Repositories Virtual Key Application

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GitHub: https://github.com/xxmelar-ksaxx

Project Repository Link: **Project code in GitHub**

NOTE: for the code to run properly, you have to create a folder in your eclipse project folder by the name “DemoRepository”, because the app needs a repository to manipulate the files created by it.

1 - Sprint planning and tasks achieved

1.1 - Sprint goal

The goal is the create a simple small repository application. The quality is the main requirement in this project.

1.2 - Planning meeting

The meting will discuss the following points:

- Define the project goal
- List project main requirements
- List project features
- Discover initial sprint backlog

1.3 - Planning meeting II

- Discover detailed sprint backlog
- Estimating the stores
- List task to do
- Agree of the sprint plan

2- Algorithms

The used algorithms are the following:

1.0 - A constructer

Constructer by the name ”RVK”.
To initialize the application by calling two algorithms:

- One to print the welcome massage
- And another to print the main menu options

1.1 - Three print algorithms

Three algorithms for printing txt in the console:

- First one for the welcome massage.
  By the name “welcomeMsg”.
- And the second one for the main menu options
  By the name “mainOptions”.
- The last one for file manipulation options
  By the name “filesMOptions”.

1.2- Two option selection algorithms

Two algorithms to deal with user option selection in the main and file manipulation menus.

- One method for the Main menu option list, by the name “MOSelector”.
- The other one is for File Manipulation Option list, by the name “FMOSelector”.

1.3 - Two file manipulation algorithms

Two algorithms to deal with files:

- One for crating new file, by the name “addFile”
- Another one for deleting a file by a specified name, by the name “deleteFile”

1.4 - A search algorithm

An algorithm to search for a specific file by a specified name, by the name “showFiles”.

1.5 – Flow chart

Flow of the application. First, the user will see the welcome massage, then the following will appear:

1- The application shows the main options menu.

2- Option to return the file names. Then, return to (1.0).

3- Show the file manipulation options.

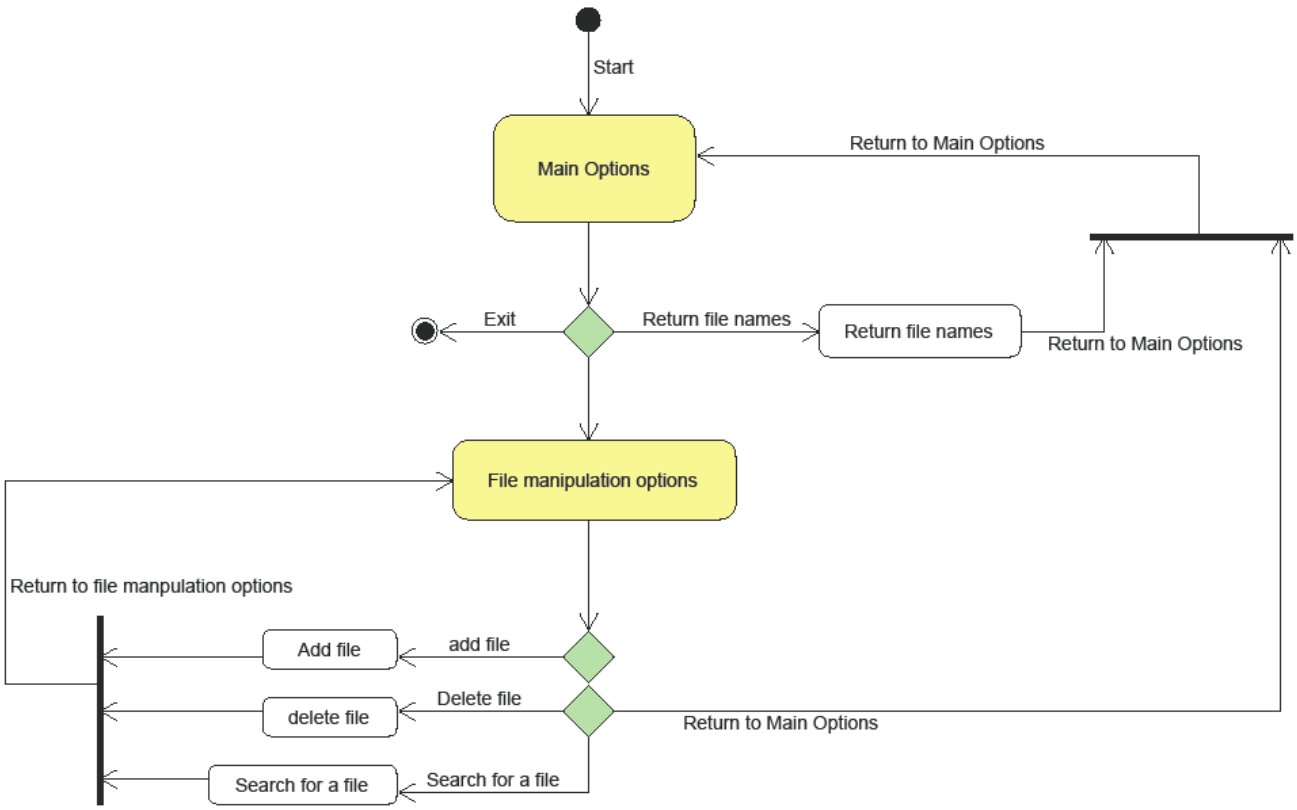
3.1- Add file. Then, return to (3).

3.2- Delete file. Then, return to (3).

3.3- Search for a file. Then, return to (3).

3.4- Return to the Main Menu (1).

4- Exit the program.



3- Core concepts used

- Polymorphism, used in the list selectors. The same code structure is repeated in both of them (Main and File Manipulation menus), but slightly different results are returned.

- Recursion, used many times in this project. For example, it is used to call the two menu lists over and over, instead of using the for loop.

- The Switch concept, also is used to determine the user desired operation.

- Exception handling. With try-catch block, is used to handle the user unexpected inputs, such as, out-of-range menu option, and file manipulation operations.

Conclusion

Simple application for listing and manipulating local repository files. Planning and implementing such an application, provides a good training knowledge for beginner developers. This kind of project let the developer applies various kinds on OOP concepts.