**Chapter 1: Introduction**

* Problem Statement
* Goals:
  + Background/context for problem to be solved.
  + Motivate readers by showing problem significance.

The importance of linux skills.

* Devops
* Software engineering
* Cloud computing
* Cybersecurity

To show the importance of a skill, you look at the impact and current market demand. "The rapid growth" – can you prove this phrase? How is proficiency in Linux connected to this?

You can start with a context – technological era. See if you can get news reports of issues related to linux skill issues. Talk about the software development boom. See if you can show any decline in expertise.

The limitations of traditional learning methods.

What is the current learning gap?

Make a problem statement.

**Key Terms**

Key terms.

[Goal: To lay the background and explain the technical terms (+ examples)]

* CTF
* PBL
* KLC

**Related Work**

Goals:

* Literature review.
* Related products/systems.
* Pain points of traditional methods of studying technical stuff.
* What is the CTF model?
* What are the applications and usefulness of CTF?
* Why is yours needed to the ones similar to yours?
* Pros and cons of existing software?
* What pros am I picking up?
* What cons am I addressing?

**Proposed Solution**

Goal:

Summarise contributions, end product and functionality.

How does the proposed ctf-based, gamified approach address the concerns in an innovative way?

What is the CTF model?

Why does CTF work?

Conclusion:

A plan for the rest of the document: What to expect from each chapter.

**Chapter 2: Requirements Analysis**

Outline procedure for requirement analysis.

Identify users/stakeholders.

Describe use cases.

Enumerate high quality detailed requirements.

[Enquiries about whether the idea can be adopted – shows that you spoke to potential users.]

**Chapter 3: Architecture and Design**

Present system overview and architecture.

Architecture should be specific to the project.

Clear mapping of design to requirement analysis.

Document each module design.

Add diagrams.