North South University

Department of Electrical & Computer Engineering

ASSIGNMENT

CSE 427

Section: 1

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Repository Link: https://github.com/gazishafayet05/North-South-University.git

a. List all the input variables, including the state variables

- S1
- S2
- S3
- SCALENE
- ISOSCELES
- EQUILATERAL
- INVALID

b. Define Characteristics of the Input Variable. Make sure you cover all input variables.

S1, S2 and S3 are the sides of the triangles.
In SCALENE triangle, all 3 sides are different as they are not equal. (S1!=S2 && S2!=S3 && S1!=S3)
In ISOSCELES triangle, out of 3 sides, 2 sides are equal in value and the 3rd side is different in value. (S1==S2 && S1!=S3 || S1==S3 && S3!=S2 || S2==S3 && S1!=S2)
In EQUILATERAL triangle, all 3 sides are equal in value. (S1==S2 && S2==S3)
Invalid is when it is not valid.

c. Define Characteristics of Inputs.

Inputs will be given in integer value. The result of the input will be given based on the condition of the input. If three separate integer values are given in input, then it will show Scalene Triangle. If out of the 3 values, 2 values are same in integer value, then it will be declared as Isosceles Triangle. If all the 3 values are given same during input as integer numbers, then it will be declared as Isosceles Triangle. And if any of the input is given anything except integer numbers, then it will show that it is invalid.

d. Partition the characteristics into blocks.

Partition	b1	b2	b3	b4
q1= ”Geometric Classification”	scalene	Isosceles, not equilateral	equilateral	invalid

e. Define values for each block.

Parameters	b1	b2	b3	b4
Triangle	(2,3,4)	(5,5,6)	(4,4,4)	(3,2,1)