Ahsanullah University of Science and Technology
Course Title: Object Oriented Programming Lab
Course Number: CSE1206

Offline 03 Group: C1

Project Name: StructureTest (main class)

	Marks
Class: **Structure** Private Variable: **structureName** (String), **structureVolume** (double) Design the class (getter setter, constructers) as per your requirements.	**2**
Class: **DevelopStructure** Create 3 overloaded methods named **produceStructure()** whose return type is **Structure.** The methods calculate the volume according to the number of parameters. Then assigns the structure volume and name to the Structure object and returns it.	
produceStructure(double radius) structureVolume = $(4/3) * \pi * radius^3$ structureName = Sphere **[type cast 4/3 as double, otherwise you might not get your desired answer]**	**3**
produceStructure (double radius, double height) structureVolume = $(1/3) * \pi * radius^2 * height$ structureName = Cone **[type cast 1/3 as double, otherwise you might not get your desired answer]**	**3**
produceStructure (double base, double height, double length) structureVolume= $(1/2) * (base * height) * length$ structureName = Triangular Prism **[type cast 1/2 as double, otherwise you might not get your desired answer]**	**3**
Now create the object of **DevelopStructure** class and call all the 3 overloaded methods. Then print the **structureNames** and **structureVolumes** from the objects generated by the methods. **Take user input wherever needed.**	**4**
Total:	**15**

Sample Input	Sample Output
Input 1 value: 2 Input 2 values: 3 6 Input 3 values: 4 7 5	Sphere Volume: 33.510321638291124 Cone Volume: 56.548667764616276 Triangular Prism Volume: 70.0