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CECS 491A

Draft: System Vision and Stakeholders

Contents

Introduction	2
Stakeholders	2
Stakeholder Matrix	3
System Vision	3
Stakeholder Diagram	4

Introduction

This document is a preliminary system vision outline of the project details pertaining to the City of Long Beach and its initiative to predict and prevent business delinquency among local businesses based on past and current data and market trends. Using Artificial Intelligence and its machine learning capability, the city of Long Beach will work in partnership with CSULB, to design and develop a solution to this problem.

Project Team Members include the following

Project Advisor: Birgit Penzenstadler

Project Sponsor and Domain Expert: Nishchal Chaudhary

Project Team Leader: Anton Shirokov

Project Developers: Anton Shirokov, David Taitingfong, Andre Barajas, Sovathana Heng and Ernest Arreola.

Stakeholders

- City Department represented by Nishchal Chaudhary:
 - **Who:** Local government
 - **Role:** End user, main funder
 - **Function:** Provide a consultation to the small businesses, interact with the system
 - **Main interest/concern:** Their main interest is to accurately identify delinquent small businesses in a timely manner to take further action.
- Long Beach residents
 - **Who:** Locals that use the money to shop at local small businesses
 - **Role:** Consumer needed for small businesses to thrive, impacted indirectly by the system
 - **Function:** Purchase goods from small businesses
 - **Main interest/concern:** Their main concern is the sustainability of the local enterprises and, therefore, the local community.
- Small Business owners
 - **Who:** Entrepreneur
 - **Role:** owner of the data being collected and analyzed, impacted directly by the system
 - **Function:** **Information providers**
 - **Main interest/concern:** get outreach and support from the city if the system determine they are delinquent small businesses

Stakeholder Matrix

	Motivation	Expectation	Skills	Priority
City Department represented by Nishchal Chaudhary	Accurately identify delinquent small businesses in a timely manner to take further action	Software that identifies the delinquent small businesses	Providing data and consultation	High
Long Beach residents	Save their favorite small businesses	Appropriate government support for delinquent small businesses	None	Low
Small Business owners	Helps small businesses that need help	Expects department of Long Beach provide consultation	Generate data	High

Executive Summary

The City of Long Beach wants an efficient way to identify delinquent local small businesses. Despite of an insurmountable amount of available data and resources, the department does not have efficient processes established to identify delinquent businesses in need of assistance in a timely manner. The plight of the app is to implement machine learning techniques and pipelines to extract necessary data and and swiftly identify impacted businesses. The city government will have an opportunity for a fast response to address the needs of the delinquent small businesses, thus, maintaining local economy.

System Vision

The developers build a system based on the city department's specifications. The system is pipelined appropriate data from Long Beach small businesses. This data is analyzed using machine learning techniques. The system identifies delinquent small businesses. The city then takes appropriate action to address presented issues.

