Lab Assignment-5
UTA018: Object Oriented Programming

Topics covered: Constructors in Inheritance, abstract class and virtual base class

Q1. Implement a C++ program to define three classes *Alpha, Beta* and *Gamma*, each class having private data members. *Gamma* is a class derived from *Alpha* and *Beta* (by applying multiple inheritance). Use constructors and destructors to read and display data.

Q2. Write a program to define class *X, Y* and *Z*. Each class contains one character array as a data member. Using multiple inheritance, concatenate strings of class *X* and *Y* and store it in class *Z*. Using constructor and destructors, show all the three strings.

Q3. Write a C++ program to implement the diamond problem (hybrid inheritance). State the necessary assumptions using comments. – (HINT: use virtual base class)

Q4. Write a C++ program creating an abstract class *Student*. Create three derived classes *Science*, *Art* and *Commerce* from the base class. Create the objects of the derived classes and process them and access them using array of pointer of type *Student*.

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