Cricket Career Score Grading Project

1. Research (Understanding the Game)

Introduction:

Cricket is a widely followed sport, and evaluating a player's performance over their career is essential for selection, awards, and recognition. Total career runs are a critical metric to measure the consistency and skill of a batsman.



High-scoring players often receive awards such as the Arjun Khel Ratna, which recognizes excellence in sports.

Key Points:

Career runs indicate overall batting performance.

Players are graded based on thresholds for career runs.

Top-performing players are eligible for awards.

Simple programming logic like if-else if can automate grading.

Summary:

This project aims to calculate a cricket player's career grade based on runs scored and determine award eligibility using C programming.

Sources:

- 1. Official cricket statistics websites (ESPN Cricinfo, ICC)
- 2. Sports award eligibility guidelines
- 3. C programming tutorials for if-else if statements

2. Analysis (Breaking Down the Problem)

Understanding the Problem:

We need to create a program that takes a player's total career runs as input, classifies the player into a grade based on predefined thresholds, and determines award nomination eligibility.

Key Requirements:

Input: Total career runs (integer)

Process: Compare runs against thresholds using if-else if

Output: Player grade and award nomination status

Input and Output:

Input: Integer value representing career runs

Output:

Grade of the player

Message indicating whether the player is nominated for the Khel Ratna Award

Pseudocode:

```
Start
```

Accept total career runs as input If runs > 15000 Grade = "GOD of Cricket" Nomination = "Player is nominated" Else if runs > 12000 Grade = "Legend" Nomination = "Player is nominated" Else if runs > 9000 Grade = "Excellent" Nomination = "Player is nominated" Else if runs > 6000 Grade = "Good" Nomination = "Player is not nominated" Else if runs > 3000 Grade = "Average" Nomination = "Player is not nominated" Grade = "Needs Improvement" Nomination = "Player is not nominated" Display Grade and Nomination End

Sources:

C Programming textbooks and online tutorials

Cricket career statistics and grading references

3. Ideate (Planning Our Solution)

Approach & Description:

The approach is simple yet effective. By using if-else if statements, the program can quickly classify a player based on career runs. The thresholds are designed to reflect realistic cricket career achievements. Players scoring more than 15000 runs are exceptional and considered "GOD of Cricket", while lower tiers reflect decreasing performance.



Own Thoughts:

Grading players based on career runs is a fair and measurable approach. It ensures unbiased evaluation across all players. Including award eligibility in the same program shows how sports metrics can be applied programmatically.

Sources:

Own understanding of cricket performance metrics

Research on award criteria and recognition in sports

4. Build (Understanding the program)

#include <stdio.h>

int main() {
 int runs:

```
printf("Enter total career runs of player: ");
  scanf("%d", &runs);
  if (runs > 15000) {
     printf("Grade: GOD of Cricket\n");
     printf("Nomination: Player is nominated for Arjun Khel Ratna Award \sqrt{n});
  else if (runs > 12000) {
     printf("Grade: Legend\n");
     printf("Nomination: Player is nominated for Arjun Khel Ratna Award ✓ \n");
  }
  else if (runs > 9000) {
     printf("Grade: Excellent\n");
     printf("Nomination: Player is nominated for Arjun Khel Ratna Award ✓ \n");
  else if (runs > 6000) {
     printf("Grade: Good\n");
     printf("Nomination: Player is not nominated for Khel Ratna Award X\n");
  }
  else if (runs > 3000) {
     printf("Grade: Average\n");
     printf("Nomination: Player is not nominated for Khel Ratna Award X\n");
  }
  else {
     printf("Grade: Needs Improvement\n");
     printf("Nomination: Player is not nominated for Khel Ratna Award X\n");
  }
  return 0;
}
```

5. Testing

Tes	t Case			
Input Runs		Expected Grade	Expected Nomination	
1	16000	GOD of Cricket	Player is nominated	
2	13000	Legend	Player is nominated	
3	9500	Excellent	Player is nominated	
4	7000	Good	Player is not nominated	
5	4000	Average	Player is not nominated	
6	2000	Needs Improvement	Player is not nominated	

6. Conclusion

The program successfully calculates a cricket player's career grade based on total runs.

Award eligibility is determined accurately using clear thresholds.

If-else if statements provide a simple and efficient solution for grading.

This project bridges real-world cricket performance with programming logic.

Sources:

- 1. ESPN Cricinfo: Career statistics
- 2. ICC official cricket data
- 3. C Programming tutorials online

7.Implementation

https://github.com/P1010-dotcom/Cricket-Grading-Project.git

