P4: REQUIREMENTS and DESIGN

REQUIREMENTS

R1. The system should accept 3 positive integer numbers (a, b, c) which represents 3 sides of the triangle.
R2. Based on the input should determine if a triangle can be formed or not.
R3. If the requirement R2 is satisfied then the system should determine
the type of the triangle, which can be

- **Equilateral (i.e. all the three sides are equal)**
- **Isosceles (i.e Two sides are equal)**
- **Scalene (i.e All the three sides are unequal)**

R4. Upper Limit for the size of any side is 10

DESIGN

ALGORITHM:
Step 1: Input a, b & c i.e three integer values which represent three sides of
the triangle.
Step 2: if (a < (b + c)) and (b < (a + c)) and (c < (a + b) then do step 3
else
print not a triangle. do step 6.
Step 3: if (a=b) and (b=c) then
Print triangle formed is equilateral. do step 6.
Step 4: if (a ≠ b) and (a ≠ c) and (b ≠ c) then
Print triangle formed is scalene. do step 6.
Step 5: Print triangle formed is Isosceles.
Step 6: stop