Loan\_App

TECHNICAL DESIGN DOCUMENT

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# SECTION 1: INTRODUCTION

## Purpose

*The goal of this website is to allow customers to view their loan application for payment models, it will also have an about page and contact information.*

## Terminology

|  |  |
| --- | --- |
| **Name** | **Comments** |
| *MEAN Stack* | *MongoDB, Express, Angular, and Node.js* |
| *VS Code* | *Development IDE* |
| *SoapUI* | *API testing tool* |
| *MongoDB Compass* | *Database development IDE* |
| *Angular Material* | [*https://material.angular.io/*](https://material.angular.io/) |
| *Flex-layout* | [*https://github.com/angular/flex-layout*](https://github.com/angular/flex-layout) |

## User Personas

## Free Happy ethnic woman sitting at table with laptop Stock Photo

(Piacquadio, 2019)

**Name**: Christina

**Role**: Customer

**Characteristics**: young, little patients and wants everything to be as simple as possible.

**Features commonly used**: Will use the loan calculator to see what she can afford for her loan payments, and contact information

**Features not likely used**: About page, not concerned about whose doing the loans

**Needs**: Would like to see how much her first home costs.

A person wearing a hat

Description automatically generated with medium confidence

(Santana, n.d.)

**Name**: Santana

**Role**: Customer

**Characteristics**: Old, retired, looking for a nice summer home down south away from the cold so he can smoke his cigs on the patio.

**Features commonly used**: Contact information so he can discuss his options with the loan officer

**Features not likely used**: Probably wont use the loan calculator very often

**Needs**: Needs to have a place to show who to call and what they do

A person sitting on a couch

Description automatically generated with low confidence

(*Old Woman Reading*, 2022)

**Name**: Susan

**Role**: Loan Officer

**Characteristics**: older, loan officer, calculates loans often, speaks to many people about taking out loans

**Features commonly used**: Will need the loan calculator

**Features not likely used**: Wont need to use any of the other features

**Needs**: Needs the loan Calculator and information about the loan company and loan officers and contact information

## User Stories

*User Story 1:*

1. *As a user I would like for an easy to use tool so I can calculate my loan payment*
2. *As a user I would like some contact information so I can contact the loan officer*
3. *As a user I would like a tool to calculate interest to see how much interest I will have paid*

*User story 2:*

1. *As a user I would like for a contact page so I can contact someone about a loan*
2. *As a user I would like an about page so I can see who I will be working with about a loan*
3. *As a user I would like an easy to use tool so I can calculate loan payments*

*User story 3:*

1. *As a user I would like to be able to place my contact information on the web application so that customers can contact me*
2. *As a user I would like customers to see their loan payment so they have an educated guess for what the loan will be*
3. *As a user I would like an easy tool to calculate loan payments for my customers so Im not taking too long doing it all by hand*

## Time Estimations

|  |  |  |  |
| --- | --- | --- | --- |
| User Story | Importance 1-3 | Story Points1,2,3,5,8 | Time Estimation in hrs |
| 1a | 1 | 5 | 4 |
| 1b | 3 | 3 | 2 |
| 1c | 2 | 1 | 2 |
| 2a | 1 | 5 | 4 |
| 2b | 2 | 1 | 2 |
| 2c | 3 | 3 | 2 |
| 3a | 3 | 3 | 2 |
| 3b | 2 | 1 | 2 |
| 3c | 1 | 5 | 4 |

# SECTION 2: PROCESS DESIGN

## 2.1. Prototypes

[*https://www.eggradients.com/blog/ravenclaw-colors*](https://www.eggradients.com/blog/ravenclaw-colors) *House of RavenClaw Colors*

[*https://marvelapp.com/prototype/8a9ihde*](https://marvelapp.com/prototype/8a9ihde%20) *Web App prototype*

A screenshot of a computer

Description automatically generated

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## 2.2. ORD (Object Relational Diagram(s)

A close-up of a white background

Description automatically generated

## 2.3. NoSQL Document Diagram

*[Covert the above ORD into a NoSQL Document Diagram]*

## 2.4. NoSQL Data Structure

*[Covert the above NoSQL Document Diagram into a NoSQL Data Structure (JSON data)]*

# SECTION 3: QA TESTING

## 3.1. QA Test Plan

*[Weekly Test Cases]*

## 3.2. Unit Tests

*[Images of SoapUI Unit Tests]*

# SECTION 4: REFERENCES

Piacquadio, A. P. (2019, May 8). *Happy ethnic woman sitting at table with laptop*. Pexels. https://www.pexels.com/photo/happy-ethnic-woman-sitting-at-table-with-laptop-3769021/

Santana, T. S. (n.d.). *Man With Cigarette In Mouth*. Pexels. https://www.pexels.com/photo/man-with-cigarette-in-mouth-1933873/

*old woman reading*. (2022, September 13). Unsplash. https://unsplash.com/photos/r\_3hUrJlLqc