**CCT College Dublin**

**Assessment Cover Page**

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| **Module Title:** | **Strategic Thinking** |
| **Assessment Title:** | **CA2 Capstone Project Proposal** |
| **Lecturer Name:** | **James Garza** |
| **Student Full Name:** | **Ciara Barron** |
| **Student Number:** | **sba23419** |
| **Assessment Due Date:** | **Sunday, 17 December 2023, 11:59 PM** |
| **Date of Submission:** |  |

**Declaration**

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| **By submitting this assessment, I confirm that I have read the CCT policy on Academic Misconduct and understand the implications of submitting work that is not my own or does not appropriately reference material taken from a third party or other source. I declare it to be my own work and that all material from third parties has been appropriately referenced. I further confirm that this work has not previously been submitted for assessment by myself or someone else in CCT College Dublin or any other higher education institution.** |

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Title**:** Bike Sharing- An In-Depth Analysis of the Potential Benefits of Introducing Bike Sharing in Wexford

# Introduction

Currently there are over 500 bike-sharing programs around the world. They have a huge role to play in traffic, environmental and health issues. Despite being 50 years old, bike sharing is only recently seeing international growth (smartcitiesdive.com, n.d.). This proposal will briefly define potential problems in relation to introducing bike sharing and elaborate on the significance of an exploration of the issue. It will outline the objectives and scope of the proposed report on the issue of introducing bike sharing in Wexford. Finally, this essay will identify the appropriate data sources and ethical considerations for the proposed report.

# Objectives

Using a number of data sources where studies have been conducted on the real world application of bike sharing systems, the main objective of this report will be to examine economic viability of implementing a bike sharing system, to consider potential cost savings, revenue generation and job creation. Other objectives include; evaluating environmental impact, promoting healthier lifestyles and enhancing urban mobility.

# Problem Definition

In Ireland and Wexford specifically, there are a number of pressing environmental and transport issues such as traffic congestion, air pollution and a scarcity of sustainable transport alternatives. There is a reliance on traditional modes of transport which contribute negatively on the environment and also on citizen’s quality of life. In order to address these issues, we need to look at innovative solutions such as introducing bike sharing options.

# Scope

This report focuses on assessing the feasibility and potential benefits of introducing a bike sharing system in Wexford. It will look at factors such as infrastructure requirements, community engagement, economic implications, and environmental impact. The scope encompasses a comprehensive analysis of the main dataset (UCI Machine Learning Repostitory, n.d.) aiming to extract valuable insights that inform decision-making regarding the implementation of a bike sharing program.

This project takes place over two semesters. By the end of semester two, it is expected that a comprehensive report will be delivered detailing the findings on the above objectives.

The aim is to provide valuable insights that can help inform future decisions and policies. The project will not be making specific policy recommendations.

To give a high level overview of the planned methods, techniques and approaches that it is hoped will be carried out, an initial review will be undertaken of the information available, beginning with the sources referenced below. The relevant data will then be collected and statistical analysis techniques will be used to clean the data and identify trends and patterns. Finally, the findings will be documented in a detailed report.

The timeline will consist of 4 stages divided over 3 months where the work will be divided equally, roughly three weeks will be allocated to each stage. These stages can be broken down into; Literature Review, Data Collection, Data Analysis and Report Writing. Project management techniques to keep track of the work.

# Data Sources

The main dataset this report will be referencing will be ‘Bike Sharing Dataset’ from UCI Machine Learning Repository. This is a comprehensive repository that includes information on bike sharing usage patterns and related metrics. Supplementary data from data.world will also be used, there are 65 bike sharing datasets available here to the report which may also be referenced. The report will conduct exploratory data analysis and statistical methods to achieve relevant results regarding the potential advantages and challenges associated with implementing a bike sharing scheme in Wexford. The report will also reference reports and journals discussing the relevant issues along with Government strategies and action plans to tackle these issues.

# Ethical Consideration

This report will reference a number of datasets, mainly open data held by public bodies and open source data. Open source data gives “everyone access to non-personal government data which can deliver enhanced economic, social, environmental and democratic benefits to all” (Government of Ireland, n.d.). These datasets are not only easily accessible but also free to use. The authors will be aware of ensuring data accuracy when using different datasets and will highlight the potential issues related to this throughout the report. We will ensure transparency in our methods and findings, using open source data that aligns with these considerations.

# References