Muthelo Kutama – Information Technology in Business Systems – Rosebank College

54 Azalea Street, Lenasia South

DOB: 2002/04/13

Skills/Softwares:

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Contact: 0785721164

Java	Quantitative Techniques	MySQL
HTML	Databases	Node JS
CSS	MongoDB	Python
JavaScript	VS Code	Netbeans

#### **Education:**

Degree	University/Board	Institution	Year	AVERAGE/%
IT in Business Systems	Rosebank college	IIE	1	75,75
IT in Business Systems	Rosebank college	IIE	2*	72,75*

## \*Year 2 not complete yet

# Learnings:

- Programming: I can code in Java & Python for various applications.
- Web development: I can design and develop user-friendly and responsive websites with HTML, CSS, JavaScript, etc.
- Databases: I can use SQL to create and query databases efficiently.
- Programming logic & design: I can use logic and algorithms to solve problems and design optimal solutions.

### **Academic Projects**

January 2022 to Present

## Quantitative Techniques

- 1. Develop a mathematical model to predict the sales of a new product using historical sales data and other relevant factors.
- 2. Use statistical analysis to identify trends in customer behavior and segment customers into different groups based on their needs and preferences.
- 3. Create a financial model to evaluate the feasibility of a new business venture, taking into account the costs, revenues, and risks involved.

## Programming Logic and Design

- 1. Design and implement a software application to solve a real-world problem, such as a system to manage student records or a program to track inventory levels.
- 2. Develop a game or simulation using a programming language such as Python or Java, such as a game to teach children basic math concepts or a simulation to model the spread of a disease.
- 3. Create a web application using HTML, CSS, and JavaScript, such as a website for a small business or a social networking site for students.

### **Programming 1A**

- 1. Write a program to solve a classic algorithm problem, such as sorting a list of numbers or finding the shortest path between two points in a graph.
- 2. Develop a program to process and analyse a dataset, such as a program to read and summarize a CSV file or a program to perform statistical analysis on a set of data.
- 3. Create a program to interact with a hardware device, such as a program to turn on and off an LED light or a program to read data from a sensor.

#### **IT Professional Practice**

- 1. Develop a risk management plan for an IT project, identifying potential risks and developing strategies to mitigate them.
- 2. Create a change management plan for an IT project, outlining how changes will be proposed, approved, and implemented.
- 3. Develop a disaster recovery plan for an IT infrastructure, specifying how the infrastructure will be recovered in the event of a disaster.

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## Web Development (Introduction)

1. Create a simple website using HTML, CSS, and JavaScript, such as a website for a personal portfolio or a website for a small club or organization.

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- 2. Develop a dynamic website using a server-side programming language such as PHP or Python, such as a website with a blog or a website with a product catalog.
- 3. Create a database-driven website using a content management system such as WordPress or Drupal, such as a website for a news organization or a website for an e-commerce store.

#### System Analysis and Design

- 1. Develop a use case diagram and user flow for a new software application, identifying the different actors that will interact with the system and the steps they will follow to complete their tasks.
- 2. Create a data flow diagram for a new software application, depicting how data will flow through the system.
- 3. Develop an entity-relationship diagram for a new database, identifying the different entities in the system and their relationships to each other.

## **Academic Achievements:**

## **Quantitative Techniques**

- Solve a math problem using calculus or linear algebra.
- Analyse a dataset using statistical methods.
- Create a financial model using Excel or Google Sheets.

# Programming Logic and Design

- Write a program to play a simple game, such as tic-tac-toe or rock-paper-scissors.
- Develop a program to solve a common programming problem, such as finding the maximum value in an array or reversing a string.
- Create a web application to display a simple message or perform a basic task.

### **Programming 1A**

- Write a program to read and write a file.
- Develop a program to sort a list of data.
- Create a program to perform a database query.

## **IT Professional Practice**

- Identify and mitigate potential risks to an IT project.
- Create a plan for managing changes to an IT system.
- Develop a backup and recovery plan for an IT infrastructure.

## Web Development (Introduction)

- Create a simple web page using HTML and CSS.
- Add interactivity to a web page using JavaScript.
- Deploy a web application to a web server.

# System Analysis and Design

- Draw a flowchart to illustrate the steps involved in a business process.
- Create a database schema for a simple application.
- Design a user interface for a software application.

## Extracurriculars/ Hobbies:

- Film Making
- Football
- Fantasy Premier League
- Reading
- Youth

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• Making websites for clients.

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