**Chapter 3**

**Problem Description and Specification**

**3.1 Problem Description**

This project aims to allow students of CS103 to further study the topic of natural deduction by verifying their proofs on a web-based application. The student should be able to enter their proof line-by-line and process the student’s proof then return feedback on where the student is erroneous in sufficient detail in a simple and attractive manner – in a way that encourages learning, and therefore promotes useful learning. When the application is used properly, the student should be able to gain a better understanding of both why they were wrong and natural deduction.

**3.2 Requirements**

As the application is to be web-based, web-based technologies are mandatory. The application will accept the `