



# **Assessment Title**

## **Warehouse Management System** **(WMS)**

**Professor: Paul Laird**

**university name: Dublin Business School**

**Module Title: Programming for Information Systems**

**Module Code: B9IS123**

**Individual Report Submitted By:**

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**Submission Date: 21 April 2024**

## **Individual Report**

### **Python and Database Experience**

#### **Introduction:**

In our Warehouse Management System (WMS) project, my primary responsibility revolved around managing the database using SQLite and implementing database-related functionalities in Python. As databases form the backbone of any system, my role was crucial in ensuring seamless interaction between the backend and database components.

#### **Challenges Faced:**

Throughout the development process, I encountered several challenges that tested my problem-solving skills and expertise in database management. Designing an efficient and scalable database schema that accommodates the system's requirements while maintaining data consistency emerged as a significant challenge. This required a deep understanding of the system's functionality and careful consideration of SQLite's capabilities.

Furthermore, optimizing database queries to improve performance and scalability posed another challenge. Balancing the trade-offs between query complexity and execution time required thorough analysis and experimentation. Additionally, ensuring data integrity and implementing transaction management mechanisms were crucial aspects that demanded rigorous testing and validation to mitigate potential risks.

#### **Learning Outcomes:**

Through my extensive involvement in database management and Python programming, I gained invaluable experience and enhanced my skill set. Working with SQLite provided me with insights into designing and implementing robust database schemas that meet the project's needs. Collaborating closely with team members during the integration phase enriched my understanding of data flow and system architecture, contributing to a holistic view of software development processes.

Moreover, this experience equipped me with essential skills for managing databases and implementing backend functionalities in future projects. I developed a keen eye for optimizing database performance and ensuring data integrity, laying a strong foundation for tackling complex challenges in database management and backend development.

In conclusion, this immersive experience has not only enriched my technical expertise but also fostered collaboration and teamwork, essential qualities for success in software development endeavors.

**GitHub Link:-**

<https://github.com/Arbazkhanmokashi/Programming-Project-B9IS123-.git>