**1.Project Topic:TEXT EDITING**

the project that we have decided to do will be an application software that is akin to a modern text editor. We shall be using Java 2 Standard

Edition(version 5.0) in order to develop the software project because we feel that it gives us all the tools to use the object oriented approach

required to create the project. We will be implementing/programming in either Netbeans or Eclipse Integrated Development Environment,both of

which provide excellent tools for editing,testing and debugging the project.

**2.Definition:**

A text editor is a type of program used for editing plain text files.

Text editors are often provided with operating systems or software development packages, and can be used to change configuration

files and programming language source code.

**3.A Brief History:**

Before text editors existed, computer text was punched into punched cards with keypunch machines. The text was carried as a physical

box of these thin cardboard cards, and read into a card-reader. Magnetic tape or disk "card-image" files created from such card decks

often had no line-separation characters at all, assuming fixed-length 80-character records. An alternative to cards was punched paper

tape, which could be punched by some teleprinters (such as the Teletype), which did use special characters to indicate ends of records.

The first text editors were "line editors" oriented to teleprinter- or typewriter-style terminals without a display. Commands (often a

single keystroke) effected edits to a file at an imaginary insertion point called the "cursor". Edits were verified by typing a command

to print a small section of the file, and periodically by printing the entire file on a printer. On some line editors, the cursor could

be moved by commands that specified the line number in the file, text strings (context) for which to search, and eventually regular

expressions. Line editors were drastic improvements over keypunching. Some line editors could be used by keypunch; editing commands could be taken from a deck of cards and applied to a specified file.

When computer terminals with video screens became available, screen-based text editors (sometimes termed just "screen editors")

became common. One of the earliest "full-screen" editors was O26 - which was written for the operator console of the CDC 6000

series machines in 1967. Another early full-screen editor is vi. Written in the 1970s, vi is still a standard editor on Unix

and Linux operating systems. Vi and Emacs are popular editors on these systems. The productivity of editing using full-screen

editors motivated many of the early purchases of video terminals.

**4.About the project:**

For editing plain text files, a program called text editor is used. A plain text file is shown and edited by displaying all

the characters the way they are involved in the file. The control characters of the used character set are the sole characters

employed for mark-up. In real, it is newline, tab and form feed. ASCII is the most frequently used character set because of more

frequent use of plain text files for programming and configuration and less frequent use of them for documentation (for instance,

detailed instructions, user guides) as compared with the past.

Text Editor is software that edits plain text and comprises of Java Swings and AWT. Swing was a result of the shortcomings in

Java’s original GUI subsystem: the Abstract Window Toolkit. AWT is a fundamental set of controls, windows and dialog boxes

that aid a usable graphical interface.

**5.Objectives of the Project:**

The application that we will be designing will felicitate a user friendly approach to use a text editor. the whole application will be in

a window(for which we may have to use abstract window tool kit of the Java Application Programming Interface).

We may also have to use advanced features such as Java Swings,which is part of the Oracle Java Foundation Classes(JFC).Swing is the primary Java GUI widget toolkit.

It is part of Oracle's Java Foundation Classes (JFC) — an API for providing a graphical user interface (GUI) for Java programs.The project requires

that we master many typical features of Java such as Graphical User Interface(GUI) (which is required for interaction withe the user,File

Handling(which is required for all the file manipulation tasks that the application handles,and graphics(which is required for us to deal

with painted characters,changing the size of characters,changing the font,etc).

GUI will also play a major part in designing the taskbar with all the options.It will also be crucial for us to develop drop down menus

required to implement the various functionalities of a text editor.

**6.Challenges Faced:**

Although any text editor looks simple on the outside,developing it as a software product is an equally arduous and challenging task.

The many hurdles we will face during the course of the project include being able to set the exact cartesian co-ordinates of the cursor

implicitly as and when the user types in his characters.Also,even seemingly simple tasks like pressing backspace to delete erroneously

entered characters involve a lot of coding because we as the programmers need to check if the cursor has reached the beginning of a new

line,whether there are no more characters left in the editor,the "painted characters" to be removed from the data base,the new cartesian

co-ordinates of the cursor.The above example was given to just provide a glimpse into how inherently complicated ,such seemingly simple

tasks are.Doing such a project makes us appreciate the time and effort that developers put into such applications to provide such

seemingly simple and mundane functionalities. Given that we are aquainting ourselves with a language that we have never learnt before

to develop such a project adds to the challenge.Other major challenges include integrating the mouse pointer into the text editor

which, simple though it may seem, invloves a LOT of work.

SOFTWARE ENGINEERING

PROJECT SYNOPSIS

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