**ASSIGNMENT-1**

**By**

***Jashan Preet Singh***

**Roll Number : 2023A6R005**

**1st Semester**

**Department Name: CSE(AI/ML)**

****

**Model Institute of Engineering & Technology (Autonomous)**

(Permanently Affiliated to the University of Jammu, Accredited by NAAC with “A” Grade)

Jammu, India

2023



1. **Program to find factorial of a number using a recursive function**

**#include <stdio.h>**

**int factorial(int n) {**

**if (n == 0) {**

**return 1;**

**} else {**

**return n \* factorial(n - 1);**

**}**

**}**

**int main() {**

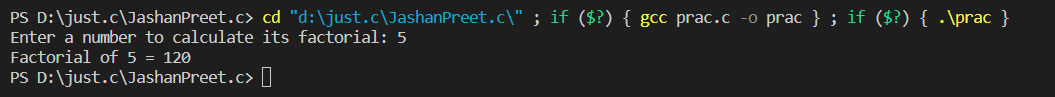
**int num;**

**printf("Enter a number to calculate its factorial: ");**

**scanf("%d", &num);**

**printf("Factorial of %d = %d\n", num, factorial(num));**

**return 0;**

**}**

**2.Program to accept batting information of cricket team using functions**

**#include <stdio.h>**

**struct Player {**

**char name[50];**

**int runs;**

**};**

**void enterBattingInfo(struct Player \*player) {**

**printf("Enter player name and runs scored (separated by space): ");**

**scanf("%s %d", player->name, &player->runs);**

**}**

**int calculateTotalRuns(struct Player team[], int numPlayers) {**

**int totalRuns = 0;**

**for (int i = 0; i < numPlayers; i++) {**

**totalRuns += team[i].runs;**

**}**

**return totalRuns;**

**}**

**void displayBattingInfo(struct Player team[], int numPlayers) {**

**printf("Batting Information:\n");**

**for (int i = 0; i < numPlayers; i++) {**

**printf("%-20s %d\n", team[i].name, team[i].runs);**

**}**

**}**

**int main() {**

**int numPlayers;**

**printf("Enter the number of players in the cricket team: ");**

**scanf("%d", &numPlayers);**

**struct Player team[numPlayers];**

**for (int i = 0; i < numPlayers; i++) {**

**enterBattingInfo(&team[i]);**

**}**

**int totalRuns = calculateTotalRuns(team, numPlayers);**

**displayBattingInfo(team, numPlayers);**

**printf("\nTotal Runs Scored by Cricket Team: %d\n", totalRuns);**

**return 0;**

**}**

