

PROBLEM SOLVING WITH PROGRAMMING

COURSE PROJECT

1.TITLE OF THE PROJECT:

Cricketer Strike Rate Calculator.

2.ABSTRACT:

The "Cricketer Strike Rate Calculator" course project is aimed at developing a software tool that can calculate the strike rate of a cricketer based on their batting performance. The project will involve developing algorithms to extract and process data related to runs scored and balls faced by a cricketer, as well as creating a user-friendly interface for inputting this data and displaying the calculated strike rate. The project will be implemented using the C programming language, and will require an understanding of basic programming concepts such as data types, loops, and functions. The final outcome of the project will be a functional and efficient strike rate calculator that can be used by cricket enthusiasts and statisticians alike.

3.INTRODUCTION:

Welcome to the Cricketer Strike Rate Calculator course project! If you are a cricket enthusiast who loves to analyze the performances of your favorite cricketers, this project is for you. In this course, you will learn how to build a strike rate calculator that can help you determine the batting performance of a cricketer in a match or over a period of time.

A strike rate is a crucial parameter in cricket that indicates the number of runs a batsman scores per 100 balls faced. It is a key metric for evaluating a batsman's performance, especially in limited-overs formats such as One Day Internationals (ODIs) and Twenty20 (T20) matches.

4.TRADITIONAL METHOD AND PROBLEMS :

From a very long time we have been using the traditional method of pen and paper system for strike rate record by writing very single detail of batsmen in records.

The traditional method for calculating the strike rate of a cricketer involves dividing the number of runs scored by the number of balls faced and then multiplying by 100. The formula for calculating strike rate is as follows:

$$\text{Strike Rate} = (\text{Number of Runs Scored} / \text{Number of Balls Faced}) \times 100$$

For example, if a cricketer has scored 50 runs in 75 balls faced, then their strike rate would be calculated as follows:

$$\text{Strike Rate} = (50/75) \times 100$$

$$\text{Strike Rate} = 66.67$$

Therefore, the cricketer's strike rate would be 66.67. This means that they score an average of 66.67 runs for every 100 balls faced.

The traditional method for calculating a cricketer's strike rate has been used for many years, but it has several limitations that can lead to inaccurate or misleading results. One major issue with this method is that it does not account for when a batsman is not out, which can skew the calculation. Additionally, the traditional method does not consider the quality of the opposition, the match conditions, the context of the innings, or the player's role in the team. These factors can all have a significant impact on a player's performance and make the strike rate calculation less meaningful. While the traditional method can be a useful starting point for evaluating a cricketer's batting ability, it should be used in conjunction with other metrics and contextual information to get a more accurate picture of their value to the team.

5.SOLUTION:

Using a program to calculate strike rate in cricket provides several benefits. Firstly, it ensures accuracy in the calculation of strike rate, eliminating the possibility of human error. This is particularly important when dealing with large amounts of data. Secondly, it saves time, as a program can quickly process and analyze data, and calculate strike rates in a matter of seconds. This efficiency is particularly useful when analyzing team performance and individual player performance. Thirdly, a program can handle a large amount of data and calculate strike rates for multiple players simultaneously, making it an efficient tool for data analysis. Finally, a program can be customized to meet specific needs, allowing users to analyze data in a way that is most useful for them. Overall, using a program to calculate strike rate in cricket is a useful and efficient tool for data analysis, providing greater accuracy and saving time.