





In order to follow the decorator pattern, I created an abstract MailBoxDecorator class that implements the MailBox interface, this class simply contains a mailbox object name `internalMailBox`. I used the strategy pattern with the `EncryptMailBox` so that the user could set which encrypt/decrypt pattern to use. In order to sort messages in `SortedMailBox`, I added a `compareTo` method in the message class, which extends the `comparable` class. With Mailbox factory I implemented the wrapping of mailboxes by creating six different methods that called on the constructor of its respective mailbox. Four of these methods (`Sorted`, `Encrypted`, `Covert`, and `Filtered`) all were given and passed on a mailbox object to the constructor and returned the new object.