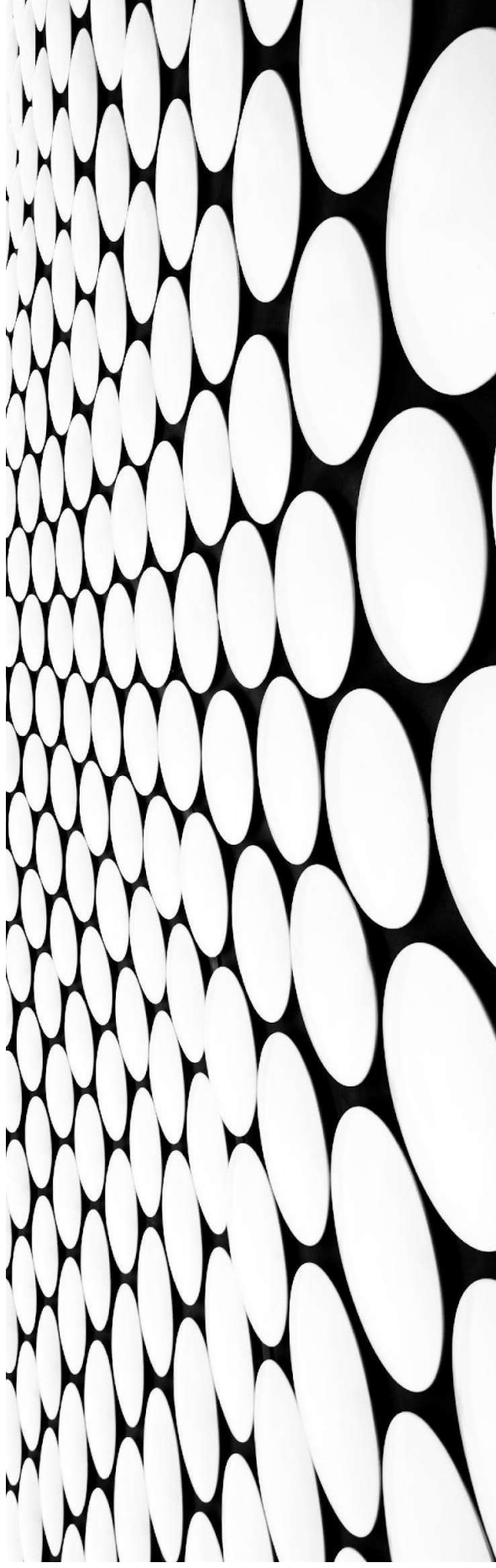# CO 101
MTE PROJECT

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TOPIC:
TOURNAMENT POINTS TABLE SYSTEM

ABOUT OUR PROJECT :

We know tournaments like IPL where different teams compete with each other and
wins, losses and points are displayed on the points table.
In this mini-project, we are trying to create this points table by using simple logics
functions, strings, etc .

FUNCTIONS USED

❖ void manage_points_table() : To arrange teams

❖ void print_points_table(int team, int rank) : To prints points table

❖ void calculate_points() : To calculate wins ,loses and points

LOOPS

❖ for loop
❖ do while loop

OTHERS

❖ Switch statement, goto statement, string functions.

LIBRARIES USED

#include<stdio.h>:-   The stdio.h header defines three variable types,several macros, and various functions and performing input and output.

#include<stdlib.h>:- The stdlib.h header defines four variable types,several macros,various functions for performing general functions .

#include<string.h>:- The string.h defines one variable type,one macro,and various functions for manipulating arrays of characters.

CODE:

```c
#include<stdio.h>
#include<stdlib.h>
#include<string.h>
int m[9] = {0}, w[9] = {0}, l[9] = {0}, p[9] = {0};
char *teams[] ={"RR", "DC", "PBKS", "KKR", "GT", "LSG", "CSK
"MI", "SRH"};
```

Printing The Points Table

```
switch (team)
{
case 0:
    printf("%d.RR       %d      %d      %d\n", rank, m[team], w[team], l[team], p[team]);
    printf("**************************************************\n");
    break;
case 1:
    printf("%d.DC       %d      %d      %d\n", rank, m[team], w[team], l[team], p[team]);
    printf("**************************************************\n");
    break;
```

Similarily other 8 cases will be formed to print other teams and their data

MANAGING THE POINTS TABLE

```c
int count=0, rank = 1, big = 0;
printf("\n***********IPL-Indian Premier League***********\n");

printf("\n           Points table\n\n");
printf("Team      Matches    Won   Lose   Points\n");

printf("\n*********************************************************\n");
for (int i = 0; i < 10; i++)
{
    for (int j = 0; j < 10; j++)
    {
        if (p[i] >= p[j])
        {
            count++;
            if (count == 10)
            {
                big=p[i];}}}
    count=0;

}
repeat:
for (int x = 0; x < 10; x++)
{
    if (p[x] == big)
    {
        print_points_table(x, rank);
        rank++;
    }
    if (x==9)
    {
        if (big==-5)
        {
            break;
        }
        else
        {
            big=big-5;
            goto repeat;    }}}
```

Calculating Points

```
void calculate_points()
{
int j, x, check, check1;
char teamName[5];
j = 5;
for (int i = 0; i < 5; i++)
{
r:

printf("'%s Vs %s\n'', teams[i], teams[j]);
printf("Who won the match: '');
scanf("'%s'',&teamName);
check = strcmp(teamName, teams[i]);
check1 = strcmp(teamName, teams[j]);
if (check == 0)
{

m[i] += 1;
w[i] += 1;
p[i] += 5;

m[j] += 1;
w[j] += 0;
l[j] += 1;
p[j] += 0;
```

Main Function

```c
void main()
{
    int choose;
    do
    {
again:
        printf("Press 1 for calculate points\n");
        printf("Press 2 for show points table\n");
        printf("Press 3 for exit\n");
        printf("Choose any option: ");
        scanf("%d", &choose);
        switch (choose)
        {
        case 1:
            calculate_points();
            break;
        case 2:
            manage_points_table();
            break;
        case 3:
            exit(0);
            break;
        default:
            printf("Invalid option try again\n");
            goto again;
            break;}
    } while (choose != 3);    }
```

Output

```
Press 1 for calculate points
Press 2 for show points table
Press 3 for exit
```

IF OPTION ONE IS SELECTED THEN THE USER SHOULD INPUT THE WINNING TEAM AND ACCORDINGLY POINTS WILL BE CALCULATED.

```
RR Vs LSG
who won the match: RR
```

```
Press 1 for calculate points
Press 2 for show points table
Press 3 for exit
Choose any option: 1
RR Vs LSG
Who won the match: RR
DC Vs CSK
Who won the match: DC
PBKS Vs RCB
Who won the match: PBKS
KKR Vs MI
Who won the match: KKR
GT Vs SRH
Who won the match: GT
SRH Vs RR
Who won the match: SRH
MI Vs DC
Who won the match: MI
RCB Vs PBKS
Who won the match: RCB
CSK Vs KKR
Who won the match: CSK
LSG Vs GT
Who won the match: GT
Press 1 for calculate points
Press 2 for show points table
Press 3 for exit
```

OPTION 2 WILL PRINT THE WHOLE POINTS TABLE . THE TEAM WITH MOST NUMBER OF POINTS WILL BE AT THE TOP

```
Press 1 for calculate points
Press 2 for show points table
Press 3 for exit
Choose any option : 2
*************IPL-Indian Premier League*************

                Points table

Team          Matches    Won    Lose    Points
***************************************************
1.GT             2         2      0       10
***************************************************
2.RR             2         1      1       5
***************************************************
3.DC             2         1      1       5
***************************************************
4.PBKS           2         1      1       5
***************************************************
5.KKR            2         1      1       5
***************************************************
6.CSK            2         1      1       5
***************************************************
7.RCB            2         1      1       5
***************************************************
8.MI             2         1      1       5
***************************************************
9.SRH            2         1      1       5
***************************************************
10.LSG           2         0      2       0
***************************************************
```

OPTION 3 WILL EXIT THE PROGRAM

```
Press 3 for exit

Choose any option: 3
```

THANK YOU