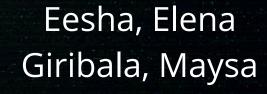


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Name of the guide: Mr. Sandy Joseph













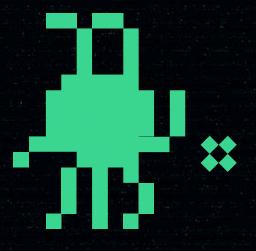


01	Introduction to the	04	Functional
	project		requirements
02	Description of the	OF	Cyctom footures

O2 Description of the O5 System features project idea and implementation

O3 Scope of the mini O6 Software requirements









- **Relevance of the Domain:** Mastery of Linux commands is crucial for system administration, software development, and automation.
- **Brief Overview of the Application:** "Terminal Velocity" is a web-based platform that teaches users essential Linux commands through interactive tutorials and practical exercises.

Need for the Application:

- Helps users overcome the intimidation of the Linux command-line interface.
- Provides a gamified learning experience with level-based progress.
- Real Linux command execution ensures hands-on practice.
- Unlock levels and track progress, motivating users to advance from basic commands to advanced system management.





• To design and develop a web platform that uses gamified learning to teach and practice essential Linux commands, helping users gain proficiency in system management and automation through interactive challenges.

• 1:

 To create an interactive, web-based learning tool for mastering Linux commands, aimed at beginners and intermediate users in the tech field.

• 2:

 To develop a gamified platform for teaching Linux system administration, focusing on practical command-line skills through progressive levels and hands-on exercises.



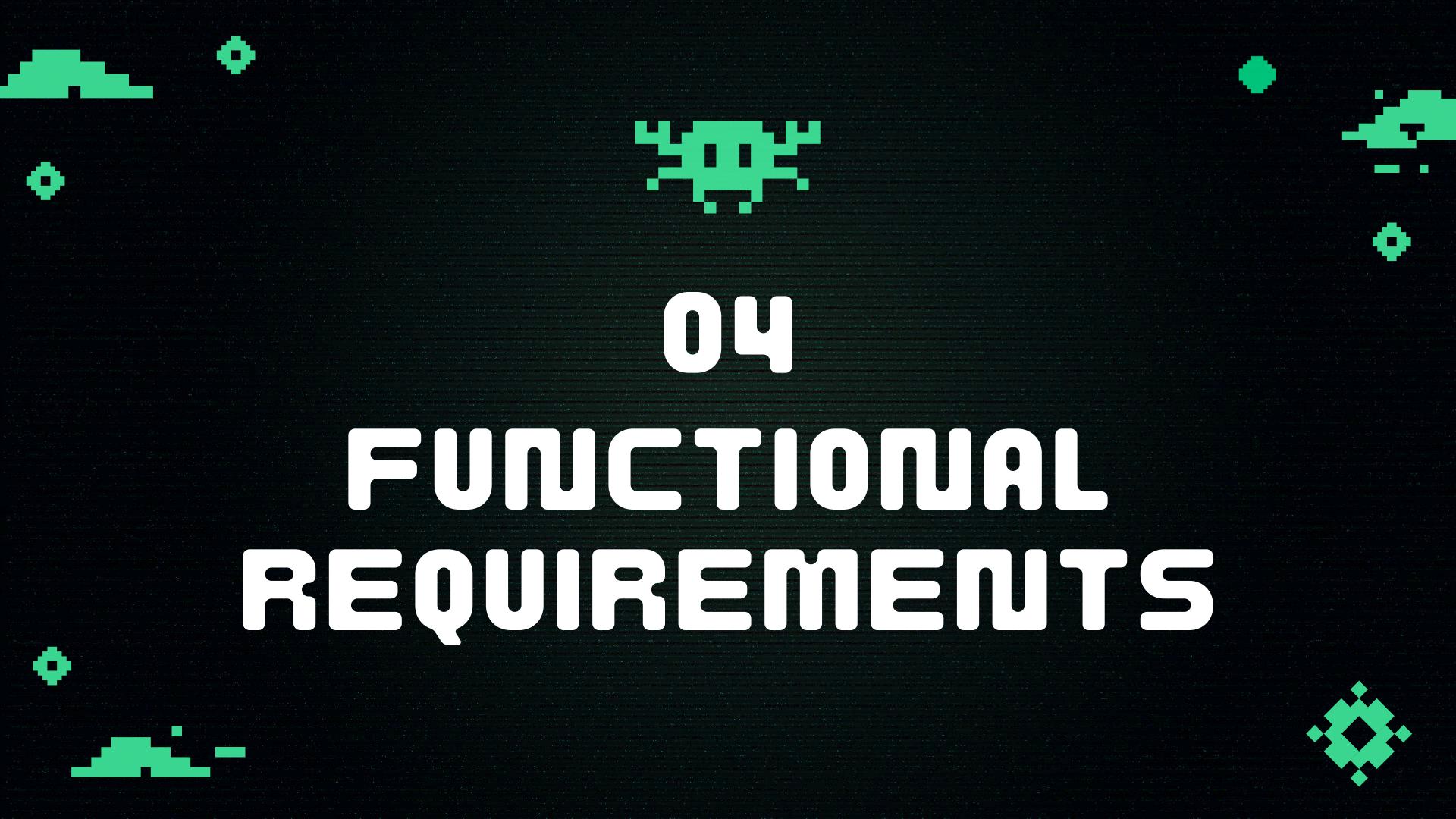


Within the Scope:

- Interactive tutorials and challenges focused on mastering essential Linux commands.
- Users progress from basic to advanced Linux system administration tasks.
- Immediate feedback and validation of user inputs to reinforce learning.
- Level unlocking system, and badges to motivate users.

Out Of Scope:

- The project will not provide officially recognized certifications for Linux expertise.
- The platform won't support simultaneous collaboration between multiple users in a single session.





User Authentication and Profile Management

- User Registration: create accounts with unique usernames and passwords.
- Profile Management: Users can view and update their personal information.

Gamified Learning Experience

- Level-Based Learning: structured learning path with levels.
- Interactive Challenges: practical exercises to practice Linux commands.
- Rewards: Users unlock new levels, and earn badges as they complete tasks and challenges.



Real Command Execution

 Command Line Interface (CLI): Execute real Linux commands for hands-on practice.

User Progress Tracking

 Progress Icon: Display user progress, uniquely demarcated using colors and comments.

Help and Support

- Help: explanations and tips for commands and tasks.
- Documentation: detailed documentation for each level, explaining the theoretical concepts behind the tasks.





Structured Learning Experience

 Provides tutorials and challenges with progressive difficulty levels, helping users learn Linux commands step-by-step.

Real-Time Command Execution

Users can execute real Linux commands within a controlled environment,
reinforcing learning with hands-on practice.

Level Unlocking System

 Users unlock new levels as they complete tasks and challenges, advancing from basic commands to more complex system management operations.



Instant Feedback and Validation

 Immediate feedback after executing commands, helping users understand mistakes and reinforce correct usage.

Progress Tracking

Displays user progress for each level.

Rewards

Users earn badges as rewards for completing levels and mastering specific
Linux commands, increasing engagement and motivation.



Command List

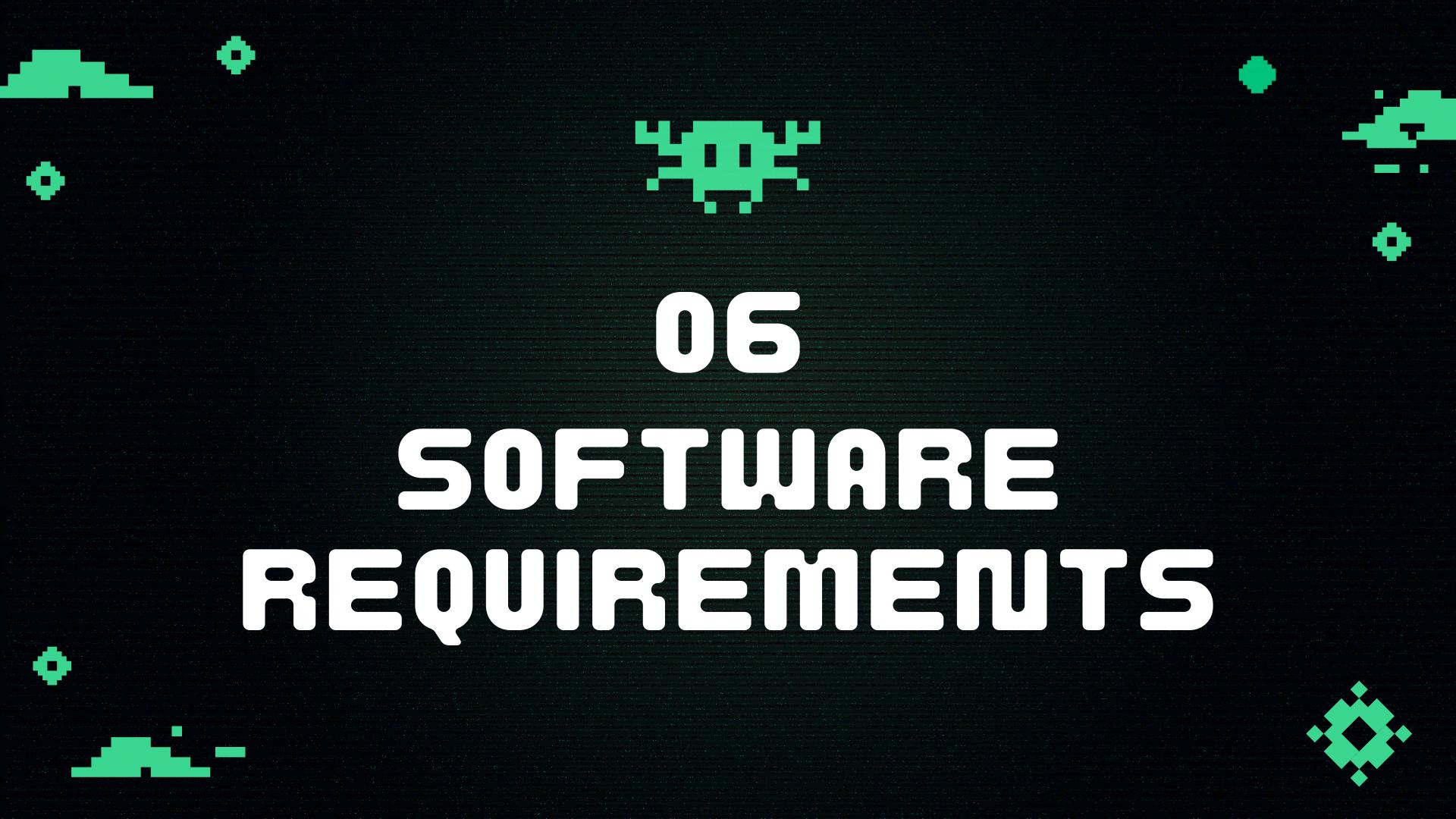
 Offers a comprehensive guide to each Linux command, with it's explanation and syntax directly within the platform.

User Profiles & Customization

 Each user has a personal profile, where they can track their learning progress, and customize preferences.

Story-Based Learning

 Engages users with narrative-driven challenges to contextualize Linux commands in real-world scenarios.





- Frontend: HTML, CSS, JavaScript
- Backend: Python (Django)
- Database: Firebase for user data and progress tracking
- Command Execution: Javascript
- Version Control: Git





- "Terminal Velocity" transforms Linux command learning into an engaging, gamified experience.
- Combines real-time command execution with narrative-driven challenges for immersive learning.
- Features level-based progression, interactive scenarios, and rewarding systems to maintain motivation.
- Helps users transition seamlessly from basic command usage to advanced system management tasks.
- Makes the Linux command line accessible, practical, and enjoyable for learners at all levels.

