

# T5 project proposal

## Bike station System

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## Introduction:

Bike sharing systems have become popular means of travel in recent years, providing a green and flexible transportation scheme to citizens in metropolitan areas. Many governments in the world have seen this as an innovative strategy that could potentially bring a number of societal benefits. For instance, it could reduce the use of automobiles and hence reduce greenhouse gas emission and alleviate traffic congestion in city centers.

## Data description:

- id: ID the user number.
- duration : the time during which use it .
- start\_date: The date on which the bike began to be used.
- start\_station\_name The name of the station from which the user .
- start\_station\_id The id of the station from which the user started.
- end\_date The date of the end use it.
- end\_station\_name :The name of the station where the user ended up.
- end\_station\_id:The id of the station where the user ended up.
- bike\_id: The Identifier of the bike.
- subscription\_type: Type of use Is user or subscriber.
- zip\_codr:A ZIP code for the Customer.

## Question and answer:

What is the framing question of your analysis, or the purpose of the model/system you plan to build?

**Ans:** The main purpose of the model is to optimize the placement of street teams in which that we predict the most crowded time and place.

Who benefits from exploring this question or building this model/system?

**Ans:** The proposed model can have multiple benefits such as

Gazal App to manage or create stations in many location

What dataset(s) do you plan to use, and how will you obtain the data?

**Ans:** Cycle Share Dataset Bicycle Trip Data from Seattle's Cycle Share System , and since it' publicly available we can obtain it easily.

**How do bike trip patterns vary by time of day and the day of the week?**

**What are the most used stations?**

## **Tools:**

The tools that I used for the project are:

- Python programming language
- Jupyter lab as programming environment
- Numpy and Pandas for data manipulation
- scipy and math for mathematical operations
- PowerPoint for presentation