

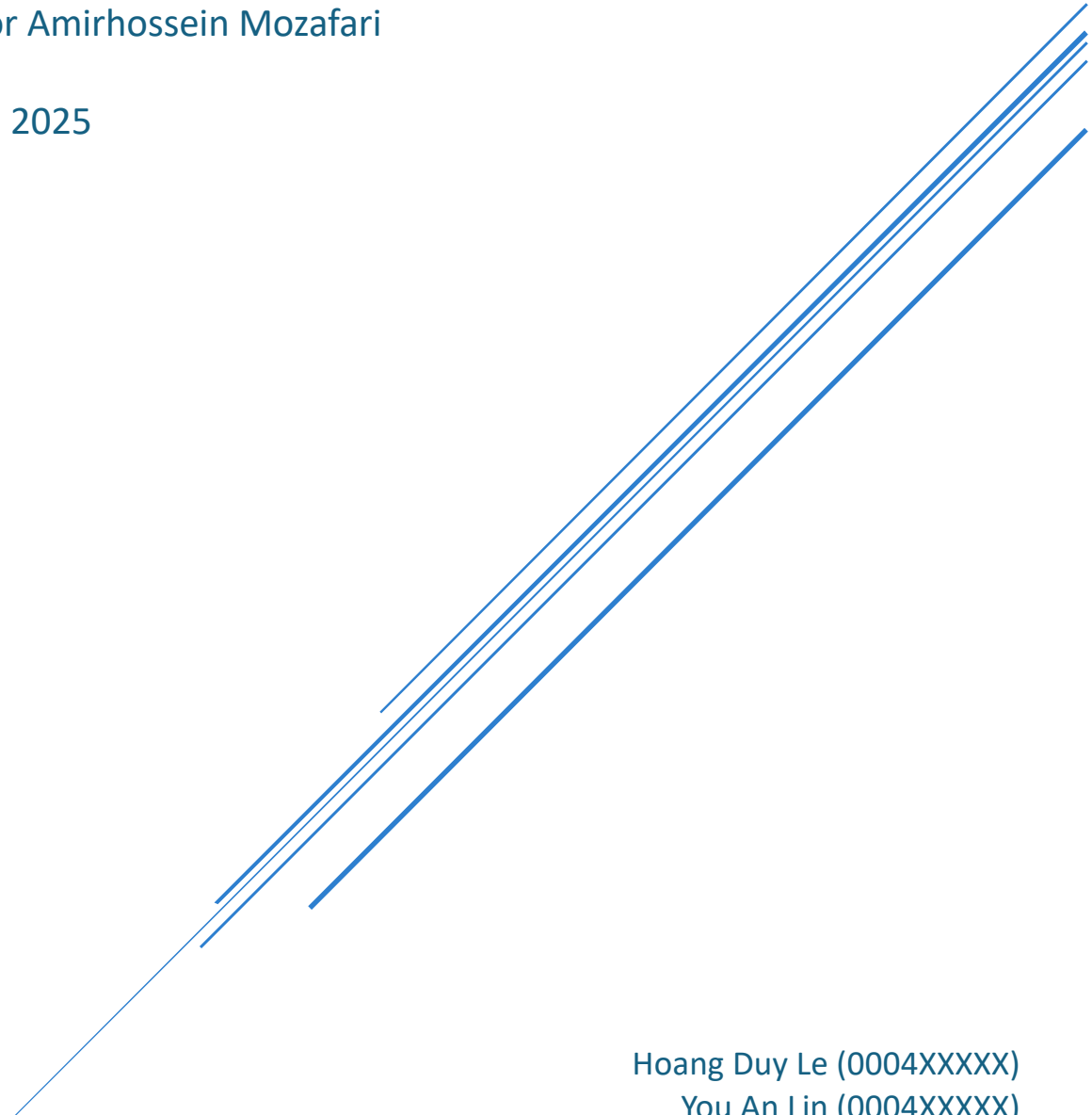
FINAL PROJECT

Database Application

Department of Computer Systems Technology
VCC Community College – Downtown Campus
CSTP 1201 – Intro to Database Mgmt Systems

Professor Amirhossein Mozafari

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Hoang Duy Le (0004XXXXX)
You An Lin (0004XXXXX)
Jianhua Yu (0004XXXXX)
Alice (Yee Sin) Yu (000488835)

CSTP1201 Final Project Explanation

Project Overview

The database application is designed to manage operations for a Korean food restaurant. Built with a MySQL database and Tkinter interface, it provides tools for order processing, inventory management, and customer tracking.

Core Features

1. Data Management

- **Normalized Database:** 10 interconnected tables designed to 3NF standards
- **Complete CRUD Operations:** Create, read, update, and delete functionalities for all entities
- **Referential Integrity:** Foreign key constraints maintain data consistency

2. User Interface

- **Dual-Purpose Navigation:** Search tab for queries and Modify tab for data manipulation
- **Tab-Based Organization:** Logical grouping of related functions
- **Form-Based Entry:** Consistent data entry forms with appropriate validation

3. Key Business Functions

- **Order Processing:** Track orders from creation to completion
- **Inventory Control:** Monitor stock levels and manage supplier orders
- **Employee Management:** Track staff information with hierarchical relationships
- **Customer Relations:** Store customer information for personalized service
- **Financial Tracking:** Record payments with multiple payment methods

4. Technical Implementation

- **MySQL Database:** Robust relational data storage with appropriate constraints
- **Python & Tkinter:** Desktop application with intuitive navigation
- **Modular Design:** Separation between UI, business logic, and data access

5. Business Value

- **Operational Efficiency:** Streamlined workflows reduce administrative time
- **Data Accuracy:** Validation ensures data consistency and reliability
- **Improved Service:** Fast access to customer and order information
- **Inventory Control:** Real-time stock monitoring prevents shortages
- **Decision Support:** Foundation for data-driven business management

6. Documentation

- **Entity-Relationship Diagram:** Included the EER diagram shows tables and their relationships
- **GitHub Repository:** Contains all the source code, SQL files, and additional documentation

This project demonstrates our understanding of database design principles, application development, and real-world business processes in a cohesive solution for restaurant management.

CSTP 1201 - Intro to Database Mgmt Systems
Final Project EER Diagram

