

SPL 1 Project Proposal Form, 2022
Institute of Information Technology (IIT)
University of Dhaka

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Project Description:			
<h3>Idiosyncratic Linux Shell</h3>			
<p>The project aims to handle some under-the-hood features and algorithms that actually work inside a shell. How are the commands executed properly after entering the terminal window? How are extra features like keeping the history of commands and showing help handled? All of this can be understood by creating an idiosyncratic shell.</p> <p>A shell is a special user program that provides an interface for the user to use OS services and accept human-readable commands from a user and convert them into something which can be understood by kernel – a computer program that is the core of an OS, with complete control over everything in the system managing file, process, I/O, memory, etc.</p> <p>Linux OS = Kernel + GNU system utilities and libraries + Other management scripts + Installation scripts</p> <p>What tasks are done after a command is entered?</p> <ul style="list-style-type: none">✓ Command is entered, and if the length is non-null, keep it in history.✓ Parsing: Parsing is the breaking up of commands into individual words and strings✓ Checking for special characters like pipes, etc, is done✓ Checking if built-in commands are asked for.✓ If pipes are present, handle pipes.✓ Executing system commands and libraries by forking a child and calling <code>execvp</code>.✓ Printing current directory name and asking for next input.			
Languages or Tools to be used: C, C++ Visual Studio Code, Codeblocks, Git, Github, Gitbash			
Supervisor's Name: <u>DR. SUMON AHMED</u>			
Signature of the supervisor: _____			
Date: <u>January 05, 2022</u>			

