Bangladesh University of Business & Technology (BUBT)

Department of Computer Science and Engineering

Assignment - 02: Spring 2023

Course Code: CSE 122 | Course Title: Object Oriented Programming Language Lab

Intake: 50th, Program: B.Sc in CSE (Bi-Semester)

Marks – 10

CO	Question
CO2	Imagine a publishing company that markets both book and audiocassette versions of its works. Create a class publication that stores the title (a string) and price (type float) of a publication. From this class derive two classes: book, which adds a page count (type int), and tape, which adds a playing time in minutes (type float). Each of these three classes should have a getData() function to get its data from the user at the keyboard, and a putData() function to display its data. Write a main program to test the book and tape classes by creating instances of them, asking the user to fill in data with getData(), and then displaying the data with putData().

Here is the answer if this question ----

```
#include <iostream>
#include <string>
using namespace std;

class publication {
   private:
      string title;
      float price;
   public:
```

```
    void getData() {
        cout << "Enter title: ";
        getline(cin, title);
        cout << "Enter price: ";
        cin >> price;
        cin.ignore(); // ignore newline character
    }
    void putData() const {
        cout << "Title: " << title << endl;
        cout << "Price: $" << price << endl;
    }
};

class book : public publication {
  private:
    int page_count;
  public:
    void getData() {
        publication::getData();
        cout << "Enter page count: ";
        cin >> page_count;
        cin.ignore(); // ignore newline character
    }
    void putData() const {
        publication::putData();
        cout << "Page count: " << page_count << endl;
```

```
    }
};

class tape : public publication {
  private:
    float playing_time;
  public:
    void getData() {
      publication::getData();
      cout << "Enter playing time (in minutes): ";
      cin >> playing_time;
      cin.ignore(); // ignore newline character
    }
    void putData() const {
      publication::putData();
      cout << "Playing time: " << playing_time << " minutes" << endl;
    }
};

int main() {
  book b;
  tape t;

  cout << "Enter book data:\n";
  b.getData();
  cout << "\nEnter tape data:\n";
```

```
    t.getData();


    cout << "\nBook data:\n";
    b.putData();
    cout << "\nTape data:\n";
    t.putData();


    return 0;
}
```