**New Zealand Diploma in Information Systems**

**HTCS5607 IS Application Project**

**TECHNICAL REPORT**

**Project Name: *ANZAC Bank***

|  |  |  |  |
| --- | --- | --- | --- |
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**Client Stakeholders**

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| --- | --- | --- |
| **Client Stakeholders** | **Full name and title** | **Contact details** |
| **Project Sponsor(s)** | *Lei Song, Simon Dacey* | *N/A* |
| ***ANZAC Bank Executives*** | *N/A* | *N/A* |

**DATE OF SUBMISSION**

*dd/mm/yyyy*

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# 1. Document Control

## 1.1 Version History

This document has had the following revisions:

| **Version** | **Date** | **Author** | **Description of Change** |
| --- | --- | --- | --- |
| 0.1 | 22/9/21 | Andrew Haupt | Initial draft |

## 1.2 Contribution to Report sections

| **Project Team Member name** | **Student ID** | **Report Section** |
| --- | --- | --- |
| Andrew Haupt | 1545505 | All |
|  |  |  |
|  |  |  |
|  |  |  |

## 1.3 Glossary

To provide clarity, terms and acronyms used in this document are defined as follows:

| **Term / Abbreviation** | **Definition** |
| --- | --- |
| Supervisor | Technical Advisor |
|  |  |

# 2. Executive Summary

# 3. Introduction

This technical report is for the business management software being produced for the ANZAC Banking organisation. In the report it will cover many aspects of the project such as planning, design, deployment of the programme. This project will be documented from start to finish with many huge decisions being made in the process. However, it will not cover the testing and development of the software itself, due to the fact that will be done elsewhere.

# 4. Technology Review

I have been assigned with finding the possibility of developing an application to manage the ANZAC bank's operations. It is a system for managing both human and physical resources.  wide category of Business Management Software (BMS). This means that this process would go under "broad category of Business Management Software”.

The programming language chosen for development is the most important component of project because it will serve as the framework for most of the application. There are numerous languages available on the market, each of which excels at a specific task. As a result, the best language to use depends on the application's use case. C#, Python, and JavaScript are some of the most commonly used languages for Business Management Software. Microsoft's C# is an object-oriented programming language. It is heavily integrated with the ".NET" framework for developing local apps used in Windows OS. Its features have been open sourced and spread to the community in recent years, but this is still a poor decision for modern cross-platform applications. If we look at Python it is a straightforward but well-supported object-oriented programming language designed to be human-readable and straightforward to develop for. It is very well known for being portable and adaptable to almost any operating system, albeit at a lower efficiency than more optimized languages. The primary benefits of using a language like Python are portability and compatibility. JavaScript is less of a single language and more of a foundation for numerous frameworks capable of performing a wide range of tasks. It is widely associated with web development and shares many of Python's portability and compatibility while being more optimized, with its extra extensibility making it very versatile for a wide range of tasks. Given that the app's functions are more business-oriented than compute-oriented, an efficient language is not necessary. The software could be created in any of these three languages, but the compatibility and portability of JavaScript and Python make them the best overall long-term choice. Out of these two, JavaScript is the better choice for this project due to the large variety of available frameworks that handle a large portion of the application's difficult aspects.

In the modern era, there are numerous applications available for producing code. A good Integrated Development Environment is not as significant as good coding techniques, but a fully featured Integrated Development Environment can help significantly. Picking the appropriate IDE is mostly determined by the programming language used, but there are alternatives. A great example is Visual Studio as it is one of the most well-known IDEs on the market, and it supports almost every programming language.  It also includes documentation features that improve production efficiency. Another great is example would be PyCharm is another alternative on the market, although its name implies that it is intended to be an IDE for Python, it thrives at this task and is full featured and suited for creating in this language. If we look at Visual Studio Code, it, is a separate product created by Microsoft that focuses on JavaScript development with minimal support for computer environment languages like C#. It is excellent for JavaScript development.  IDEs also support version management control, meaning that they will all work well with the project's chosen by Project Management System. Because the best alternative is dependent on the language chosen, Visual Studio Code is definity one of the top IDE's for this type of project because it is suitable to development in JavaScript.

The database is at the heart of any management system and picking the correct software for the job is critical for creating a functional application. If we look at MySQL it is a well-known open-source database solution built on the SQL standard. It has many advantages such as, it is well supported, cost effective, and adaptable to a wide range of development environments. While on the other hand Microsoft Access is a much more conventional database program. It is regarded as a legacy system rather than modern competitive database software. Although it would serve the function of this software, it is not particularly future-proof and should be avoided. SQLite is yet another SQL-based database that is designed to be lightweight. It is completely open source; however, it isn't suitable for large projects, it's also fast and responsive, and it comes pre-configured for small to medium-sized applications. SQLite is the best alternative due to the reason of it being a lightweight operation and the minimal specifications of business management software.

# 5. IT Methodology

# 6. Project Management

## 6.1 Project Management Narrative

*Details with evidence how the development of the project followed the selected systems development lifecycle*

## 6.2 Project Plan with Milestones

*Include an overall plan here and attach a detailed GANTT chart to the appendices*

## 6.3 Project Governance Responsibilities

*Explain who was responsible for project management and quality assurance, and explain how these tasks were carried out*

## 6.4 Project Meetings

*Include a schedule of your meetings (date, duration, participants, and type) and attach the minutes of each meeting to the appendices*

## 6.5 Project Reports

*Discuss the project status reports and attach your project status reports to the appendices*

## 6.6 Project Risk and Issue Analysis

*Discuss project risks and issues and attach your project risk and issue register to the appendices*

# 7. Requirements Analysis

## 7.1 Introduction

## 7.2 Use Case Diagram

## 7.3 Business Use Case Narratives (Descriptions)

## 7.4 Activity Diagrams

## 7.5 Overall Class Diagram

# 8. Project Design

## 8.1 Introduction

## 8.2 Software List

## 8.3 Version Control Software

## 8.4 Design Use Case Narratives (Descriptions)

## 8.5 Sequence Diagrams

## 8.6 Deployment Diagram

## 8.7 Database Design

*Include ERD and data dictionary*

## 8.8 Annotated User Interface Designs

## 8.9 Test Plan

# 9. Project Training

## 9.1 End User Background and Training Objectives

## 9.2 Training Materials

## 9.3 Training Deliverables

## 9.4 Evaluation

# 10. Conclusion & Lessons Learned

# References

# Appendices