

## Project Design Phase-I Proposed Solution Template

Date	24 September 2022
Team ID	PNT2022TMID09938
Project Name	Project - A new hint to transportation - Analysis of the NYC bike share system
Maximum Marks	2 Marks

### Proposed Solution Template:

Project team shall fill the following information in the proposed solution template.

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	A New Hint to Transportation - An Analysis of the NYC bike share system. This analysis aims to create an operating report of Citi Bike for the year 2018 and create various data visualizations for given problem queries.
2.	Idea / Solution Description	We have with us millions of recorded data. It is difficult to process the data with normal databases. To effectively process and visualize data, we use IBM Cognos, a web-based integrated business intelligence suite by IBM. Using IBM Cognos, we aim to create an operating report, provide useful insights and present them in the form of a dashboard.
3.	Novelty / Uniqueness	<p>-&gt; Apart from creating just the data visualizations that have been asked, we aim to create an <b>interactive</b> dashboard that can take certain user inputs and display visualizations that are specific to the input.</p> <p>Example: Take as input the start date and end date - Display the total number of trips between the given start and end date</p> <p>-&gt; We plan to find other statistics that can be of use to the manufacturers:</p> <ul style="list-style-type: none"> <li>Coordinates, where any given bike is parked the longest in between the start and end hub - these coordinates, could be those of a potential new hub.</li> <li>The conversion rate of customers (who could be non-tourists) to subscribers.</li> </ul>

		-> Sending the final resultant statistics as an email to a specific set of people who might benefit greatly from it - they can store it for future use.
4.	Social Impact / Customer Satisfaction	Identifying the age groups and frequently visited locations can help us come up with a more targeted business approach. This is highly helpful when the current system is expanded and new stations are introduced. Availability of an improved, eco-friendly, alternative transport solution that provides health benefits encourages customers to opt for it instead of currently existing transport options.
5.	Business Model (Revenue Model)	Government can promote environment-friendly bicycles. Fitness companies can run campaigns to target the right customers. Citi Bike has five different sources of revenue, with an annual membership, sponsorship, and casual membership being the three most important. Together these three categories made up over 85% of Citi Bike's total revenue (in 2019).
6.	Scalability of the Solution	The creation of the operating report (solution) involves an extended analysis of data presented for the year 2018. Our solution offers high scalability, as not only can it be extended for any number of years provided the right data is offered, but it can also be made use of by other companies as a scalable template that wants to make similar reports on different solutions they offer.