**Task: Implement a Media Management System**

**Objective**: Create a simple media management system using Object-Oriented Programming (OOP) concepts in C++. You will implement a base class and two derived classes to manage details of books and tapes.

**Requirements:**

**Base Class (media)**:

Create a class named media that represents general media items.

This class should have the following protected member variables:

title: a character array of size 50 to store the title of the media.

price: a float variable to store the price of the media.

The class should have a constructor that initializes title and price.

Include a virtual function display() which will be overridden in the derived classes.

**Derived Class for Books (book)**:

Create a class named book that inherits from the media class.

Add a private member variable:

pages: an integer to store the number of pages in the book.

The constructor should initialize title, price, and pages.

Implement the display() method to output the book's title, number of pages, and price.

**Derived Class for Tapes (tape)**:

Create a class named tape that also inherits from the media class.

Add a private member variable:

time: a float to store the play time of the tape.

The constructor should initialize title, price, and time.

Implement the display() method to output the tape's title, play time, and price.

**Main Function**:

In the main() function, perform the following:

Declare variables for title, price, pages, and time.

Use dynamic memory allocation to allocate space for the title string.

Prompt the user to enter details for a book (title, price, and number of pages) and create a book object.

Prompt the user to enter details for a tape (title, price, and play time) and create a tape object.

Call the display() method for both the book and tape objects to print their details.

**Output:**

1. When executed, the program should display the details of both the book and the tape entered by the user.

**Example Interaction:**

ENTER BOOK DETAILS

Title: C++ Programming

Price: 29.99

Pages: 350

ENTER TAPE DETAILS

Title: Classical Music

Price: 15.50

Play time (mins): 60

Output:

Title: C++ Programming

Pages: 350

Price: 29.99

Title: Classical Music

Play time: 60 mins

Price: 15.50