

Team D Terminal Application User Guide

TEAM D MEMBERS:

1. Jordan Chimeremeze Nwabuike jn22316086@utg.edu.gm
2. Isatou Begay Panneh ip22316076@utg.edu.gm
3. MUSTAPHA B.C SOWE ms22316051@utg.edu.gm
4. Abdoulie Njie an22216005@utg.edu.gm

Installation and Setup

1. Requirements

- Python 3+
- PyQt6
- Operating System: Windows, macOS, or Linux

2. Installation Steps

```
```bash
Install dependencies
Install python by going to python.org and download it
pip install PyQt6
```
```

3. Running the Application

```
```bash
python index.py
```
```

Basic Usage

Terminal Interface

The terminal provides a familiar command-line interface with:

- Command prompt showing current directory
- Command history navigation
- Copy/paste support
- Clear screen functionality

Keyboard Shortcuts

- `Ctrl+L`: Clear screen
- `Up Arrow`: Previous command
- `Down Arrow`: Next command
- `Home`: Jump to start of command
- `Ctrl+C`: Copy selected text

Available Commands

File Management

1. Create File

```
``bash
# Create a new empty file
touch filename.txt
```

```
# Expected output:
File created: filename.txt
``
```

2. Write to File

```
``bash
# Write content to a file
write test.txt "Hello, World!"
```

```
# Expected output:
Content written to 'test.txt' successfully
``
```

3. Read File

```
``bash
# Display file contents
read test.txt
```

```
# Expected output:
Content of 'test.txt':
```

```
-----
Hello, World!
```

...

4. Delete File

```
```bash
Remove a file
rm test.txt

Expected output:
File 'test.txt' deleted successfully
```
```

Directory Operations

1. Create Directory

```
```bash
Create a new directory
mkdir project

Expected output:
Directory created: /path/to/project
```
```

2. Change Directory

```
```bash
Move into directory
cd project

Move up one level
cd ..

Move up multiple levels
cd ...

Expected output:
Changed directory to: /new/path
```
```

3. List Directory Contents

```
```bash
```

# List files and directories

ls

# Expected output:

Directory contents:

```

Type Size Modified Name

DIR - 2024-11-22 10:30 project
FILE 123B 2024-11-22 10:31 test.txt

...
```

#### 4. Remove Directory

```bash

Remove empty directory

rmdir project

Remove directory with contents

rmdir -r project

Force remove without confirmation

rmdir -f project

Expected output:

Directory 'project' removed successfully

```

## System Commands

### 1. Clear Screen

```bash

Clear terminal

clear

or

cls

```

### 2. Show Current Directory

```bash

```
# Display current path
pwd
```

```
# Expected output:
/current/working/directory
...
```

3. Help

```
```bash
Show available commands
help
```

```
Expected output:
Available Commands:
```

```

clear or cls : Clear the terminal screen
cd <dir> : Change directory...
[Additional commands listed]
...
```

## Error Handling

The terminal provides clear error messages for common issues:

### 1. File Not Found

```
```bash
read nonexistent.txt

# Output:
Error: File 'nonexistent.txt' not found
...
```

2. Directory Not Empty

```
```bash
rmdir nonempty_dir

Output:
Error: Directory 'nonempty_dir' is not empty
Use 'rmdir -r' to remove directory and its contents
...
```

### 3. Permission Errors

```
```bash  
write /system/file.txt "test"
```

Output:

```
Error writing to file: Permission denied  
```
```

## Best Practices

### 1. File Operations

- Use quotes around file names containing spaces
- Back up important files before deletion
- Use ``rm -r`` with caution

### 2. Navigation

- Use ``pwd`` to verify current location
- Use relative paths for nearby files
- Use absolute paths for distant locations

### 3. Command History

- Use up/down arrows to recall commands
- Modify previous commands for similar operations

## Troubleshooting

### 1. Terminal Not Responding

- Check if a long-running operation is in progress
- Use Ctrl+C to copy text if needed
- Restart the application if necessary

### 2. File Operation Errors

- Verify file/directory permissions
- Check available disk space
- Ensure valid file names

### 3. Display Issues

- Adjust window size if content is truncated
- Use clear command to refresh display

- Check system font settings