

Chapter 2 – Analysis

2.1 - Chapter Introduction

The process of identifying the underlying problem and comprehending the problem domain from a jumble of facts and figures is known as analysis. The purpose of analysis is to provide a complete, consistent, and unambiguous image of the system. Also, what should the system supply to meet all user requirements. Requirements Engineering is another name for this procedure. The system can be designed with the help of analysis.

2.2 - Fact Finding Techniques

Fact-gathering procedures are information-gathering strategies used in system analysis to properly define and comprehend system requirements. The following strategies were primarily employed:

1. Interviews
2. Observation
3. Existing Documents Analyzing

2.2.1 – Interviews

The initial technique utilized to collect and establish system requirements, as well as clarify and confirm those needs, was an interview. In order to effectively address and weigh the inputs of each interviewee, the interviewer must first comprehend the perspective of each interviewee.

The following is the interview schedule that was used.

Date	Interviewee	Position	Interview Duration
23/10/2021	Mr. Samudu Kannangara	Owner	40 minutes
23/10/2021	Mr. Upali Kannangara	Stock Keeper	30 minutes
23/10/2021	Mr. Thamara Kannangara	Technician	40 minutes
25/10/2021	Mr. Susith Sewikrama	Delivery Manager	20 minutes
25/10/2021	Mr. Chamara Perera	Technician	30 minutes
27/10/2021	Miss. Kalpani Dinusha	Customer	20 minutes
27/10/2021	Mr. Sanaka Kumara	Customer	10 minutes

2.2.2 – Observation

Observation is a fact-finding technique in which system analysts observe how individuals perform tasks and activities during site visits. This is an excellent approach to learn what end users go through in their day-to-day processes, and it gives you a lot of insight into the business process.

2.2.3 – Existing Documents Analyzing

Analyzing existing papers is a key strategy for acquiring requirements. When building a user-friendly system, evaluating the papers and reports of an existing system can help. Solid information and facts are usually collected by studying existing papers, which helps to corroborate and validate the requirements gathered through other methods.

2.3 - Existing System

Customers used to come into the store and convey their needs to the technician who built their computer under the old system. Customers arrived at the shop, handed over the defective item or computer to the hardware professionals, and then waited in their restroom until the job was completed. To take online orders, they currently utilize a phone-based and WhatsApp-based order system. There are no other options than bank transfers, and the customer must send a legal transaction paperwork to confirm the order. Customers are not given accurate delivery information due to a lack of appropriate delivery information.

2.4 - Existing System Use Case Diagrams

There were numerous downsides to the paper-based technique.

- It was discovered that data was repeating.
- Data that is unidentifiable owing to illegible handwriting.
- Data was lost because of misplacing the recording materials.
- It takes a long time.
- Manual computations are required.

- Data security is lacking.
- More manpower is required.

The following are the existing system's High-Level Use Case Diagrams for the modules listed.

2.4.1 - Existing Documents Analyzing

