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Interim Report – Final Project (Module B8IT131)

Higher Diploma in Science in Computing

Software Development

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# Acknowledgements

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# Introduction

**Project Aims**

This project had two primary and aims. I wished to build a simple yet effective solution to a practical business or societal problem while simultaneously developing skills that would be of use in my career as an identity and access management engineer or architect.

First, the business problem and my proposed solution. The Republic of Ireland is yet to implement an ePrescribing software across is pharmacy and general practitioner ecosystem. In practice, this means that patients can either carry a hardcopy prescription to any given pharmacy, or a physician’s surgery can email prescriptions to one given pharmacy. This is especially cumbersome for recurring prescriptions or for people who business travel regularly. The technology required should not be especially arduous to build a system that allows authenticated physicians to (to use HTTP parlance) ‘*post’* and ‘*put’* prescriptions; and for authenticated pharmacists to ‘*get’* prescriptions. It calls for, essentially, a series of CRUD (create, read, update, delete) APIs in addition to a registration and authentication flow to ‘*post’, ‘put’, ‘get’, and ‘delete’* identity records for authenticated physicians and pharmacists.

Regarding the second objective related to skill-building in an area relevant to my career path, it has been recommended to me by several of my mentors at IBM that I build some muscle memory and familiarise myself with node.js. This is in large part because I have a particular interest in consumer-facing identity and access management (CIAM) and because the node.js environment is becoming extremely popular with developers. It’s been indicated to me that growing skills, particularly around OAuth/Open ID Connect flows for authentication and authorisation will make me an indispensable resource in the marketplace. For reasons I can expound on further below, it so happens that the node.js runtime environment is extremely suitable to this kind of web application. Finally, I have become somewhat besotted with JavaScript as a programming language. It’s versatility and agility is extremely powerful, particularly now that it is increasingly being run from the server and not just on browsers as in the node.js runtime environment. It is also the primary language of identity & access management. JavaScript is a language I simply must obtain a grasp of.

**Project Scope**

**Project Approach**

**Assumptions**

# Background

# Specification & Design

# Project Testing & Evaluation

# Demonstration of Progress

# Future Work & Dependencies

# Appendices

# Functionality Development Hierarchy

# User Interface

# User Authentication

# API Layer: CRUD APIs

# Data Layer

# Bibliography