

**LAB 7**

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OOPs

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**Multi-Inheritance**

Date : 03/25/2023

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Task 1:

To write a c++ program to get student details, total marks & average marks using Multilevel Inheritance.

Declare the *base class student*.

Define three *data members rollno, marks1 & marks2*.

Declare and define the function *get()* to get input for data members rollno, marks1 & marks2.

Declare the other *class arts*.

Define one *data member arts marks*.

Declare and define the function *getam()* to input the arts mark.

Create the *class result derived from student and arts*.

Declare and define the function *display()* to find out the total and average.

Declare the *derived class object & call the functions get(),getam() and display()*.

Stop the program.

Text

Description automatically generated

Source code:

|  |
| --- |
| #include <iostream>  using namespace std;  class Student  {  protected:      int rollnum, marks1, marks2;  public:      Student() {}      void get()      {          cout << "Enter the roll no: ";          cin >> rollnum;          cout << "Enter marks1 and marks2: ";          cin >> marks1 >> marks2;      }  };  class Arts : public Student  {  protected:      int artsmarks;  public:      Arts() {}      void getam()      {          cout << "Enter the Arts Marks: ";          cin >> artsmarks;      }  };  class Result : public Arts  {  public:      void display()      {          cout << "Roll num: " << rollnum << endl;          cout << "Total: " << marks1 + marks2 + artsmarks << endl;          double avera = marks1 + marks2 + artsmarks;          cout << "Average: " << avera / 3 << endl;      }  };  int main()  {      Result r1;      r1.get();      r1.getam();      r1.display();      return 0;  } |

Output:

