Define an abstract base class called CartItem with the following virtual functions:

* virtual double calculatePrice() const = 0;
* virtual void displayDetails() const = 0;

The calculatePrice() function should calculate and return the total price of the item. The displayDetails() function should display the details of the item, including its name, quantity, and any other relevant information.Create two derived classes: Book and Electronic.

* The Book class should have data members for the book's title, author, price per unit, and quantity.
* The Electronic class should have data members for the electronic item's name, brand, price per unit, and quantity.

Implement the calculatePrice() and displayDetails() functions in both derived classes. The calculatePrice() function for Book should calculate the total price as "price per unit \* quantity," and for Electronic, it should do the same. The displayDetails() function for each class should display the relevant details. In the main part of your program, create instances of Book and Electronic. Add items to a shopping cart, and calculate and display the total price of the items in the cart. Implement a shopping cart class that can hold multiple items (use an array or a vector). It should have functions for adding items to the cart and for displaying the contents of the cart, including the individual item details and the total price.