SEMINAR 4

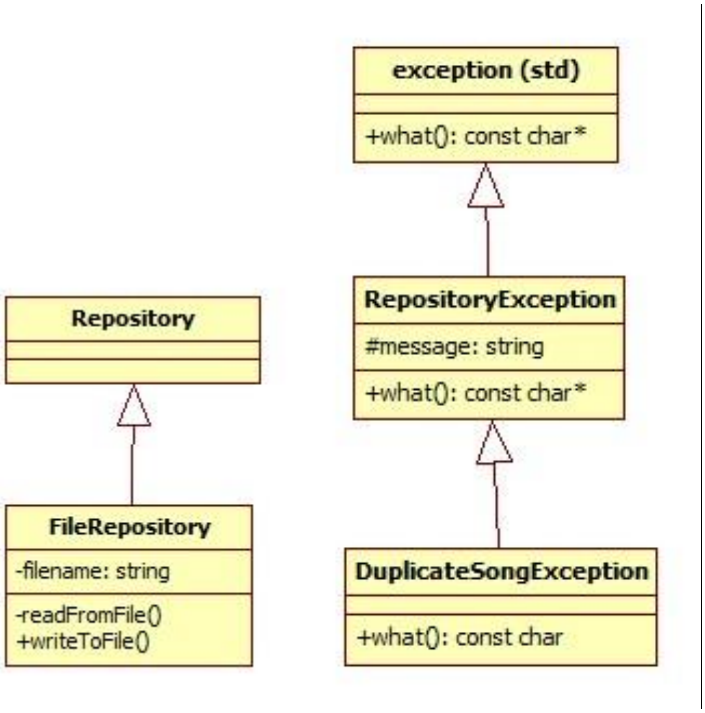
1. OBJECTIVES

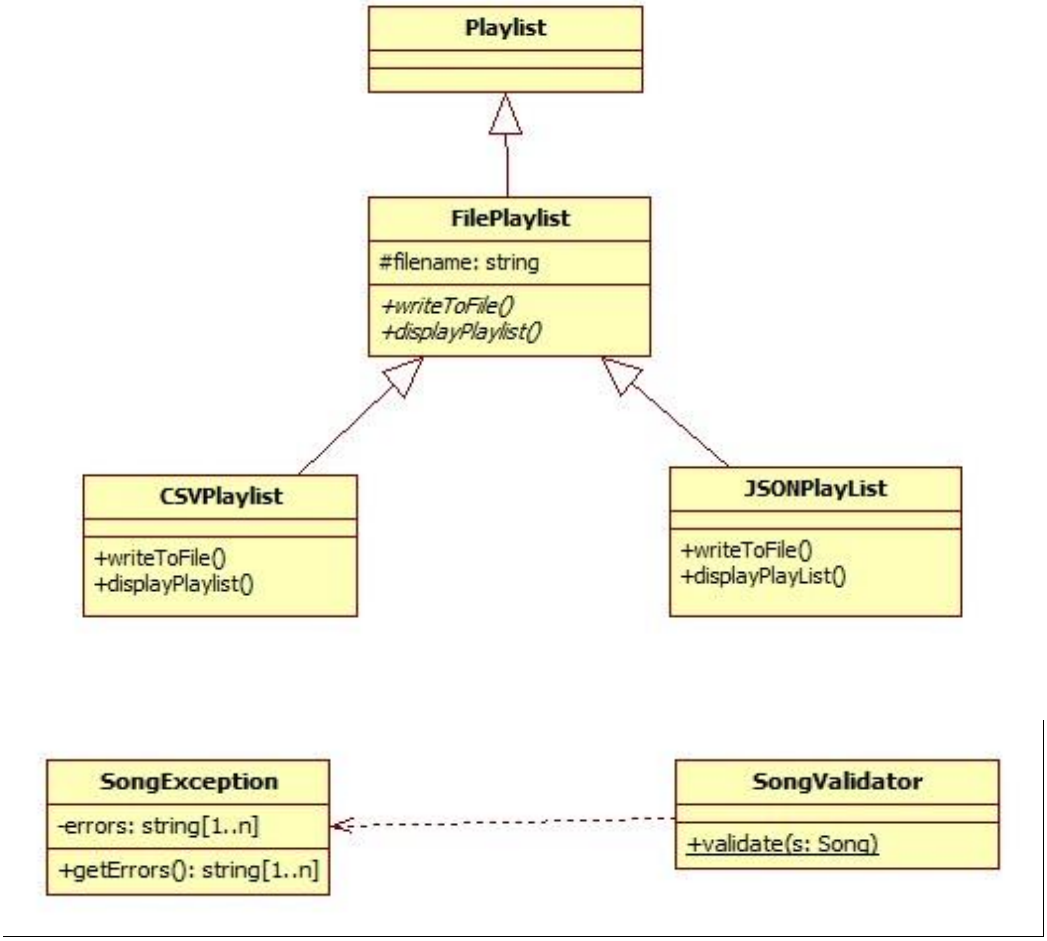
- Work with input/output streams, define custom extraction/insertion operators.
- Read/write data from/to files.
- Define and use exception classes and hierarchies.

2. PROBLEM STATEMENT

Extend your playlist application to offer data persistence. The songs in the repository will be read from/written to a text file and the application will provide functionalities for storing the playlist data to a CSV/JSON file. Furthermore, the application will have to use exceptions in order to signal errors.

3. UML DIAGRAMS





4. TASKS FOR TODAY'S SEMINAR

Download the seminar task from the course web page and implement the classes **FilePlayList**, **CSVPlayList** and **JSONPlayList**, such that when a user chooses to save his/her playlist to a specific type of file, the application stores the playlist correctly and opens it using the suitable application (Chrome/Notepad for JSON and Notepad/Excel/OpenOffice Calc for CSV).

Songs JSON example:

```
{"songs":[
   {
      "artist":"Pink Floyd",
      "title":"Comfortably numb",
      “minutes”:6,
      “seconds”:53,
```

```
      “link”: “https://www.youtube.com/watch?v=_FrOQC-zEog”
   },
   {
      "artist":"Hozier",
      "title":"Take me to church ",
      “minutes”:4,
      “seconds”:2,
      “link”:
      https://www.youtube.com/watch?v=MYSVMgRr6pw&index=30&list=PLb5DqBOB_Gn7CfN91JAl39ZWX4IwqcBBz
   }
]}
```