Kathmandu University

Department of Computer Science and Engineering

Dhulikhel, Kavre

A Project Proposal

On

Protean Word

[Code No: COMP 206]

(For the partial fulfillment of 2nd Year/ 1st Semester in Computer Science)

Submitted by:

Trilochan Kandel (62)

Sujit Gautam (64)

Pawan Khatri (32)

Prajina Pradhan (46)

Submitted to:

Mr. Nabin Ghimire

Department of Computer Science and Engineering

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Cover Letter

March 24,2021

Respected Sir,

This proposal has been submitted for the partial fulfillment of the COMP 206 course, which consists of a group project to be submitted under the directions and monitoring of a supervisor. Following are the topics covered under this proposal.

- Introduction to our project…….
- Requirements…….
- System Description and Work Breakdown……

Thank you for giving us this opportunity.

Sincerely,
Trilochan Kandel (62)
Sujit Gautam (64)
Pawan Khatri (32)
Prajina Pradhan (46)

Abstract

Protean, an English word for ‘able to change easily’, is a python GUI application with an objective of providing simpler and more meaningful platform for the users to share to edit and beautify their texts. This Protean Word is a program that allows you to open, view, and edit plain text files. Unlike word processor, our project doesn’t add formatting to text, instead focusing on editing functions for plain text. Text editors are used by a wide variety of people for a wide variety of purposes. The project can be used offline. We plan to make a software which will help user to perform file operation, cut and paste, make text attractive as per their need. This project will help group members to work better as a unit and make a project made with the collective ideas of the group members. The project will begin with making of basic skeleton and module division between group members. The expectation of the project is to create a software that anyone, who desires edit a text and make it elegant, could use. This project will help the members to use and understand mainly Python, which is one of the booming programming languages in the global market. The project Protean Word will be like other text editing software’s, where the user can view, inspect different artistic contents and apply it to make their text elegant.

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Acronyms

GUI: Graphical User Interface

IDE: Integrated Development Environment

OS: Operating System

VS: Visual Studio

Chapter 1: Introduction

Protean Word is a text editing software which will help users perform various operations as per their need. All they need to do is make a file write a text and they as get started with much ease. Text editor is intended to open and save text files containing either plain text or anything that can be interpreted as plain text, including the markup for rich text or the markup for something else.

1.1: Background

A text editor is a type of computer program that edits plain text. Such programs are sometimes known as "notepad" Before text editors existed, computer text was punched into cards with keypunch machines. Physical boxes of these thin cardboard cards were then inserted into a card-reader. Magnetic tape and disk "card-image" files created from such card decks often had no line-separation characters at all, and assumed fixed-length 80-character records. An alternative to cards was punched paper tape. It could be created by some teleprinters (such as the Teletype), which used special characters to indicate ends of records.

The first text editors were "line editors" oriented to teleprinter- or typewriter-style terminals without displays. 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. In 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 major 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. Some common line editors supported a "verify" mode in which change commands displayed the altered lines. software, following the naming of Microsoft Notepad. Text editors are provided with operating systems and software development packages, and can be used to change files such as configuration files, documentation files, etc.

1.2. Objectives

- File Operation
- Cursor Motion
- Cut and Paste
- Search and Replace
- Customize text
- Undo and Re-do

1.3 Motivation and Significance

We find that in the field of text document editing software, there is much more improvement to be done. The first motivation is to make the program very simple for people to use. So trying to build something called WYSIWYG (What You See Is What You Get), which mean that people can change the visual style of writing (e.g. bold, italics), by clicking on buttons, when in other programs like WordPerfect, people have to add special 'codes' to change the style of writing.

Text editing program is rather simple program made using GUI. As we are living in a modern society people feel more comfortable writing paragraphs and words in computer rather than a notebook. The main reason is so that they can edit written text whenever they like and save the document using very low memory and get access to them anywhere and anytime.

We use simple new, open, save features along with the other features to make the program simpler and more reliable to people using this program without any problem.

Chapter 2: Related Works/Existing Works

LibreOffice Writer

LibreOffice Writer, like OpenOffice, is a completely free and open-source product that offers word processing, support for .doc and .docx file formats, and all the tools the average Microsoft Word user will need in a word processor.
LibreOffice Writer and OpenOffice Writer are similar in a lot of ways: Interface style, file format support, lack of cloud integration and real-time collaboration, and general word processing features. Both are solid choices for those looking for a free alternative to Microsoft Word, and selecting one over the other largely comes down to preference.

One aspect of LibreOffice stands out, and it isn't what's in the app--it's the community-driven nature of the platform. Collaborating with users and developers to improve the product is front and centre on LibreOffice's website, and that focus has grown LibreOffice into a thriving community of users and coders that keep making it better.

Microsoft Word

Microsoft Word or MS-WORD (often called *Word*) is a Graphical word processing program that users can type with. It is made by the computer company Microsoft. Its purpose is to allow users to type and save documents.

Similar to other word processors, it has helpful tools to make documents.

- Spelling & grammar checker, word count (this also counts letters and lines)
- Speech recognition
- Inserts pictures in documents
- Choice of typefaces
- Special codes
- Web pages, graphs, etc.
- Tables
- Displays synonyms of words and can read out the text

- Prints in different ways

MS Word is a part of Microsoft Office, but can also be bought separately.

Google Docs

Google Docs, which is easily the most popular Microsoft Word alternative on this list, is free to everyone with a Google account. If you want the basic features of Microsoft Word, you don't need to look any further than Google Docs--it does all your basic word processing needs, and it is tightly integrated with Google Drive and other products.

Since everything is saved in Google's cloud, you don't need to worry about losing your work--Docs autosaves after every single keystroke, so in the event of a crash you should be able to pick up right where you left off, down to the letter. Google Docs also supports Microsoft Word's .doc and .docx formats, so you shouldn't have any problems importing and editing those. One of its best features for business users is real-time collaboration. If you share a document with another Google user, both of you can be in the document at the same time, see the other user's cursor position, watch what they're typing, and chat to each other as well. It's a great collaboration tool that stands out among word processors. Advanced users may find the features lacking--it really is a bare-bones word processor.

Chapter 3: Procedure and Methods

For completion of our software, we have created certain procedure which we will be following strictly. They are:

1) Study and research- Firstly, we have planned to do some research related to front-end and backend development needed for our project by visiting similar kind of websites, by consulting with seniors and teachers.

2) Front-end Development: Front End part i.e.; GUI of website is the first thing that will be noticed by user and is responsible for having first impression on a user. So, we will be making our software attractive and user-friendly using Tkinter, which the most popular GUI application making platform for python.

3) Back-end Development: Back End part is the backbone of our website. Without it our software will not work functionally. We will be doing backend programming with the help of Python and MySQL, where MYSQL is used for designing database and Python will perform tasks requested on database such as collect form data, and other text editing works.

4) Testing and Debugging: It is not 100 percent sure that our software will be built as perfect as we have desired. There can be some syntactical and logical errors. Our software might not be as user friendly we have expected. So, we will be performing tests and debugging to solve it. Also, we will allow a few of our friends to use our software and we will be taking their opinions so that we can improve our front-end part.

5) Documentation: After completion of our above listed task, we will prepare work report and present our project.

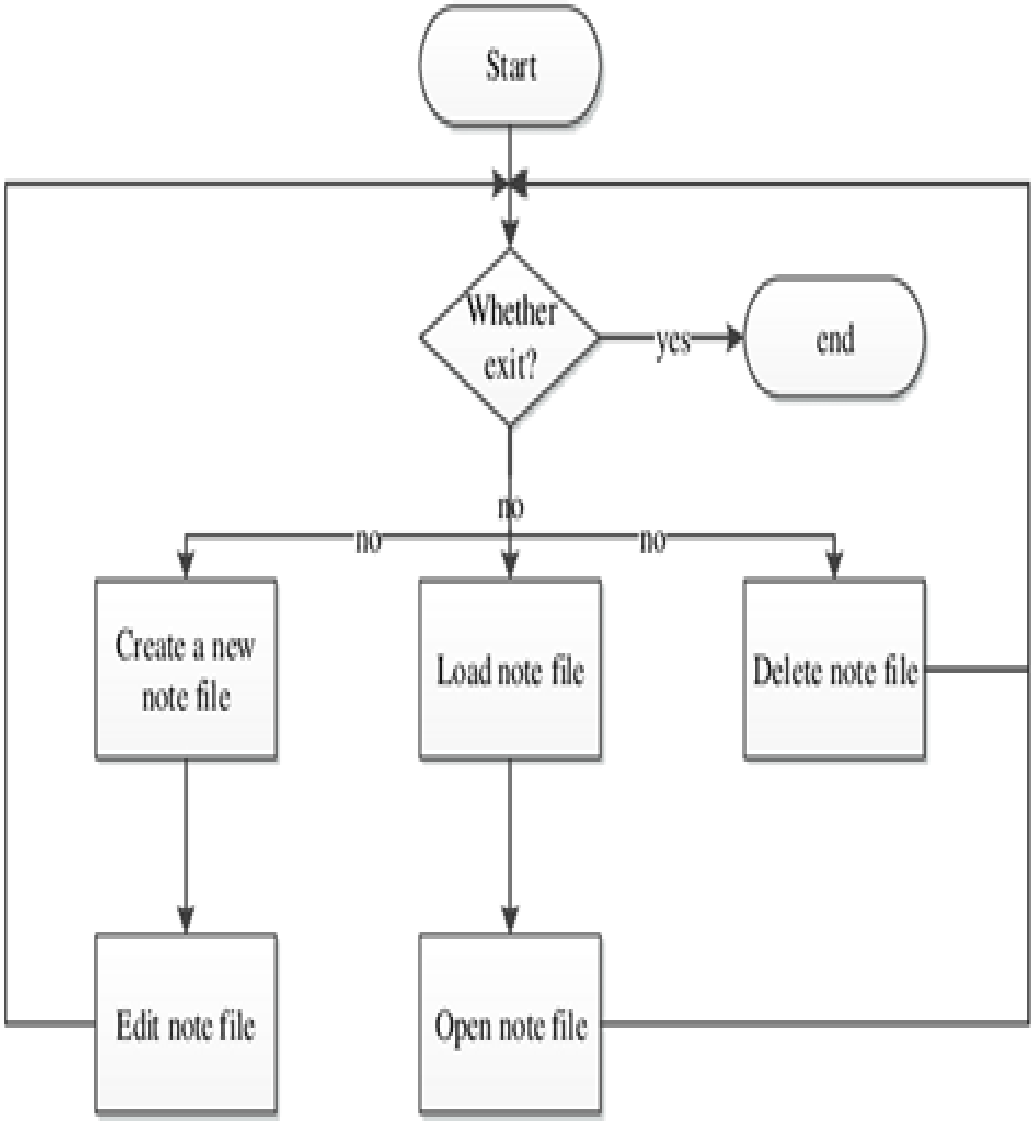

Figure 3.1. 1 System flow Chart

Chapter 4: System Requirement Specification

4.1 Software Specification

4.1.1 Front End Tools: Tkinder

4.1.2 Back End Tools: Python, SQLite

4.1.3 Text Editor: Sublime Text/ VS Code

4.1.4 OS: Windows XP+ above

4.2 Hardware Specification

Since the software will be simplistic, sophisticated hardware is not required. Any modern PC capable of running a modern OS should suffice.

Chapter 5: Project Planning and Scheduling

The work breakdown and time in weeks required to complete the specific task are shown as in the Gantt chart below: -

Task	1	2	3	4	5	6	7	8	9	10	11	12
Research and study	■	■	■									
Graphic Designing				■	■	■						
Core Programming						■	■	■	■	■		
Program testing										■	■	
Documentation											■	■

Table 5.1. 1 Ghantt Chart

Tasks:

1. Research and Study
2. Graphic Designing
3. Core Programming
4. Program Testing
5. Documentation

References and Bibliography

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