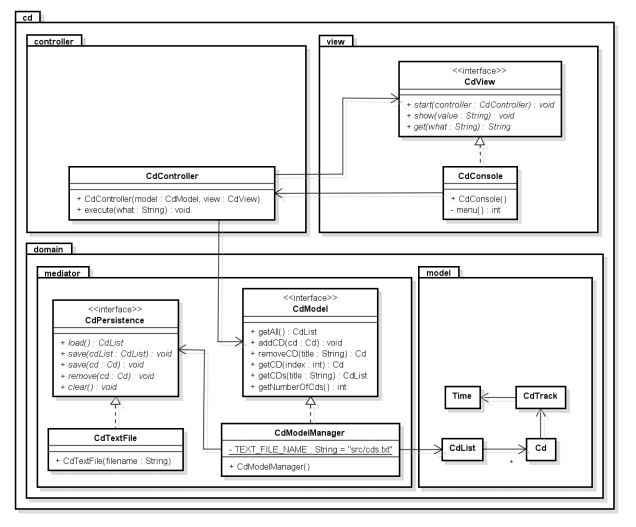
Exercise X8 – Model-View-Controller:

A) Find (and insert into a document) a general diagram of a Model-View-Controller design pattern.

B) Describe the overall purpose for the Model-View-Controller design pattern.

Model–view–controller (MVC) is a software architectural pattern for implementing systems with user interfaces. MVC is splitting application into three main parts. The purpose of that is archive situation when every component is doing one thing and make more code more readable and easier to work on.

C) Describe in text each part of the Model-View-Controller. Hereby purpose and responsibility for each part of the pattern.

**Model** - representation of problem or logic of application.

**View** - describing how to show some parts of model in user interface.

**Controller** - taking input form a user and managing updating model and refreshing view.

D) Describe how to use a Model-View-Controller design pattern.

To use MVC programmer should split system into three parts. place interface in view, application logic and date managing in model and reactions on user input into controller and only allow them to communicate. None of these parts should include things that other parts are responsible for, to avoid spaghetti code. It is highly recommended to use packages.

E) Give overall a few remarks to implementation, what to remember.

It is important to remember which part is responsible for and following a rule that every component is making one and only one thing. Programmer have to keep in mind that main reason of using mvc is to make work easier and follow the “*divide and conquer”* rule.

F) Insert code examples (your own code) for each part of the Model-View-Controller pattern. Not full code only code fractions directly related to the pattern.

G) Create and insert into the document a UML class diagram of the Model-View-Controller design pattern you implemented.