

# C3879C Capstone Project

Project Interim Report

*Loan Prediction*

*Adelene Ng*

# Introduction

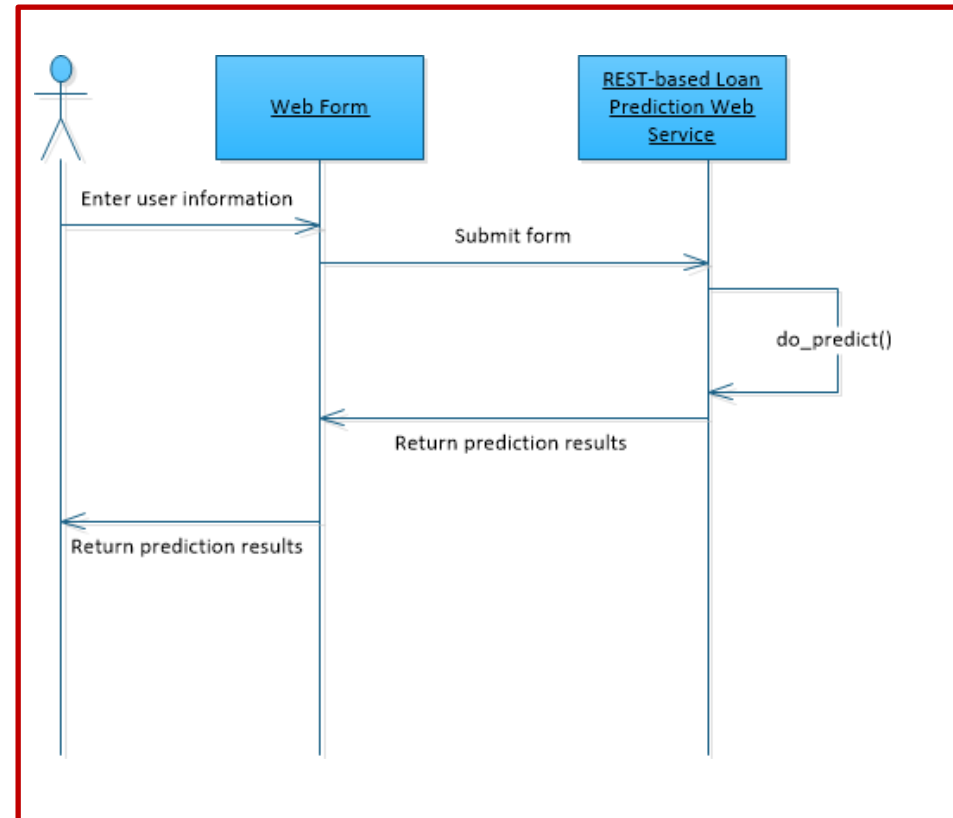
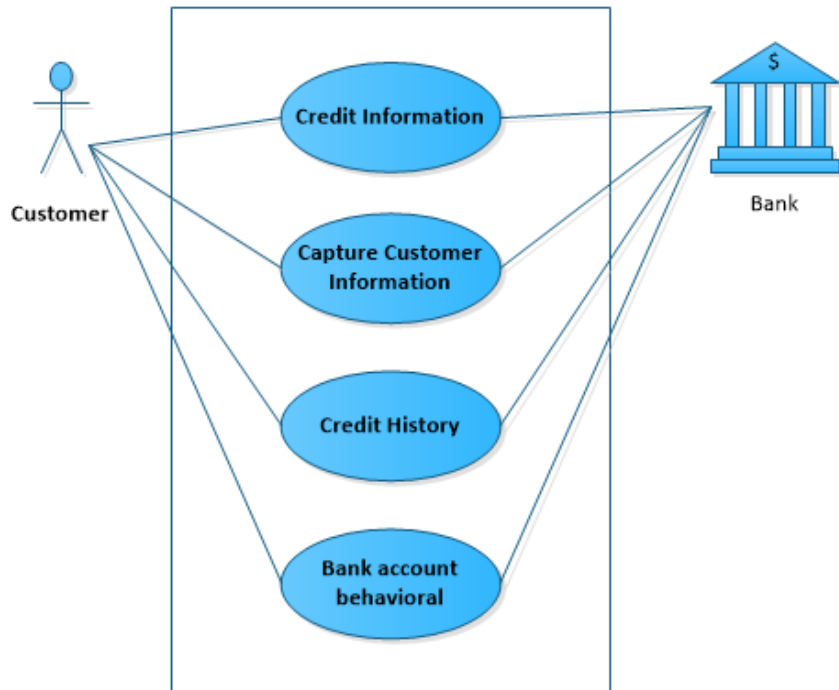
- ABC Finance is a finance company dealing with home loans
- They wish to automate their loan process – currently it is manual
- Wish to have a intelligent online system – customer furnishes details like occupation, income
- System will be able to validate if he/she is eligible for the loan in real time

# Problem Statements

- Manual loan approval process is tedious and time consuming
  - A lot of Paper work
  - Repetitive workflows
- Error prone
- Reduce the risks around the loans

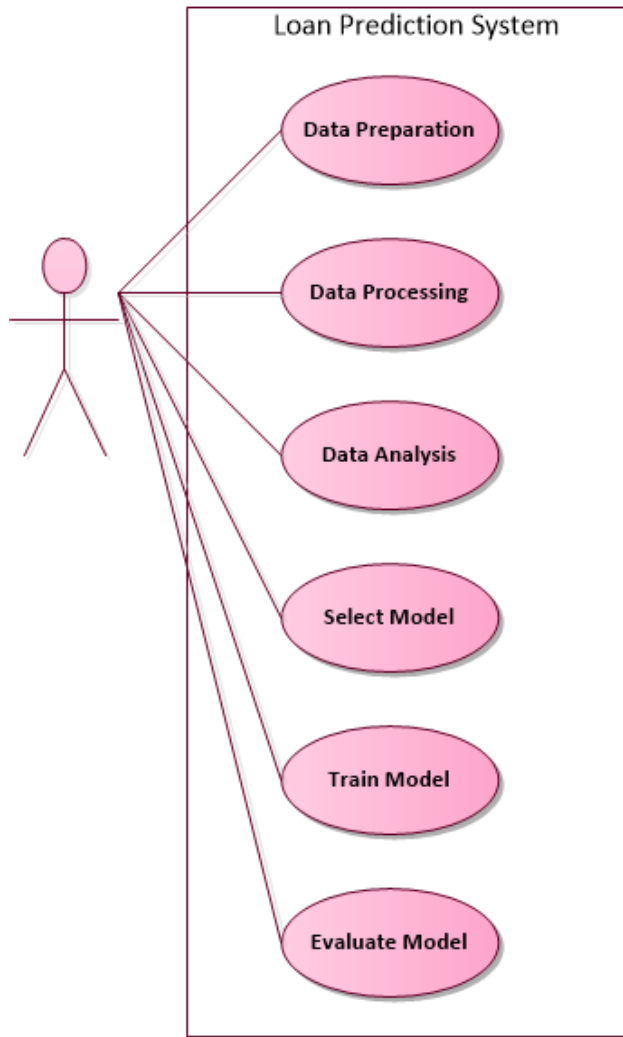
# Project Specification (Front End)

## Front End Use Case



# Project Specification (Back End)

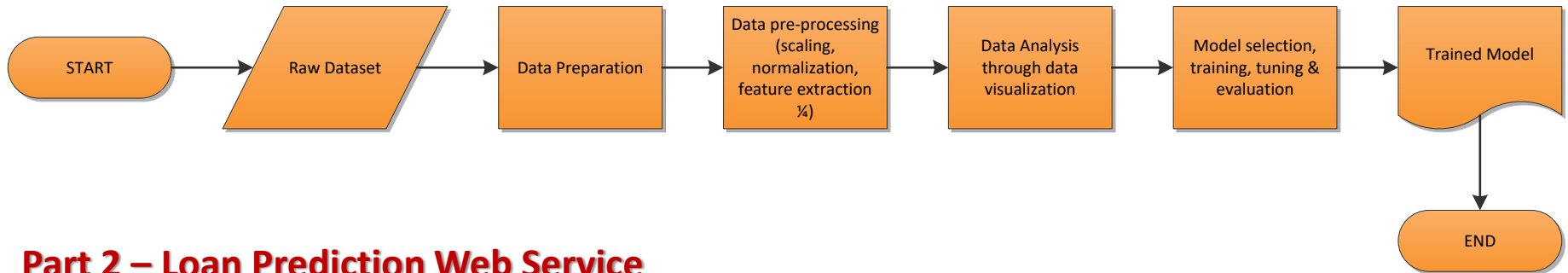
## Back End Use Case



# System/Software Design

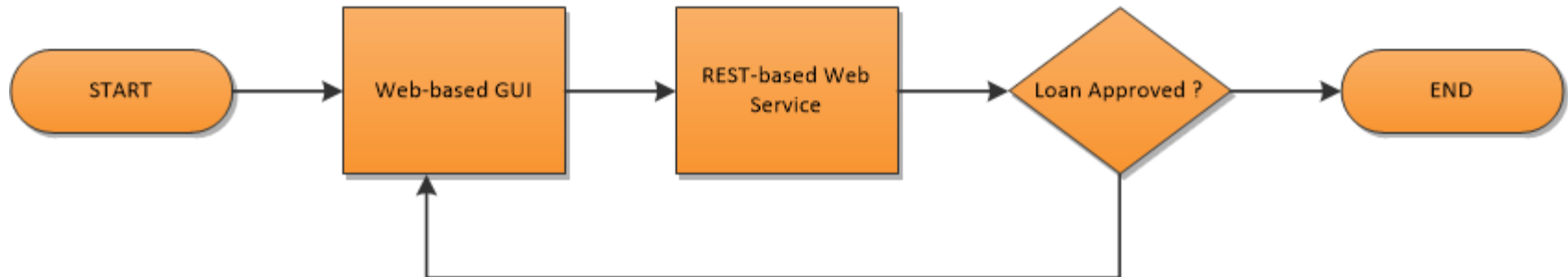
## Part 1 – Model Building

Building & training the Loan Prediction Model



## Part 2 – Loan Prediction Web Service

Use trained model to do loan prediction



# Task Allocation and Progress

Tasks	Progress
Data preparation – for e.g. cleaning (missing values, duplicated data, correct errors (if any), data type conversions)	70%
Data pre-processing – for e.g. normalization & standardization, feature extraction & selection, dealing with outliers & imbalanced data	70%
Data Visualization – to determine inter-relationships in the dataset	50%
Model selection & training; Evaluate and tune model	50%
Web based front end (GUI)	80%
Back end web-based service to return prediction to requestor	60%
Final Report	0%