet

Cricket Score Sheet project is a simple project. It uses file handling to store various information regarding runs, wickets, overs , extras, and many more. The program can display runs, wickets, names of batsmen and bowlers, overs, extras, economy of bowler, strike rate of batsmen, etc. It also displays the date and time of the game . The source code is complete, error-free and easy to understand.

The project begins by displaying the welcome screen, which fades up to reveal the main menu.

There are three choices on the main menu:

** Create a new score sheet*

**View a previous score sheet*

**Exit*

If 1 is entered, the Cricket Score Sheet project prompts for a new score sheet's name. A notice appears on the screen when the file is generated.

The user must next fill out the score sheet, which includes the following information:

Competition:

Venue:

Match between and versus:

Toss winner team:

Elected choice of toss winner:

Inning and date:

Name of batsman and run hit by each of them:

Name of bowler and run given by each blower:

competition:	Venue:
Match Between:	Versus:
Toss won by:	Elected To:
Inning Of:0	Date:

Batsmanname	Totoal runs	_4s	_6s
Batsman 1:	0	0	0
Batsman 2:	0	0	0
Batsman 3:	0	0	0
Batsman 4:	0	0	0
Batsman 5:	0	0	0
Batsman 6:	0	0	0
Batsman 7:	0	0	0
Batsman 8:	0	0	0
Batsman 9:	0	0	0
Batsman 10:	0	0	0
Batsman 11:	0	0	0

Bowlers	overs	Maidens	Economy	No balls	BTICO	Runs
Bowler 1:	0	0	0.00	0	0	0
Bowler 2:	0	0	0.00	0	0	0
Bowler 3:	0	0	0.00	0	0	0
Bowler 4:	0	0	0.00	0	0	0
Bowler 5:	0	0	0.00	0	0	0
Bowler 6:	0	0	0.00	0	0	0
Bowler 7:	0	0	0.00	0	0	0
Bowler 8:	0	0	0.00	0	0	0

Source Code:

```
#include <stdio.h>

#include <stdlib.h>

#include <string.h>

 struct Batsman {

   char name [50];

   int runs;

};

 struct Bowler {

   char name[50];

   int runsGiven;

};

 struct ScoreSheet {

   char competition[50];

   char venue[50];

   char team1[50];
```

```
    char team2[50];
    char tossWinner[50];
    char tossChoice[10];
    char inningAndDate[50];
    struct Batsman batsmen[11]; // Assuming a maximum of 11 batsmen
    struct Bowler bowlers[5];  // Assuming a maximum of 5 bowlers
};
 void createNewScoreSheet()  {
    struct ScoreSheet scoreSheet;
    FILE *file;
    char fileName[50];
   printf("Enter the name for the new score sheet: ");
    scanf("%s", fileName);
  file = fopen(strcat(fileName, ".txt"), "w");
   fprintf(file, "Cricket Score Sheet\n");
   printf("\nMatch Details:\n");
    printf("Competition: ");
    scanf("%s", scoreSheet.competition);
    fprintf(file, "Competition: %s\n", scoreSheet.competition);
    printf("Venue: ");
    scanf("%s", scoreSheet.venue);
    fprintf(file, "Venue: %s\n", scoreSheet.venue);
   printf("Match between: ");
    scanf("%s %s", scoreSheet.team1, scoreSheet.team2);
    fprintf(file, "Match between: %s and %s\n", scoreSheet.team1, scoreSheet.team2);
   printf("Toss winner: ");
```

```
 scanf("%s", scoreSheet.tossWinner);
 fprintf(file, "Toss winner: %s\n", scoreSheet.tossWinner);
 printf("Choice of toss winner (batting/bowling): ");
 scanf("%s", scoreSheet.tossChoice);
 fprintf(file, "Choice of toss winner: %s\n", scoreSheet.tossChoice);
printf("Inning and date: ");
 scanf("%s", scoreSheet.inningAndDate);
 fprintf(file, "Inning and date: %s\n", scoreSheet.inningAndDate);
printf("\nBatsmen Details:\n");
 for (int i = 0; i < 11; ++i) {
    printf("Enter batsman's name (type 'done' to finish): ");
    scanf("%s", scoreSheet.batsmen[i].name);
 if (strcmp(scoreSheet.batsmen[i].name, "done") == 0) {
       break;
    }

    printf("Runs scored by %s: ", scoreSheet.batsmen[i].name);
    scanf("%d", &scoreSheet.batsmen[i].runs);
   fprintf(file, "%s: %d\n", scoreSheet.batsmen[i].name, scoreSheet.batsmen[i].runs);
}

  printf("\nBowlers Details:\n");
    for (int i = 0; i < 5; ++i) {
          printf("Enter bowler's name (type 'done' to finish): ");
          scanf("%s", scoreSheet.bowlers[i].name);
```

```
            if (strcmp(scoreSheet.bowlers[i].name, "done") == 0)
                    {                   break;
                                                        }


    printf("Runs given by %s: ", scoreSheet.bowlers[i].name);
    scanf("%d", &scoreSheet.bowlers[i].runsGiven);
    fprintf(file, "%s: %d\n", scoreSheet.bowlers[i].name, scoreSheet.bowlers[i].runsGiven);
  }
 fclose(file);
 printf("Score sheet '%s' created successfully.\n", fileName);
}
void viewPreviousScoreSheet() {
  char fileName[50];
  FILE *file;
 printf("Enter the name of the score sheet to view: ");
  scanf("%s", fileName);
 file = fopen(strcat(fileName, ".txt"), "r");
 if (file == NULL) {
    printf("Score sheet not found.\n");
  } else {
     char ch;
     while ((ch = fgetc(file)) != EOF) {
        printf("%c", ch);
       fclose(file);
  }
}
```

```
int main() {
   while (1) {
      printf("\nMain Menu:\n");
      printf("1. Create a new score sheet\n");
      printf("2. View a previous score sheet\n");
      printf("3. Exit\n");
     int choice;
      printf("Enter your choice (1/2/3): ");
      scanf("%d", &choice);
       switch (choice) {
         case 1:
            createNewScoreSheet();
            break;
         case 2:
            viewPreviousScoreSheet();
            break;
         case 3:
            printf("Exiting the program. Goodbye!\n");
            exit(0);
         default:
            printf("Invalid choice. Please enter 1, 2, or 3.\n");
      }
   }
  return 0;
}
```

Output

```
/tmp/a.out

Main Menu:
1. Create a new score sheet
2. View a previous score sheet
3. Exit
Enter your choice (1/2/3): 1
Enter the name for the new score sheet: Cricket

Match Details:
Competition: T20
Venue: Mclean
Match between: NZ
BAN
Toss winner: NZ
Choice of toss winner (batting/bowling): batting
Inning and date: 12-12-2023

Batsmen Details:
Enter batsman's name (type 'done' to finish): Musafir
Runs scored by Musafir: 134
Enter batsman's name (type 'done' to finish): Rashiq
Runs scored by Rashiq: 75
Enter batsman's name (type 'done' to finish): Soumya
Runs scored by Soumya: 223
Enter batsman's name (type 'done' to finish): done
```

```
Batsmen Details:
Enter batsman's name (type 'done' to finish): Musafir
Runs scored by Musafir: 134
Enter batsman's name (type 'done' to finish): Rashiq
Runs scored by Rashiq: 75
Enter batsman's name (type 'done' to finish): Soumya
Runs scored by Soumya: 223
Enter batsman's name (type 'done' to finish): done

Bowlers Details:
Enter bowler's name (type 'done' to finish): Will
Runs given by Will: 27
Enter bowler's name (type 'done' to finish): Smith
Runs given by Smith: 86
Enter bowler's name (type 'done' to finish): Gil
Runs given by Gil: 34
Enter bowler's name (type 'done' to finish): done
Score sheet 'Cricket.txt' created successfully.

Main Menu:
1. Create a new score sheet
2. View a previous score sheet
3. Exit
```

```
Main Menu:
1. Create a new score sheet
2. View a previous score sheet
3. Exit
Enter your choice (1/2/3): 2
Enter the name of the score sheet to view: Cricket
Cricket Score Sheet
Competition: T20
Venue: Mclean
Match between: NZ and BAN
Toss winner: NZ
Choice of toss winner: batting
Inning and date: 12-12-2023
Musafir: 134
Rashiq: 75
Soumya: 223
Will: 27
Smith: 86
Gil: 34
```