

Group 7: Hima Gharat, Steven Pennington, Sadik Muktar, Leslie Vazquez  
UPENN-PHI-DATA-PT-09-2020-U-C  
Project 2 Proposal

### **Indego Bike Transit System**

Bicycle Transit Systems is a Philadelphia based company which has been operating the Indego bike share program since 2015. The bike share program offers a multitude of ride options including hourly, daily, and yearly passes. Indego has over 140 stations and 1,400 bicycles, both classic and electric, and since the launch of the bike share, more than 4 million rides have been taken. As such, it is safe to say that bike sharing is a vital mode of transportation within the city of Philadelphia.

The appeal and popularity of the bike share system in Philadelphia is what piqued our interest in analyzing Indego Transit further. The goal of the analysis is to compare datasets from different years and evaluate the changes over time and ultimately project what changes will be seen in the coming years.

#### Process:

We will look at bike share data for Bicycle Transit Systems in Philadelphia. We are looking at data from Q2 and Q3 of 2019 to 2020 to see if average trip, passholder type, and trip route type increased because of COVID. We will start by taking CSV files for Q2 and Q3 for 2019 and 2020 and importing them into Pandas to clean and narrow down the fields and columns we intend to look at. We will then create an ERD and export the files into PostgreSQL. From there we will query the PostgreSQL database with Flask API to make various summary tables and visualizations showing a potential difference between Q2 and Q3 of 2019 and 2020. Lastly, we will rank the stations and use mapbox to highlight what areas had the most trips.

We plan to have multiple tabs that users can click through. We will have a landing page documenting our project and the bike share. Then a tab that will take you to our data and visualizations. On the visualizations page we will use a scatter plot to show passholder type and avg trip duration. This graph will be accompanied by a summary table that shows average trip duration, bike type, passholder type, and station.

#### Data Sources:

<https://www.rideindego.com/about/data/>

geoJSON url : <https://kiosks.bicycletransit.workers.dev/phl>

