Project Propsal

Home Loan Monitor

John Jamieson

*Katherine Mulder & Alex Borawski*

Easter Institute of Technology NZ Bachelor of Computing Systems

ITPR7.508 Business Application Programming

|  |  |
| --- | --- |
|  | REVISION DATE: Ongoing |

Home Loan Monitor

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Approver Name** | **Title** | **Email** | **Signature** | **Date** |
| John Jamieson | Software Client | jjamieson@eit.ac.nz |  |  |
| Katherine Mulder | Project leader/ Software Engineer | [huangs3@student.eit.ac.nz](mailto:%48%55%41N%47%533@s%74u%64e%6et%2ee%69%74%2ea%63%2en%7a) | KM |  |
| Alex Borawski | Soft developer/ Quality Assurance | [borawa1@student.eit.ac.nz](mailto:%42%4f%52%41%57%41%31@s%74%75%64en%74%2ee%69%74%2ea%63.%6e%7a) | AB |  |

Contents

[Section 1. Overview 1](#_Toc135221935)

[1.1 Purpose 1](#_Toc135221936)

[1.2 Business Context 1](#_Toc135221937)

[1.3 Scope 1](#_Toc135221938)

[1.4 User Characteristics 1](#_Toc135221939)

[Section 2. Assumptions, Dependencies, and Constraints 2](#_Toc135221940)

[2.1 Assumptions 2](#_Toc135221941)

[2.2 Dependencies 2](#_Toc135221942)

[2.3 Constraints 2](#_Toc135221943)

[Section 3. Requirements 3](#_Toc135221944)

[3.1 Business Requirements 3](#_Toc135221945)

[3.2 Functional Requirements 3](#_Toc135221946)

[3.3 Logical Data Requirements 4](#_Toc135221947)

[3.4 User Requirements 4](#_Toc135221948)

[3.5 Information Management Requirements 4](#_Toc135221949)

[3.6 Systems Requirements 4](#_Toc135221950)

[3.7 Interfaces 4](#_Toc135221951)

[3.8 Other Requirements 5](#_Toc135221952)

[Section 4. Requirements Traceability Matrix 6](#_Toc135221953)

[Section 5. References 7](#_Toc135221954)

[Section 6. Glossary 8](#_Toc135221955)

[Section 7. Revision History 9](#_Toc135221956)

[Section 8. Appendices 10](#_Toc135221957)

# 

# Section 1. Overview

## Purpose

The purpose of this document is to propose the development of a user-friendly home loan monitor. It aims to simplify mortgage management by providing tools for calculating payments, tracking interest rates, managing multiple mortgages, and planning financial strategies effectively. This monitor will offer intuitive navigation, unobtrusive design, and advanced functionalities to enhance productivity and streamline the mortgage management process for users.

## Business Context

In today's changing real estate market, managing mortgages can be complex. Our software aims to simplify this by offering a user-friendly solution tailored to your needs. It helps individuals and businesses effectively handle mortgage obligations despite fluctuating interest rates and evolving financial products.

## 1.3 Scope

|  |
| --- |
| **Project Include** |
| A mortgage calculator module that allows users to calculate monthly or fortnightly payments based on loan amount, interest rate, and loan term. |
| Incorporate ability to compare multiple loan and interest rates. |
| Enable users to input variable interest rates over specific periods and automatically update mortgage calculations accordingly. |
| Include a feature to view historical mortgage data. |
| Support multiple mortgages, allowing users to manage multiple properties simultaneously. |
| Include a chat to display mortgage data. |
| Development of a user-friendly interface webpage. |
| The project will include the utilized test files. |

|  |
| --- |
| **Project Exclude** |
| Not the actual deployment of the website onto designated servers. |
| Not include extensive SEO services such as keyword research, on-page optimization, or link building. |
| The project does not involve custom graphic design services beyond the scope of interface design and layout. |
| Not include the necessary maintenance and updates for the software. Not post. |

## User Characteristics

The target users of the home loan monitor/calculator software are diverse and may include individuals, families, real estate investors, and financial advisors. These users may have varying levels of familiarity with financial concepts and software usage. As such, the software will be designed with an intuitive interface and comprehensive help resources to accommodate users with different backgrounds and skill levels.

# Section 2. Assumptions, Dependencies, Constraints

## 2.1 Assumptions

*Describe the assumptions that can affect the requirements specified in this SRS.*

⇒

## 2.2 Dependencies

*Describe the dependencies that can affect the requirements specified in this SRS.*

⇒

## 2.3 Constraints

*Describe the constraints that can affect the requirements specified in this SRS.*

⇒

# Section 3. Requirements

## 3.1 Business Requirements

To provide software to simplify the process of mortgage calculations. This software will be delivered in full on or by the 7th of June, 2024 alongside complete user documentation. This project will cost up to (number).

## 3.2 Functional Requirements

**Mortgage Calculation:**

### Mortgage Calculation Purpose:

This function is to calculate mortgage payment based on user- provided input, including loan amount, interest rate, and payment frequency.

#### Home loan Inputs:

|  |  |
| --- | --- |
| **Function input** | **Definition** |
| Principal | The initial amount of money borrowed for purchasing a home. |
| Principal Increment | An increasing value of the principle. |
| Interest | The additional amount charged by the lender for borrowing the principal amount. |
| Interest Increment | An increasing value of the interest. |
| Years | The total duration of the loan in years. |
| Months | The specific month within the loan term. |
| Payment override option | Confirming if a payment override is included. |
| Payment override amount | The adjustment amount used instead for mortgage calculation. |
| payment override format | The repayment timeframe the override applies to. |

#### Home Loan Operations:

* Calculate mortgage payments based on Principal, interest and term (years and months).
* Calculate payments based on increment amounts to a set value.
* If an override is provided, calculate based on those values.

#### Home Loan Outputs:

### 3.2.*xu* Use Case *Y*

*When use cases are used as the means of specifying the functional requirements, provide a 3.2.xu subfunction for each use case. Each 3.2.xu subfunction should be labeled and titled appropriately for a specific use case, where xu is the appropriate sequential subfunction number and Y is the name of the specific use case.*

*Within each use case subfunction, specify the use case information, including the actor, pre-conditions, post-conditions, scenarios, and alternate scenarios.*

⇒

Mortgage Graphing Function:

## 3.3 Logical Data Requirements

*Describe the logical data requirements for the software.*

⇒

## 3.4 User Requirements

*Describe the user requirements for the software.*

⇒

## 3.5 Information Management Requirements

*Describe the information management requirements for the software.*

⇒

## 3.6 Systems Requirements

### 3.6.1 Performance Requirements

*Describe the performance conditions and their associated capabilities.*

⇒

### 3.6.2 Quality Requirements

*Describe requirements for the quality characteristics of the software.*

⇒

## 3.7 Interfaces

*Describe the logical characteristics of each interface between the application and other hardware, software, and communication protocols.*

⇒

## 3.8 Other Requirements

*Identify any other requirements that do not fit appropriately into the preceding requirement sections.*

⇒

# Section 4. Requirements Traceability Matrix

*Provide reference to the location of the Requirements Traceability Matrix that indicates traceabilty from the system requirements documented in the System Requirements Specification to the design elements documented in the System Design Description to the software requirements documented in this Software Requirements Specification (SRS).*

⇒

# Section 5. References

*Provide a list of all documents and other sources of information referenced in the SRS and utilized in developing the SRS. Include for each the document number, title, date, and author.*

| **Document No.** | **Document Title** | **Date** | **Author** |
| --- | --- | --- | --- |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

# 

# Section 6. Glossary

*Define of all terms and acronyms required to interpret the SRS properly.*

⇒

# Section 7. Revision History

*Identify changes to the SRS.*

| **Version** | **Date** | **Name** | **Description** |
| --- | --- | --- | --- |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

# Section 8. Appendices

*Include any relevant appendices.*

⇒