**Ahmed Khamis**

**Leicester**

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**Personal Profile**

Currently in my second year in University of Northampton studying Computer Science. First year has taught me a of things and gave me the foundation for me to learn about the topics I studied e.g. programming language, operating system and the system development life cycle. I am currently looking to do a placement next year and use what I have learned in university and implement in real-life scenario. A strong passion for coding and looking forward to having put in what I learnt into doing projects

**IT Skills**

* Programming Languages: HTML, CSS, Python, JavaScript, Java
* Software Engineering: Working in groups and presenting in front of the class
* Networking: TCIP/IP, Subnetting, Routing, Firewall configuration

**Education**

**Course name University of Northampton 2022 - 2025**

**Modules 2023 - 2024**

* Relational Databases
* System Design
* Web Programming
* Operating Systems
* Group Project
* Data Structures and Algorithms

**Modules 2022 - 2023**

* Computer Communications
* Computer Systems
* Mathematics for Computer Science
* Problem Solving and Programming
* Software Engineering Fundamentals
* Web Development

**Projects**

**Group Project on Relational Databases**

**Objective:** Understand and apply database integrity principles in design and development.

**Database Design:**

* Created SQL scripts in Notepad++ containing CREATE TABLE commands, ensuring integrity with NOT NULL constraints and defaults.

**Constraints:**

* Used ALTER TABLE commands to add constraints ensuring integrity and validation.

**Data Insertion:**

* Added test data with INSERT commands in the correct order to maintain integrity.

**Database Cleanup:**

* Created scripts to DROP tables and constraints maintaining correct order for integrity.

**Queries:**

* Developed queries for various operations including simple retrievals, projections, and joins.

**Validation:**

* Used Oracle to validate and test all scripts

**Relational Database**

**Operating Systems**

**Operating Systems Project**

**Area Calculation Script (area.sh):**

**Objective:** Develop a Bash script to calculate the area of a rectangle.

* Prompted user for dimensions in cm and inches.
* Calculated and displayed area in square meters and inches.
* Provided options to quit or re-enter data.
* Used regular expressions for input validation and incorporated dialogue boxes.

**Portfolio Submission:** Included program code with comments, flowcharts, user guide, code description, testing evidence, and screenshots.

**Bonus Calculation Script:**

**Objective:** Compute bonuses for Mercedes Benz salespersons.

* Calculated bonuses based on sales thresholds and tax rates.
* Employed bubble sort for displaying sorted results.
* Validated inputs with regular expressions.

**Portfolio Submission:** Included program code with comments, flowcharts, user guide, code description, testing evidence, and screenshots.

**Blackjack Game Script (blackjack.sh):**

**Objsective:** Create a shell script to simulate the game of Blackjack.

* Developed a script using arrays and functions.
* Ensured dealt cards were removed from the deck.
* Made the game user-friendly with clear instructions and prompts.

**Portfolio Submission:** Included program code with comments, flowcharts, user guide, code description, testing evidence, and screenshots.

**Leicester College St. Margaret’s Campus (2012-2017)**

6 GCSES in English Language, Maths, IT, PE, Business, Engineering