Branch : MCA
Semester : Spring Semester 2021-22
Course Code : CA3205
Laboratory Name : Numerical Computing using C++
Assignement No. : ASSIGNMENT – 6 (GROUP- II)
Assignment Title : Inheritance

1) Implement the following class hierarchy by defining all functions of each class. Demonstrate the call of each function and access to each data member using an object of bottom most class. In addition to all operations, show the order of execution for constructors and destructors for multi-level inheritance.

Class : Point

Members: xco, yco

Functions: constructors, destructors, print()

Class : Ellipse (inherits Point)

Members : a_axis, b_axis,

Functions: consturctors, destructors, print(), float area()

Class: Ellipsoid (inherits Ellipse)

Members : c_axis

Functions: constructors, destructors, print, float volume()

2) Implement the following muliple-inheritance hierarchy. Demonstrate overridding of printdata() and object slicing while showing a function call to the corresponding version of each parent class.

Class : VegCuisine

Member : name, cost

Function: constructors, destructors, printdata()

Class: NonVegCuisine

Member : name, cost

Functions : constructors, destructors, printdata()

Class : ComboCuisine(Inherits VegCuisine and NonVegCuisine)

Members: (all inherited)

Functions: constructors, destructors, printdata()

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