

This Project is Created By Jyotirmay Chowdhury.

<https://jyotirmaychowdhury.pages.dev/>

This Python code defines a function named `is_leap_year` that determines whether a given year is a leap year or not. Here's a breakdown of how it works:

1. `def is_leap_year(year)::` This line defines a function called `is_leap_year` that takes one parameter, `year`, which represents the year we want to check.
2. Inside the function, there are several conditional statements (if-else) to check if the input year is a leap year:
 - `if year % 4 == 0::` This line checks if the year is divisible by 4. If it is, it means it could be a leap year because leap years are typically divisible by 4.
 - `if year % 100 == 0::` If the year is divisible by 4, this nested condition checks if it's also divisible by 100. Leap years are often divisible by 100, but not always.
 - `if year % 400 == 0::` If the year is divisible by both 4 and 100, this further nested condition checks if it's divisible by 400. If it is, the year is marked as a leap year because it meets the criteria for a leap year.
 - `print('Leap Year'):` If the year is divisible by 4, by 100, and by 400, it's considered a leap year, and this message is printed.
 - `else::` If the year is divisible by 4 and 100 but not by 400, it means it's not a leap year, so this message is printed instead: `print('Not leap year')`.
 - `else::` If the year is divisible by 4 but not by 100, it's considered a leap year, so this message is printed: `print('Leap year')`.
 - `else::` If the year is not divisible by 4, it's definitely not a leap year, so this message is printed: `print('Not Leap Year')`.
3. Finally, outside the function, the code calls `is_leap_year(2051)`, which checks if the year 2051 is a leap year or not.

In summary, this code defines a function to determine if a year is a leap year based on the rules for leap years, and then it tests the function by checking if the year 2051 is a leap year or not. In this case, 2051 is not a leap year, so the function will print "Not Leap Year."

This Project is Created By Jyotirmay Chowdhury.

<https://jyotirmaychowdhury.pages.dev/>