

For Node class, this is an abstract class, it is used for composite design pattern and observer design pattern.

For File class, this is the class that extends Node class since a file is a node as well. This class is used for composite design pattern. Also this class is participant of the observer pattern design because when the file is modified, the observer class will notice.

For Directory class, this is the class that extends Node class since a directory is a node as well. Also a directory can contain many other directories as well as other files, but a file can not do the opposite. This class is used for composite design pattern.

For FileObservers class, I make this a static singleton class, because it has one simple function, which is to monitor the change of file. This class is not used for composite design pattern but is part of the observer pattern design.

I have also added client class where the main function remains, and general testing can be done here.

For this maven project, I use Junit4 testing, it can be done through IDE or using the command "mvn test" or the /src level where the pom file is present

