

COP701 Assignment 1 Report

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Core Functionality/Modules/Definitions

- File Manager

Description - Offers an interface for all other modules to interact with filesystem. Such that all other modules can work with abstraction to names of markdown articles.

Functions -

- saveTo(article Name,content) // overwrites if already present
- fetchFrom(article Name) // fetches a given file by name returns contents of file
- setDirectory(directory) // where the wiki is stored
- fetchDirectory() // current location of wiki

- Markdown parser

Description - Parses the md file line by line and builds a tree while parsing and finally stores the parsed tree in inoder fashion with metadata as an IDS node.

- parse(article name) // returns **internal data structure** from parser

- Viewer

Description - Extends tkinter.Frame class which displays rendered markdown pages and functionality to switch b/w articles

Functions -

- changeViewerArticle(article name) // internal data structure to tkinter frame object for viewing markdown pages

- Editor

Description - Extends tkinter.Frame class which hosts 2 frames side by side one as a text class and other as a Viewer frame to show rendered page

Functions -

- changeEditorArticle(article name) // changes article open in the editor frame

- Toolbar Manager (Always open in GUI manager and changes as per mode)

Description - Extends tkinter.Frame class which shows navigation bar in GUI hosts following buttons -

- Render button
- Edit Button
- Back button
- Home
- Save

Functions -

- changeMode(int modeNumber) // changes mode

- GUI manager (Manages which frames are open and to go to which files)
Description - Extends tkinter.window and is main window of the applications and houses as well as houses all other modules and offers interfaces to them to influence and update the state of application
 - Assembles tkinter frame objects in a coherent window
- Surfer
Description: Handles back button by maintaining a stack.
 - Handles back button
 - Returns article name for currently open files
- Opening Page
Description -Scrapes the current working directory and saves path of every .md file and generates HomePage.md to set a starting point for the program.
 - generate() - creates autogenerated file "Homepage.md" in and overwrites previous ffile using Filemanager
 - Auto Generates first page which contains links to all pages
- IDS -
Description -Hosts the Data of the md in a parsed manner. A two level tree with a single root and all the text+metadata as children of the root.
Functions:
 - getFrame() - Creates the tkinter.Text representation of the current node and calls this on the children in inorder manner.
 - click() - handles the callback function for clicking on links

Work Division [as per colour above]-

Red - Aditya

Blue - Harsh

Green - Pushpit

3 modes for GUI manager (Important to tell toolbar and frames)

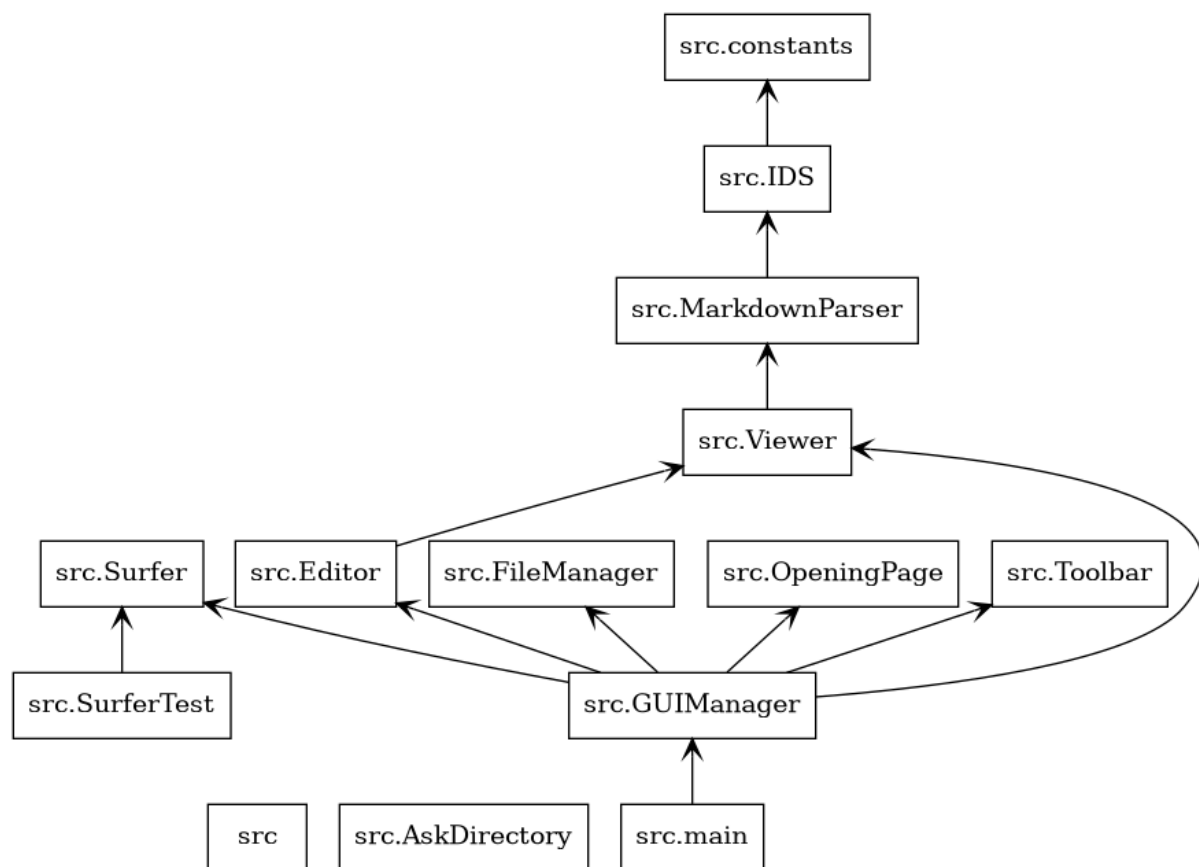
- 0 Opening page (different from viewing as no edit option)
- 2 Editing
- 1 Viewing

Additional Requirements Satisfied:

- Version Control
- Auto Doc

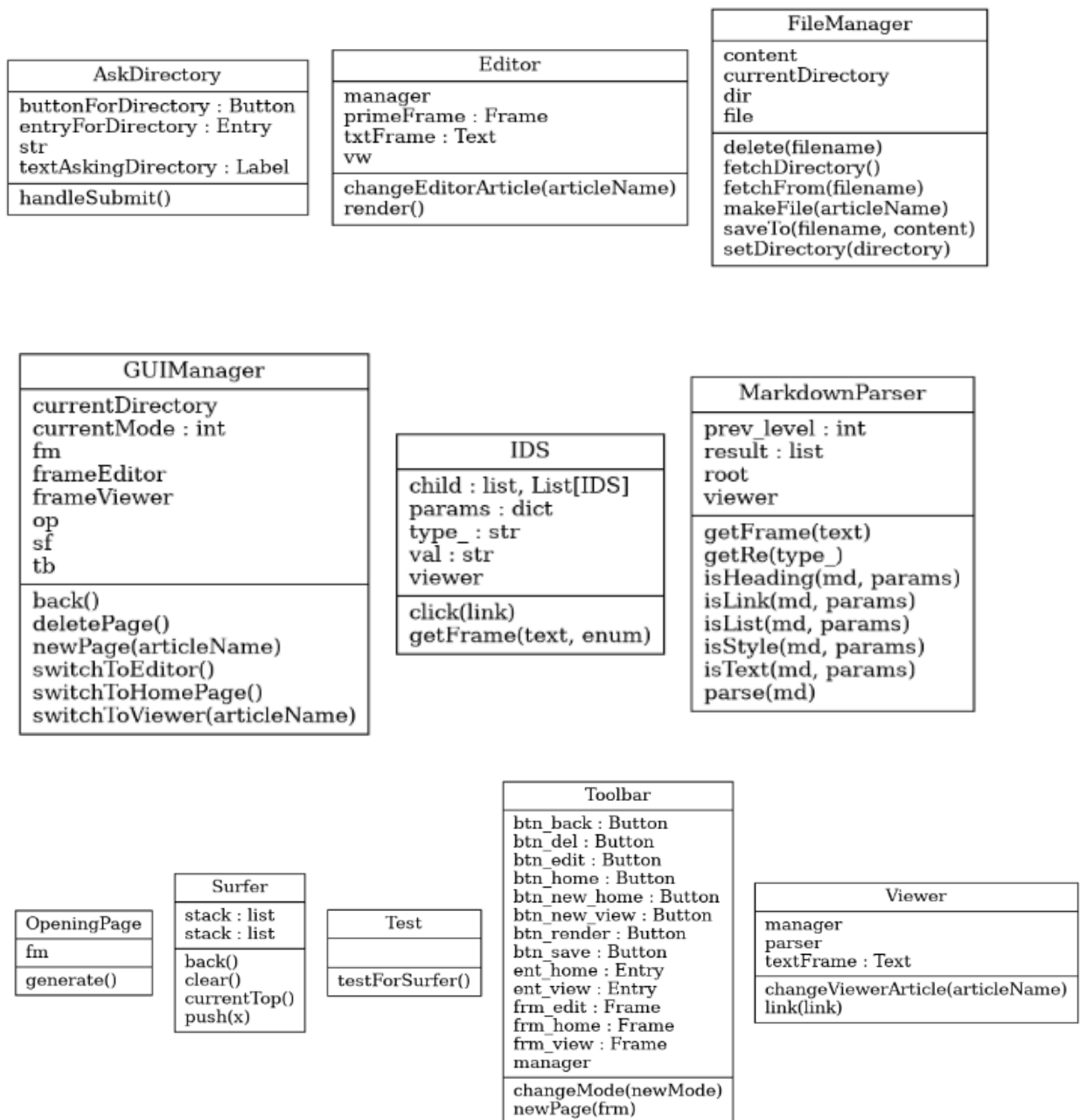
Final Modules and Structures

GUIManager inherits Tkinter.Window and acts as the main module for the product . It handles what is being shown on the active window and offers interfaces to other module's content update methods, meanwhile housing instances of all other modules. The GUIManager operates on 3 working modes : {'Home','View','Edit'} depending upon the current status of the program. The mode influences the elements being displayed. The choice of elements depends upon the current working mode. GUIManager houses Toolbar as it needs to display that on every page. It houses FileManager and Surfer as GUIManager maintains which page to change into and what to save. It interacts with Viewer Object to handle the viewer mode. It interacts with the Editor Object to handle the edit mode. The Editor has another Viewer Object inside it to handle the rendering part in the edit mode. The Viewer has an instance of Markdown Parser, which uses IDS to render the given data.



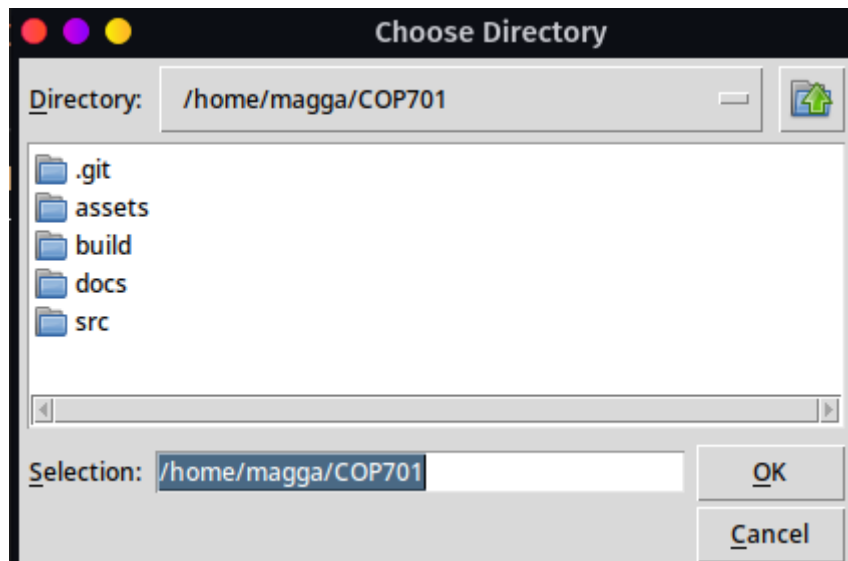
dependency

flowchart

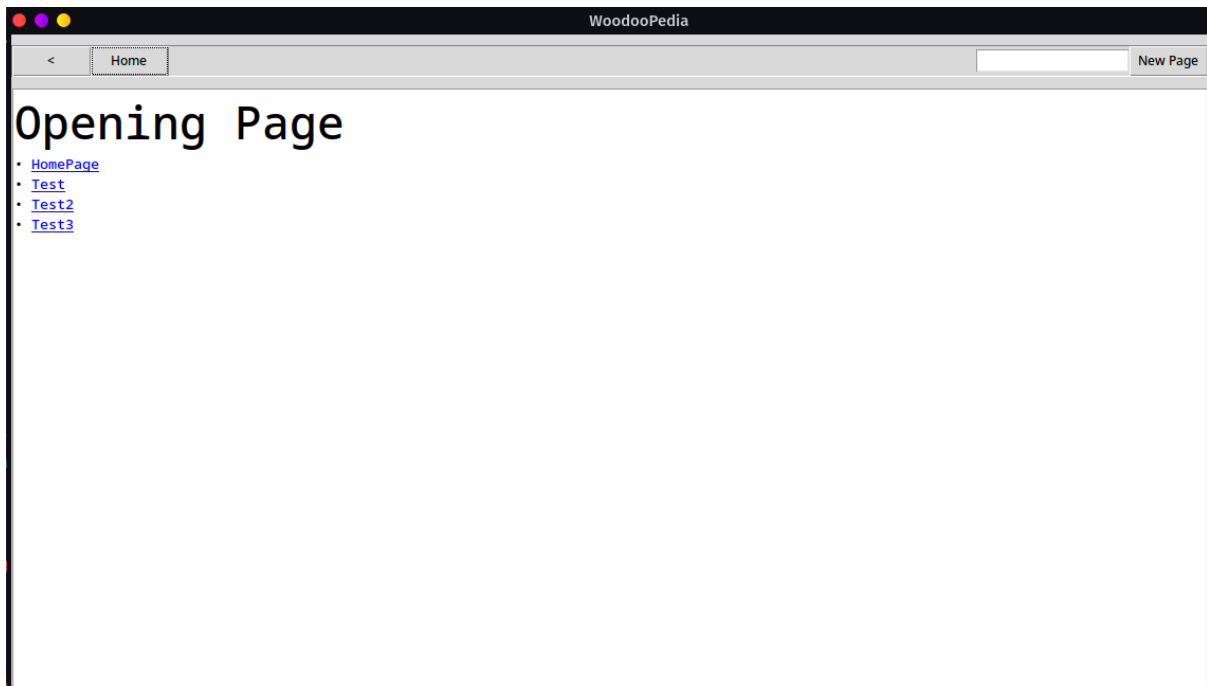


Modules: Member functions and attributes.

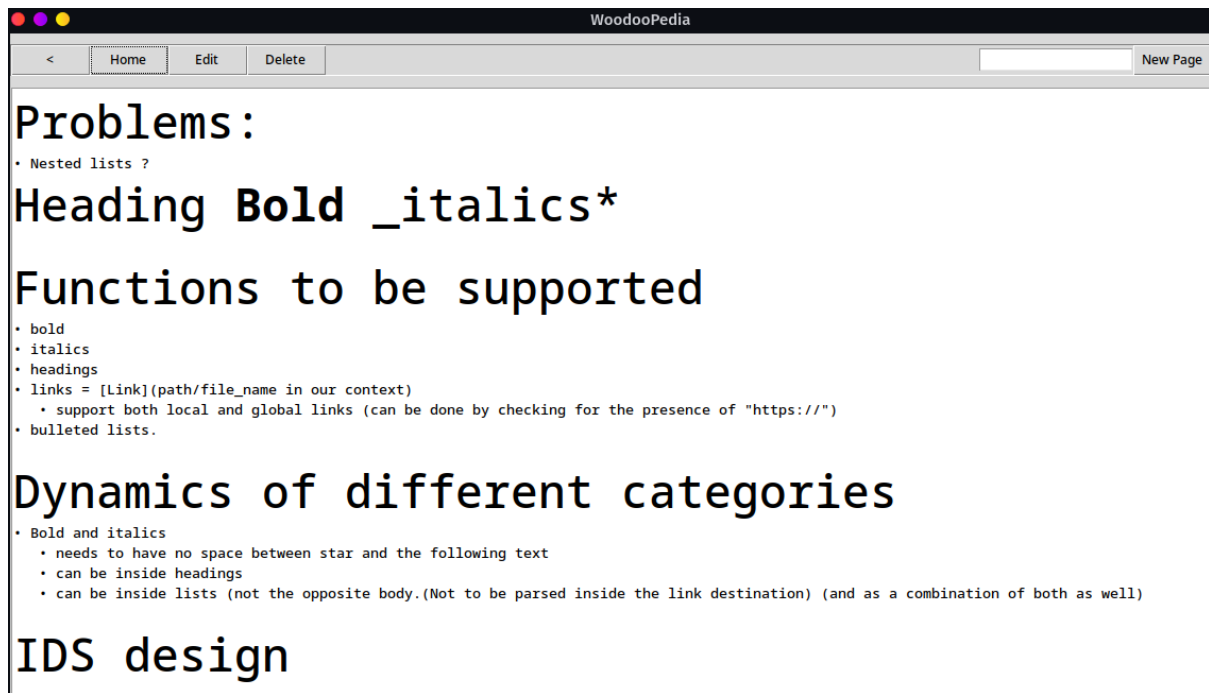
GUI Screenshots



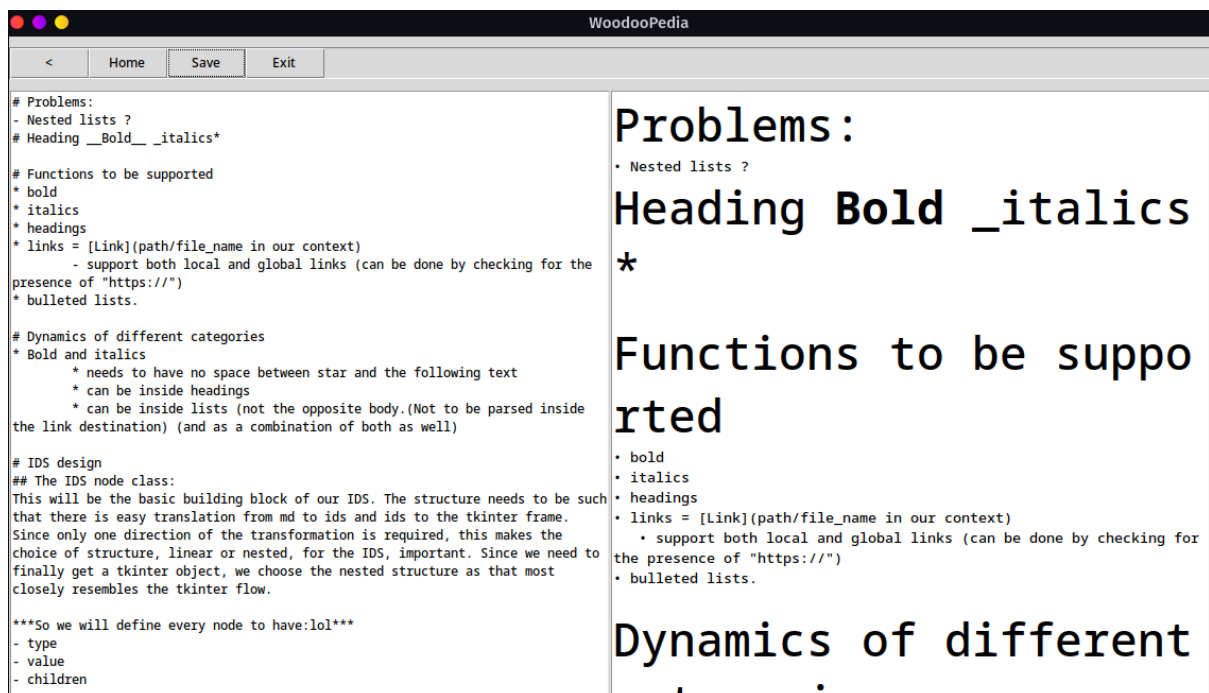
Select Directory Window



HomePage



View Mode for an article



Edit Mode for an article