***Assign 6 pt.2***

***Design Patterns***

1. **Iterator** 
   * **Lines 65-71 of ReviewHandler.java** – Iterator iterates through files and imports them in the database.
   * **Lines 96-112 of ReviewHandler.java** – inFile.hasNextLine() iterates throughout the text and stores it as a review’s text in the database.
   * **Lines 192-215 of ReviewHandler.java** - Database is implemented into a map which iterates over multiple objects then stored as a serialized file.
   * **Lines 245 – 259 of ReviewHandler.java** - An iterator, Map.Entry< Integer, MovieReview>entry, that can search the database using the substring from the input of the user.
   * **Lines 428-443 of SentimentAnalysisApp.java** –ReviewList is used as a container for MovieReview objects and then displayed in a formated JTable.
   * **Lines 498 of SentimentAnalysisApp****.java** – Used for searching through the database for similar substrings.
   * **Lines 601-627 of SentimentAnalysisApp.java** – The list is used for data to be printed out in a formated JTable.
2. **Composite**
   * **Lines 66-80 of SentimentAnalysisApp.java** **–** Common private final variables used throughout the program for several JComponents.
   * **Lines 73-74 of SentimentAnalysisApp.java** **-** A container that holds the JText area.
   * **Lines 92-95 of SentimentAnalysisApp.java** **-** JPanel that acts as a container that stores other JComponents.
3. **Strategy**
   * **Lines 93, 216, 218, 259 of SentimentAnalysisApp.java** **-** Different layout assignments from layout manager to make the GUI more user friendly.
4. **Observer** 
   * In SentimentAnalysisApp.java there were several functions where actions listeners were used as observers monitoring the user’s actions waiting to execute their individual code.
5. **Decorator** 
   * **Lines 98-104 of SentimentAnalysisApp.java** **-** Scanner inFile acts as a decorator.
   * **Lines 639 of SentimentAnalysisApp.java -** JScrollPlan acts as a decorator for JTables because a JTable does not need a Scroll plan.