

**1. Object oriented elements that you write the code for:**

**a. Classes**

- i. AbstractController.java
- ii. Cjbb5fRankListCreator.java
- iii. Item.java
- iv. Openable.java
- v. RankList.java
- vi. Savable.java
- vii. ScoreType.java

**b. Subclasses.**

- i. AboutController.java
- ii. AddItemController.java
- iii. HomeController.java
- iv. NewRankListController.java
- v. RankListViewController.java

**c. At least one abstract class**

- i. AbstractController.java

**d. At least one Interface**

- i. Openable.java
- ii. Savable.java

**2. Code elements that you utilize:**

**a. One or more collection classes.**

- i. RankList.java
  - 1. Utilizes ArrayList<> to store a list of items in sorted order (line 10)

**b. Exception Handling.**

- i. RankListViewController.java
  - 1. Method: handleDelete
    - a. Try-catch used when parsing an integer (line 81)
- ii. Openable.java
  - 1. Method: openRankList
    - a. Try-catch used to handle opening a file and reading a serialized object (line 22)
- iii. Savable.java
  - 1. Method: saveRankList
    - a. Try-catch used to handle saving a file (line 21)

**3. The application must have a clearly defined model (as in the M in MVC)**

- a. **Model Classes**
  - i. RankList.java
  - ii. Item.java
- 4. **The UI must utilize multiple scenes and at least one of the scenes will have the contents of the scene graph changed based on the application state.**
  - a. Home.fxml
    - i. The three buttons other than quit all will switch to a different scene
  - b. NewRankList.fxml
    - i. Cancel or create buttons will switch back to home
  - c. About.fxml
    - i. Back will switch back to home
  - d. RankListView.fxml
    - i. Home or add item buttons will switch scenes
    - ii. The contents of the view pane change when items are added or deleted
  - e. AddItem.fxml
    - i. Cancel or add buttons will return to the RankListView scene
    - ii. Number of fields to enter changes depending on the RankList
- 5. **There must be a way to access “About” information that includes information about you and the application.**
  - a. About.fxml
    - i. Includes all information about the application
- 6. **The application must save data and load data. The target for saving/loading data can be files, a network service, and/or a database.**
  - a. Savable.java
    - i. Includes the method saveRankList which saves data (line 14)
  - b. Openable.java
    - i. Includes the method openRankList which loads data (line 15)