SEMINAR 4

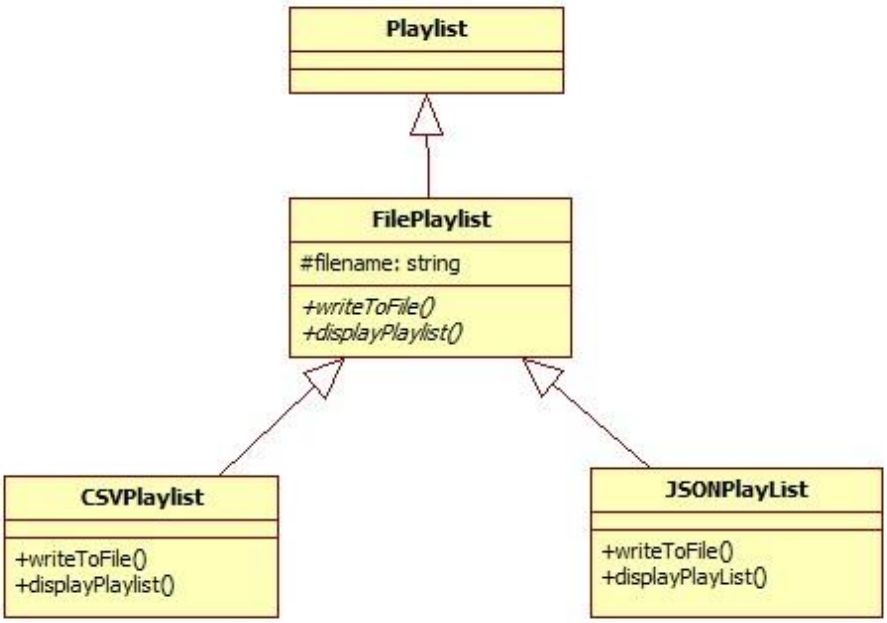
1. OBJECTIVES

- Exercise inheritance and polymorphism by implementing a List *interface* (template class) and two implementations of this class: DynamicVector (already implemented) and LinkedList.
- Work with input/output streams, define custom extraction/insertion operators.
- Read/write data from/to files.

2. PROBLEM STATEMENT

Extend your playlist application to offer data persistence. The application will provide functionalities for storing the playlist data to a CSV/JSON file. 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).

3. UML DIAGRAMS



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
   }
]}
```