Exercise - Adapter Pattern (25 minutes)

The provided code for the Adapter Pattern exercise contains the following classes:

1. A class named ContactManager that contains a collection of Contacts (as in personal contacts). Each Contact object contains the name and contact information for a person.
2. A class named Table that can be used to display a table of data in the console (i.e., shell). Table can display any data/object that implements the TableData interface.

Write a program that uses the Table class to display the contents of a ContactManager object in the console. This will require you to write an adapter class that wraps a ContactManager object and implements the TableData interface.

Exercise - Decorator Pattern (25 minutes)

1. Define an interface named StringSource that represents an object that produces strings. Your interface should look something like this (modified as needed for your language):

    ```
    interface StringSource {  String next(); }
    ```

2. Write at least two classes that implement the StringSource interface, and that return some interesting strings. The strings may be hard-coded, come from a file, come from the keyboard, or wherever you like.
3. Implement the Decorator Pattern by creating at least three decorator classes each of which performs some kind of transformation on a StringSource. For example, a decorator might reverse strings or manipulate whitespace or add punctuation or whatever you can think of. Be creative.
4. Write a program that demonstrates your string decorators in action.

Zip up your code for both exercises and submit it on Canvas.