

1. 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()`.
2. Employees in a company are divided into the classes `Employee`, `HourlyPaid`, `SalesCommissioned`, and `Executive` for the purpose of calculating their weekly wages or monthly salaries. The data to be maintained for each class may be summarized as follows:

Employee class	Name of employee
HourlyPaid class	Rate of pay Total weekly hours worked
SalesCommissioned class	Percentage commission on total sales Total sales for month
Executive class scale	Incremental point on annual salary

The methods used in each class may be summarized as follows.

Employee class	<code>getName</code> <code>computePay</code> —as an abstract method
HourlyPaid class	<code>getRate</code> <code>getHours</code> <code>computePay</code>
SalesCommissioned class	<code>getPercentage</code> <code>getSales</code> <code>computePay</code>
Executive class	<code>getIncrement</code> <code>computePay</code>

Implement the classes and write a test program to verify that the classes function correctly.