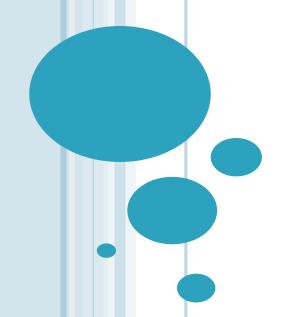
DEBRE MARKOS UNIVERSITY DEBRE MARKOS INSTITUTE OF TECHNOLOGY SCHOOL OF COMPUTING

SOFTWARE ENGINEERING

System programming group assignment



Group 3

Name	$\overline{\mathbf{ID}}$
Abrham Bitew	1235
Abebew Mengstie	1233
Hana Zeranbesa	1264
Aychew agegnew	1246
Yohannes Endeshaw	1291

CONTENTS

- Text editors
 - Introduction
 - Overview of the Editing Process
 - Editor Structure
- Debugging System
 - Interactive Debugging Systems
 - Debugging functions and capabilities
 - What type of debugging system used
- User Interface
 - Overview of User interface
 - Create a User Interface
 - List User Interface Criteria(UIC)
 - Evaluate your interface based on the (UIC)

SUBLIME TEXT EDITOR: INTRODUCTION

- Sublime Text Editor is a **full featured** Text editor for editing **local files** or a **code base**. It includes various features for editing code base which helps developers to keep track of changes. Various features that are supported by Sublime are as follows
 - Syntax Highlight
 - Auto Indentation
 - File Type Recognition
 - Sidebar with files of mentioned directory
 - Plug-in and Packages
- Sublime Text is a fast, powerful and easily extensible code editor. like Visual Studio code and NetBeans.

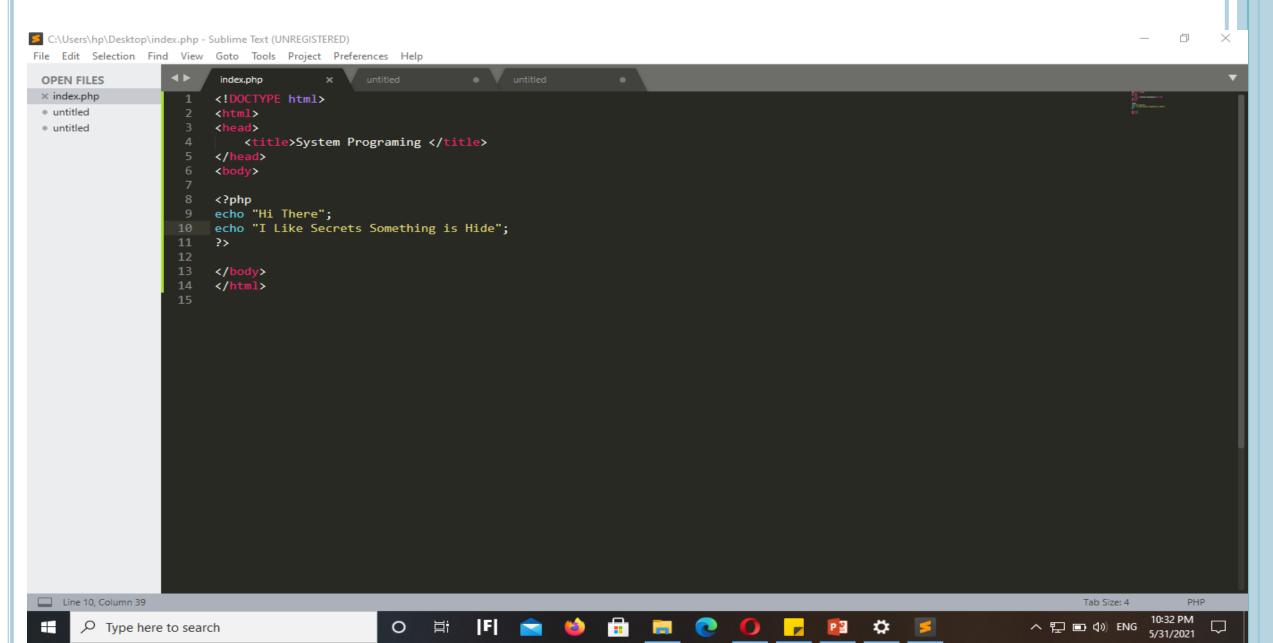
Sublime Text Editor: Overview of the Editing Process

- An interactive editor is a computer program that allows a user to create and revise a target document.
- Document includes objects such as computer diagrams, text, equations tables, diagrams, line art. Here we restrict to text editors, where character strings are the primary elements of the target text.
- Document-editing process in an interactive user-computer dialogue
 - Select the part of the target document to be viewed and manipulated.
 - Update the view appropriately.
 - Determine how to format
- We Can
 - Insert, delete, replace, move, copy, cut, paste, etc...
 - Traveling:-locate the area of File.

..CONT

- Sublime Text is a Type of Screen editors
- Screen editors: In this type of editors, the user is able to see the cursor on the screen and can make a copy, cut, paste operation easily. It is very easy to use mouse pointer.
- We can **not** insert image or videos in text like MS Word but we can open image in Sublime Text

SUBLIME TEXT EDITOR :- EDITOR STRUCTURE



SUBLIME TEXT FEATURES:-

- "Goto Anything," quick navigation to files, symbols, or lines
- "Command palette" uses adaptive matching for quick keyboard invocation of arbitrary commands
- Extensive customizability via **JSON** settings files, including projectspecific and platform-specific settings
- Python-based plugin API
- Compatible with many language

Interactive Debugging Systems

- An interactive debugging system provides programmers with facilities that aid in the **testing and debugging of programs**
- Debugging is the process of **finding errors** and **bugs** in the given code and **fixing them**.
- Sublime editor includes various **plugins** that have debugging features, which helps in finding errors easily.

Example

• Sublime uses **Sublime Xdebug debug** plugin for debugging the PHP files and scripts.

DEBUGGING FUNCTIONS AND CAPABILITIES

- A Debugging system should also provide functions such as **tracing** and **trace back**.
- Tracing can be used to track the flow of execution logic and data modifications.
- The control flow can be traced at different levels of detail procedure, branch, individual instruction, and so on...
- Trace back can **show the path** by which the current statement in the program was reached.
- It can also show which statements have modified a given variable or parameter.
- The statements are displayed rather than as hexadecimal displacements

What type of debugging system used?

- Debugging is the process of finding errors and bugs in the given code and fixing them. **Sublime editor** includes various plugins that have debugging features, which helps in **finding errors** easily.
- Sublime Text Editor has a plugin **Web Inspector** for debugging **JavaScript** code. It helps us to set breakpoints
- Sublime Text Editor has a plugin **Xdebug** for debugging **Php** code. It helps us to set breakpoints
- Etc..
- Both Xdebug and Web Inspector are **plugin**.

OVERVIEW OF USER INTERFACE

- A user interface is the means by which a human and a computer system **interact**.
- User interfaces are composed of one or more layers including a human-machine interface (HMI) using physical input devices such as keyboards, mice, and game pads as well as output hardware such as computer monitors, speakers, and printers.
- The **goal** is to enable the user to **operate** and **control** the machine in order to **effectively complete** a **task** and receive feedback that makes the decision-making process easier.

LIST USER INTERFACE CRITERIA(UIC)

• Simplicity:

- User Interface design should be simple
- Less number of mouse clicks and keystrokes are required to accomplish this task

• Consistency:

- The user interface should have a more consistency
- We should apply typeface, style and size **convention** in a consistent manner to **all screen**.

• Prevention:

• A good user interface design should prevents users from performing an **inappropriate task** and this is accomplished by **disabling** certain elements under certain conditions

• Forgiveness:

- This quality can encourage users to use the software in a **full extent**.
- Designers should provide users with a **way out** when users find themselves **somewhere they should go**