

PROJECT DOCUMENTATION

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GitHub link : <https://github.com/MohanishPingale/Phase1Project1.git>

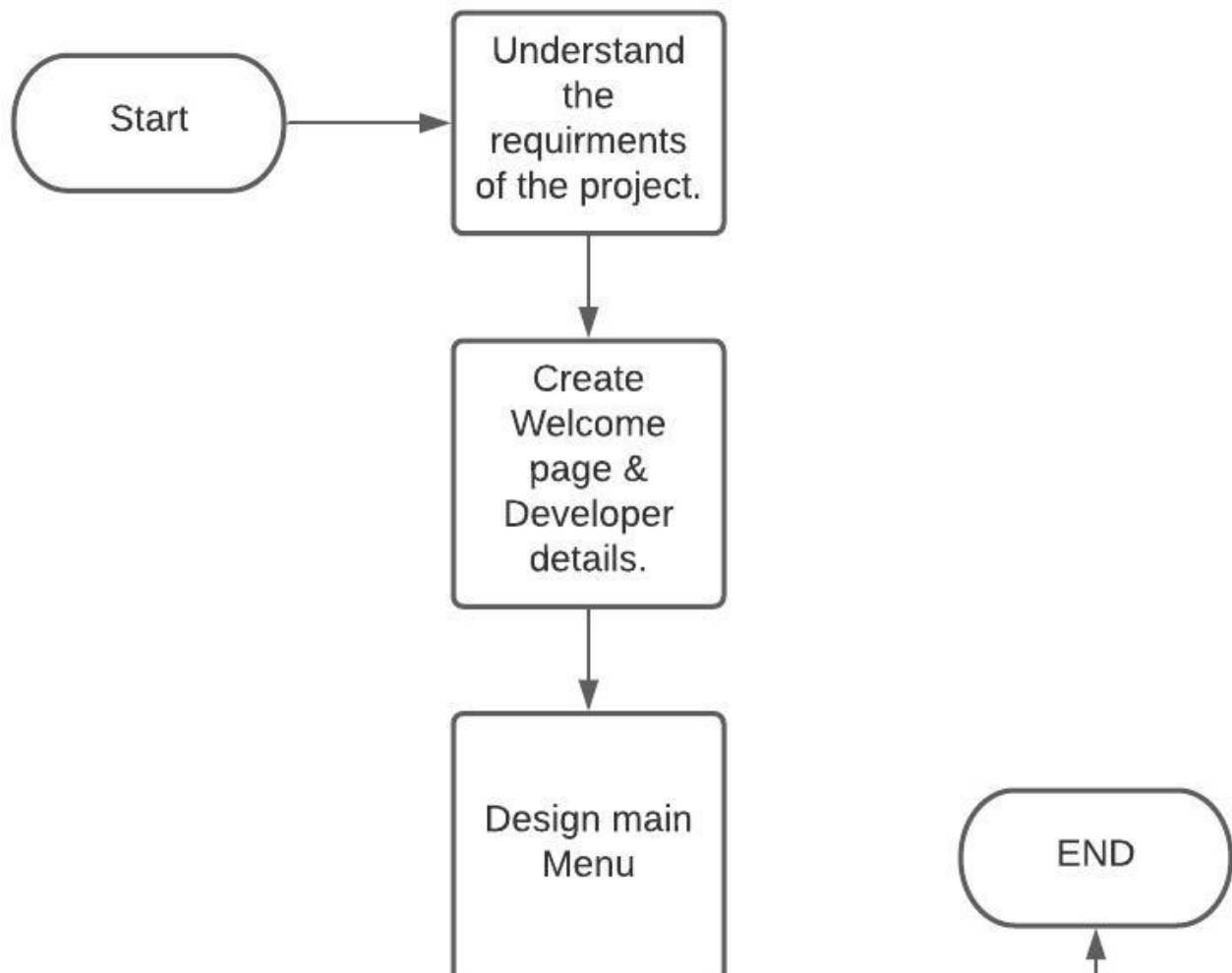
Overview :

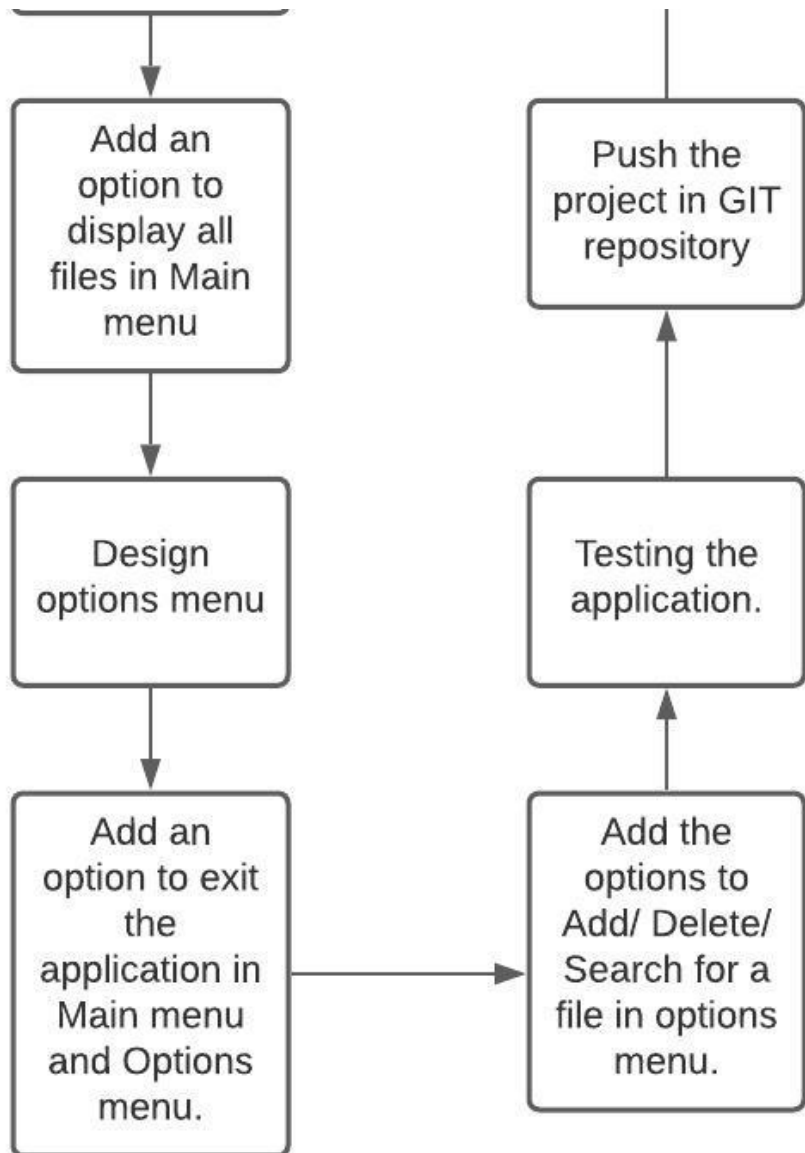
Detailed explanation of the project will be provided in this document.

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1. Flowchart
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1. Flowchart :





(Flowchart Image attached separately)

2. Algorithm :

- Welcome page and developer details are displayed at the beginning.
- Main menu consist of three options:
 - Display all files
 - Go to Options menu
 - Exit the application
- Options menu consist of 6 options:
 - Add a file
 - Delete a file
 - Search for a file
 - Read context if a file
 - Go back to the Main Menu
 - Exit the application
- User input is taken every time the Main menu or options menu is displayed.
- User has to select from the options displayed and enter the number associated with it.

- If user selects option 1 in main menu : all files would be displayed.
- If user selects option 1 in options menu : user would be able to add a file ... and so on.
- The application would not exit unless the user chooses the option to exit the application.
- If user input is invalid, an appropriate error message is displayed and user is given another chance to provide correct input, until correct input is received.
- All files created are stored in a location "D:\\11\\" which can be modified as per the system requirements.
- If user wants to add a file and a file of same name already exists in specified location, user will get an error message.
- User will have to provide with the extension of file name like .txt or .pdf.
- No default extension will be provided.

3. Sprint Planning :

Sprint Planning

Sprint Number	Goal	Week 1	Week 2	Week 3
1 Sprint 1	Understand requirements of the project Create a Flow Chart Design the main menu Add developers details	Flow chart create. Main Menu Design. Developer details add.		
2 Sprint 2	Add option to Display all files in Main menu. Design Options menu. Add the option to exit in main menu and options menu.		Implement option to Display all files in Main menu. Implement options menu. Implement option to exit in main menu and options menu.	
3 Sprint 3	Add to options menu the following algorithms: ADD SEARCH DELETE			Add algorithm implement. Delete algorithm implement. Search algorithm implement.
4 Sprint 4	Additional feature to read the context of file. Push the code to GITHUB			Option to read the context of a file. Move to GITHUB.

(Sprint Planning image attached separately)

4. Java Concepts Used :

- Packages imported are as follows :
 - import java.io.*;
 - import java.util.*;
- Program consists of one Public class Main.
- Main menu and Options menu are separate methods in Public class Main.
- Main menu and options menu take user input from the user, and are surrounded by Try Catch block to catch the InputMismatchException, incase user input is invalid.
- Incase user input is invalid, the exception is handled and the user is given another chance to give a new input.
- Add method uses a Boolean to check if a file with same name already exists in the specified location.
- Add method makes use of public boolean createNewFile() is surrounded by try catch block to handle IOException.
- Delete method makes use of public Boolean delete()
- Search method makes use of public String[] list() and displays the file name.
- Context of File method reads the context of a file by using public boolean hasNextLine(), it throws FileNotFoundException and is surrounded by try catch block.
- Display all files method uses java.util.Collections
- Sort is used to sort the specified list into ascending order, according to the natural ordering of its elements. All elements in the list must implement the Comparable interface.

- Inside Main method only Main Menu is called, since options menu and other operations can only be called through main menu.
- Main menu in Main method is inside a while loop to make sure program does not prematurely exit.

5. GitHub Link :

<https://github.com/MohanishPingale/Phase1Project1.git>

6. Conclusion :

- Successfully implemented the program to Add Search and Delete a file, which also displays the Developer information.
- The additional features such as Displaying context of a file is unique and sets the program apart from others.
- The application would not exit unless the user chooses the option to exit the application.
- If user input is invalid, an appropriate error message is displayed and user is given another chance to provide correct input, until correct input is received.
- If user wants to add a file and a file of same name already exists in specified location, user will get an error message.