## **❖**Leap Year:

## Explanation: -

The leap year problem involves determining whether a given year is a leap year, which occurs every four years to help synchronize the calendar year with the astronomical year. A year is classified as a leap year if it is divisible by 4, except for end-of-century years, which must be divisible by 400 to be considered leap years. This adjustment ensures that the calendar remains accurate over long periods, accounting for the Earth's orbit around the Sun.

```
Time Complexity: -O(1)
Space Complexity: - O(1)
 Start
Input Year
   V
Is Year < 0?
 Yes No
Output: "Invalid year"
   Is Year \% 400 == 0?
   Yes No
```

```
| v v
Output: "Year is a leap year"
| V
| Is Year % 100 == 0?
| Yes No
Output: "Year is not a leap year"
| Is Year % 4 == 0?
| /\
| Yes No
Output: "Year is a leap year"
| v
|Output: "Year is not a leap year"
V
End
```