

Chapter 1

Introduction

Our project was created to better the lives of those who need a simple, easy to edit program that manages a warehouse purely in data from the perspective of shippers and receivers of items. Our goal was to make it a more updated language with better flexibility as well as understandable user interfaces that are easy and quick to edit.

We decided to go for a simple approach to the project and manage all databases in one major page, but invoices in another for the receiving and shipment portions. As a team there were major advances in our project as it is an application for us in an internal company.

We can generate and print invoices, save them as a PDF to send, and easily manage the information so you can create new invoices of the same kind if there were need to adapt to any mishaps within the company. The status of the project is done for our portion and can only be expanded into a more beautiful product. This simple and easy program is flexible enough to do far more than it currently does. This project is powerful for the data it manages.

1.1. Statement of the Problem

Start this section by introducing your chosen client: what kind of business/organization they are, what specialization they are focusing on. Then tell the other basic information such as when they had started, who is the head or the one in charge, and where it is located.

The client was Ukay Nationwide, a white-glove furniture delivery company who needed an application started that can potentially update their current system. The system they are focusing on is a system that receives and ships furniture and need basic functions that are essential to the process, such as making an invoice and storing customer data as well as inventory data. Our mentor and product owner was Aydin Danaci working for the Miami location of Ukay Nationwide: Furniture Delivery.

The main issue was the far and beyond outdated code language and outdated user interface. The product was hard to work with as the company needed to consistently train their employees to use the software. Our basic approach was to use something that could also be edited fairly simply. “We had this system since the ‘90s, to give you guys an idea of what we’re working with”, to paraphrase our product owner Mr. Danaci.

Some smaller issues were that a lot of the product didn’t have readily available information and needed the information to be fetched in a rather convoluted way versus having everything be more compact and readily available.

This project was of great importance to us. As a team we conquered designing and creating a simple user interface and a power code using C# to obtain all the information necessary and also be able to create an invoice with it, and store that invoice for later usage. This opens a great opportunity for Ukay Nationwide to get the productivity they deserve.

1.2. Overview of the Current State of Technology

Technology has made these sorts of organizations produce easy documentation for customers and companies alike. From the technology being used before, it was well made and great for its time but simply too complicated to update and benefit itself from proper management as the output of effort was far greater than the reward.

The program which Ukay Nationwide had utilized became fairly excessive in its loading speed and crashed all too many times within a day. The system also went offline often as it did not have enough efficiency to have its hardware withstand the labor. The processing power of machines is far greater than it once was but that did not say to us that it had to be that slow either way, so we understood the company’s state of technology.

Our product owner is now aware of changes that can be made and how much simpler these changes are.

1.3. Objectives

1.3.1. General Objectives

- To create a system that is modern in its UI and functionally efficient in its processing speed.

This solution is a prime solution due to the ease of use for Windows Forms Apps and C#, a language that is powerful and flexible in many fields.

1.3.2. SPECIFIC OBJECTIVES

- Resolve the intense resource usage
 - This was a must as the system was all too slow from what we witnessed.
- Create modern UI with ease of use for minimal training.
 - The UI was fairly convoluted and dense in its environment leaving strain and also far more inputs than required to fill and process documentation.
- Implement invoices for the receiving and shipment part of the company
 - This was quintessential to finishing the project and was our main goal – to still have the main functionality.

1.3.3. Scopes and Limitation

Back End Scope

- A Login Screen – Simple login requirements for a company structure.
- A Main Menu – Functional navigation for different forms.
- A Database Manager – The main hub that can manage multiple databases of choice.

- Invoice Generator – A Location to plug information as you receive it for customers in order to generate an invoice.
- Invoice Page + Print System – Quintessential for printing and creating PDFs for invoices to send to customers and print for documentation.

Front End Scope

- Buttons – Prompts and buttons that have instructions are far easier to manage.
- Direct Database Editing – So you don't have to edit multiple times and continuously call information inefficiently.

LIMITATIONS

- Time Constraints
 - Time was an issue as it was a semester's workload.
- Databases
 - Implementation of Azure required out-of-pocket purchasing and there was no budget thus the database is local for now.
- Additional Pages
 - There was not much time to add more functionalities for quality of life and may require further expanding on and work.