<u>Nested if-else Problems</u>

1. **Determine if a Number is Even, Odd, or Zero**: Write a program that prompts the user to input a number. The program should check if the number is zero, even, or odd. If the number is zero, display "It is zero." If the number is even (divisible by 2), display "It is an even number." Otherwise, display "It is an odd number."

2. **Classify Triangle by Sides**: Write a program that asks the user to input the lengths of three sides of a triangle. **Using nested if-else statements**, determine and classify the triangle as one of the following:
   o **Equilateral**: All three sides are equal.
   o **Isosceles**: Two sides are equal.
   o **Scalene**: All three sides have different lengths.

3. **Check Voting Eligibility:** Ask the user for their age and citizenship status. Use nested if-else to check:
   - If the user is at least 18 years old and
   - If they are a citizen, they are eligible to vote.
   - If not, they are not eligible due to citizenship.
   - If under 18, display not eligible due to age

4. **Student Scholarship Eligibility**: Ask the user for their grade and family income. Determine:
   o If the grade is greater than or equal to 85, check the income:
   o If the income is less than $40,000, they are eligible for a full scholarship.
   o Otherwise, they are eligible for a partial scholarship.
   o If the grade is below 85, display "Not eligible for scholarship."

5. **Nested Restaurant Menu:** Create a program where the user selects a meal type (e.g., Vegetarian or Non-Vegetarian) and then selects a specific dish:
- If Vegetarian: - Options are Salad or Soup.
- If Non-Vegetarian: - Options are Chicken or Fish.
Display their final choice