

3.4 User Interface Design

The purpose of this section is to describe the graphical user interface (UI) of the “text editor” application.

The UI design defines the arrangement of components, interaction patterns, and the mapping between interface elements and system behaviors.

This section uses the previously defined requirements and behavior specifications as the basis for the layout and interaction design.

3.4.1 The main window is the primary workspace where the user performs all core editing tasks.

It contains the following components:

- **Menu Bar** – Provides access to operations such as file management, editing tools, view options, and help.
- **File Switcher Header** – A horizontal bar below the menu bar that shows all open files. Clicking a file name switches to that document.
- **Text Editing Area** – A large editable multi-line text field where users write and modify content.
- **Status Bar** – Displays information such as file name, cursor position (line/column), and feedback messages.

This layout maximizes available editing space while keeping essential controls easily accessible.

3.4.2 Dialog Windows

The application uses several dialog windows to support additional interactions that require user confirmation or file selection.

Open File Dialog

Allows the user to choose a text file from the filesystem.

Behaviour: *Open existing document.*

Save As Dialog

Enables saving the current document under a new name or location.

Behaviour: *Save document as new file.*

Exit Confirmation Dialog

Appears when unsaved changes exist and the user attempts to close the application.

Options include: *Save*, *Don't Save*, and *Cancel*.

About Dialog

Provides basic information about the application, version, and authors.

3.4.3 Preferences Window

The application provides a Preferences Window that allows the user to configure appearance and editor behavior:

- Font selection dropdown
- Dark mode toggle
- Whitespace rendering checkbox
- Word wrapping checkbox

These dialogs ensure safe and controlled execution of tasks that require additional user actions.

3.4.4 Keyboard Shortcuts

To enhance speed and usability, the application includes the following keyboard shortcuts:

- **Ctrl+N** — New Document

- **Ctrl+O** — Open Document
- **Ctrl+S** — Save
- **Ctrl+Shift+S** — Save As
- **Ctrl+Z / Ctrl+Y** — Undo / Redo
- **Ctrl+X / Ctrl+C / Ctrl+V** — Cut / Copy / Paste
- **Ctrl+A** — Select All
- **Ctrl+Q** — Exit Application

Each shortcut activates the same behaviour as its corresponding menu item button.

3.4.5 Visual Layout

The visual layout of the application follows a clean and intuitive design similar to common text editors:

- The **menu bar** is positioned at the top.
- The **text editing area** occupies the central and largest portion of the window.
- The **status bar** is placed at the bottom of the window.

This arrangement follows standard usability principles and ensures a familiar experience for users.

The interface adapts automatically to window resizing, maintaining readability and accessibility.