



Program determines it is a leap year or not

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Write a program that takes a year as input and determines whether it is a leap year or not.

## Program In C



```
#include <stdio.h>

int main() {
    int year;

    printf("Enter a year: ");
    scanf("%d", &year);

    if ((year % 4 == 0 && year % 100 != 0) || year % 400 == 0) {
        printf("%d is a leap year.\n", year);
    } else {
        printf("%d is not a leap year.\n", year);
    }

    return 0;
}
```




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```
}
```

## Explanation:

1. We include the `<stdio.h>` header file to use `printf` and `scanf` functions.
2. In the main function, we declare an integer variable `year` to store the user input.
3. We prompt the user to enter a year using `printf`.
4. We read the user input using `scanf` and store it in the variable `year`.
5. We use an if-else statement to check if the year is a leap year or not.
6. The condition `(year % 4 == 0 && year % 100 != 0) || year % 400 == 0` checks whether the year is divisible by 4 but not by 100, or if it is divisible by 400. These are the conditions for a leap year.
7. If the condition is true, we print that the year is a leap year.
8. If the condition is false, we print that the year is not a leap year.
9. Finally, we return 0 to indicate successful execution of the program.

## Output:

Output 

```
Enter a year: 2020
2020 is a leap year.
```



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## Program In Java

Java

```
import java.util.Scanner;

public class LeapYearChecker {
    public static void main(String[] args) {
        int year;

        Scanner scanner = new Scanner(System.in);
        System.out.print("Enter a year: ");
        year = scanner.nextInt();

        if ((year % 4 == 0 && year % 100 != 0) || year % 400 == 0) {
            System.out.println(year + " is a leap year.");
        } else {
            System.out.println(year + " is not a leap year.");
        }

        scanner.close();
    }
}
```

Explanation:

Java

```
Enter a year: 2022
```



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```
2022 is not a leap year.
```

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