Write a program using the function to calculate the simple interest. Suppose the customer is a senior citizen. He is being offered a 12 percent rate of interest; for all other customers, the ROI is 10 percent.
Sample Input: Enter the principal amount: 200000
Enter the no of years: 3
Is customer senior citizen (y/n): n
Sample Output: Interest: 60000
Test Cases: 1. Principal: 2000 , Years: 0
2. Principal: 20000 , Years: -2
3. Principal: -2000 , Years: 2
4. Principal: 2 , Years: 2000
5. Principal: 0 , Years: 5

Program:

```
import java.util.Scanner;

public class SimpleInterestCalculator {
   public static void main(String[] args) {
      Scanner scanner = new Scanner(System.in);

      // Get input from the user
      System.out.print("Enter the principal amount: ");
      double principal = scanner.nextDouble();

      System.out.print("Enter the no of years: ");
      int years = scanner.nextInt();

      System.out.print("Is customer senior citizen (y/n): ");
      char seniorCitizen = scanner.next().charAt(0);

      // Calculate interest based on the customer type
      double rateOfInterest;
      if (seniorCitizen == 'y' || seniorCitizen == 'Y') {
         rateOfInterest = 0.12; // 12% interest for senior citizens
      } else {
         rateOfInterest = 0.10; // 10% interest for other customers
      }

      // Calculate simple interest
      double interest = calculateSimpleInterest(principal, rateOfInterest, years);
```

```
        // Check for negative or invalid inputs
        if (principal <= 0 || years <= 0) {
            System.out.println("Invalid input. Principal amount and years should be
greater than zero.");
        } else {
            System.out.println("Interest: " + interest);
        }

        scanner.close();
    }

    public static double calculateSimpleInterest(double principal, double
rateOfInterest, int years) {
        return principal * rateOfInterest * years;
    }
}
```

Output: