

CSCE 5640

Operating System Design

Project Proposal

Linux shell in c

Group-8

Overview

Generally, we all are familiar with terminal Linux systems. But here, the question is, how will it process the commands? In this project, we will be understanding the internal working mechanism of the terminal i.e., How a command is processed, in the terminal, how to add extra features, and the working mechanisms of some algorithms. Using C language, we will build a Linux terminal program that reflects some of the main features of the original Linux terminal.

Objective

The objective of this project is to implement some important functionality of Linux terminal so that we will get a better idea about how a command is executing internally, like how the command string is preprocessed and then passed to respective functions and adding new functionalities like history command, help commands, and so on. We will be using C language for implementation and the windows operating system for execution and testing.

Team size and Team Members:

Our team is of 4 people

Name	Student ID
• Satish babu nalajala	11524982
• Dunnala Naveen	11551660
• Ishitha Konda	11592291
• Hari prasad Reddy sheelam	11601562

Project Plan:

Task divisions for the team members:

Student Name	Task
• Satish babu nalajala	Analysis and requirements gathering.
• Dunnala Naveen	Implementing Parsing, and processing string
• Ishitha Konda	Implementing commands handling
• Hari prasad Reddy sheelam	Testing and Documentation

Due date for subtasks:

Subtask	Due Date
Analysis and requirements gathering.	12/04/2022
Implementing Parsing, and processing string.	12/06/2022
Implementing commands handling.	12/9/2022
Testing	12/10/2022

Experimental environment:

Programming language: C language

Operating system: Windows or Linux

Test cases:

Unit testing, Integration testing and some test case like checking results for commands like ls, history, pwd, help, exit, and piping commands.