

CS-102: PSCP – SEMESTER PROJECT

NATURAL LANGUAGE COMMAND INTERFACE

NATLAN

- Project Title:

Natural Language Command Interface (NatLan)

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- Introduction of Project:

NatLan is basically a command prompt, which can purpose multiple tasks that a normal command prompt cannot. Unique features include currency conversion, display weather, etc.

- What makes this project unique:

NatLan is designed to do multiple things to make life easier for the user. No need to open the shortcut when you can simple say “run chrome.exe” or no need to open a weather page manually when NatLan can do it for you.

- Tools Used (e.g. CodeBlocks, CMD, TCC, etc):

- CMD
- Sublime Text Editor
- TCC

- Structures Used (e.g. strings, loops, filing, etc):

- Strings
- Loops
- Filing
- Complex Conditions
- Switch Case
- Pointers

- Flowchart(s):

FULL IMAGE ON: <http://i.imgur.com/xKu9zLv.png>

- Brief working of the project:

Example Case:

1. Output: "Enter Command:"
2. Input: "Show me the weather please."
3. Output: "Enter City/Country:"
4. Input: "Karachi"
5. Output: "Showing weather in Karachi." (opens browser)

- Screenshots of the execution:

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----- WELCOME TO NATLAN -----
- NATURAL LANGUAGE COMMAND INTERFACE -

To bring up commands, type "commands"
Hello! I am NatLan. How may I assist you?

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Enter command:
-> Compile a file.

Enter the name of the file:
-> test2.c

Enter directory of .c file
-> same directory.

Compiling...
A subdirectory or file SavedFiles already exists.
where file will be compiled.

1 file(s) copied.

Compiled and saved test2.c to SavedFiles folder.

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Enter command:
-> quit

Goodbye. Have a nice day!
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- User Manual (How to use the project, valid I/O, etc):

NatLan asks for commands, these commands can be in any shape as long as they have the programmed keywords.

These keywords are,

- **quit**: Quits NatLan.
- **compile using gcc/tcc**: Compiles the file. Uses tcc as compiler by default unless you specify it to use gcc. Must input address of the .c file when asked, or simply write "same" in lowercase if file is in the same location as NatLan.
- **go to**: Asks for the address of a webpage or local drive, and opens it in the default browser or Explorer. Must include full address in case of web address (e.g. www.google.com)

- **weather:** Prompts for a city, then opens a webpage to show the weather in that city.
- **pc name:** Displays the name of the machine.
- **date/day:** Displays the current date, month and year.
- **time:** Displays the current time.
- **ip:** Displays your machine's internet protocol information.
- **math:** Prompts for operation and operands and gives appropriate result.
- **add/subtract/multiply/divide:** Prompts for operands and gives appropriate result directly from main window.
- **roll a dice:** Rolls a dice and displays face value.
- **display pc name:** Displays the hostname.
- **convert currency:** Converts currency from rates given in .dat file.
- **what is my ip?:** Displays your IP info.

There are a few more “fun” commands. These are left for you to explore yourself! (e.g. What is your name?). The program will keep asking you for commands until you tell it to quit.