

Website

Team ID	PNT2022TMID23401
Project Name	A new hint to transportation - Analysis of the NYC bike share system

HOME PAGE:

The screenshot displays a web browser window with the URL 127.0.0.1:5555/Home.html. The website has a dark blue header with navigation links: Home, Dashboard, Report, and Story. An IBM LOGIN button is in the top right. The main content area has a light blue background and features the title "A NEW HINT TO TRANSPORTATION-ANALYSIS OF THE NYC BIKE SHARE SYSTEM" and the team ID "PNT2022TMID23401". A section titled "TEAM MEMBERS" lists: CHARUMATHI K, ELEKKIYA S, MARISAKTHI G, NANDHINI S, and SHIVANI A. The "Introduction" section describes the popularity of bike share programs and the premise of bicycle sharing. The "Project Description" section discusses the need for Citi Bike to understand supply and demand. The "Project Objectives" section lists three goals: understanding IBM Cognos Analytics, plotting graphs, and creating dashboards. The "Goal" section is partially visible at the bottom.

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A NEW HINT TO TRANSPORTATION-ANALYSIS OF THE NYC BIKE SHARE SYSTEM

TEAM ID: PNT2022TMID23401

TEAM MEMBERS
CHARUMATHI K
ELEKKIYA S
MARISAKTHI G
NANDHINI S
SHIVANI A

Introduction

Bike share programs have risen in popularity in recent years and have been promoted as a lower carbon alternative to other forms of transit. Interest in bicycle sharing has been growing exponentially over the past decade, resulting in a proliferation of bike share systems in many cities across the world. This can be largely attributed to the successful incorporation of information technology in docking stations and mobile devices as well as improved logistics such as bicycle rebalancing to ensure responsive supply management. Cities often hope bike sharing will bring many benefits such as extending the reach of transit, substituting motorized trips, and encourage non-cyclists to try cycling.

The premise of bicycle sharing is that it is a short-term bike rental system, based on varying timed memberships. Members of the bike share network have access to stations, comprised of a pay-station and multiple bike docks, across the system where bikes can be checked out from one station and returned to another nearest to their destination. The appeal of membership is 24/7 access to an automated bike rental network and utility of bikes without the worry of storage or maintenance. The price system is set to encourage

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appeal of membership is 24/7 access to an automated bike rental network and utility of bikes without the worry of storage or maintenance. The price system is set to encourage shorter trips, with additional fees for any time used over that maximum. There is evidence that bike share users switch to bike share from motorized transport, such as bus and auto creating the potential for significant reductions in transportation related greenhouse gas or CO2 emissions.

Project Description

Citi Bike must know how much increase or decrease they might see in supply and demand for their service in the future. Therefore, this analysis is made to provide an answer to this problem. By this analysis, they can gain a better understanding about the system. This analysis provides many benefits such as it measures data like distance, and helps with tasks such as route planning, expansion of the bicycle sharing system, manufacturing of desired bikes etc.

It makes use of the available dataset precisely and gives accurate data visualizations that can be used to improve the citi bike sharing system.

As more data becomes available, particularly in other areas with identically comprehensive bike sharing systems, a clearer picture of the role of this transport mode in these emergency situations can be better evaluated by this analysis and provide results with an increased accuracy.

Project Objectives

By the end of this project, one will:

1. Know the fundamental concepts and can work on IBM Cognos Analytics
2. Gain a broad understanding of plotting different graphs
3. Be able to create meaningful dashboards

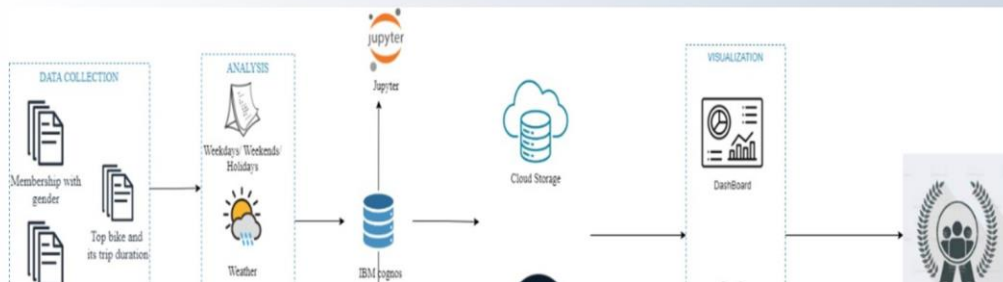
Goal

Goal

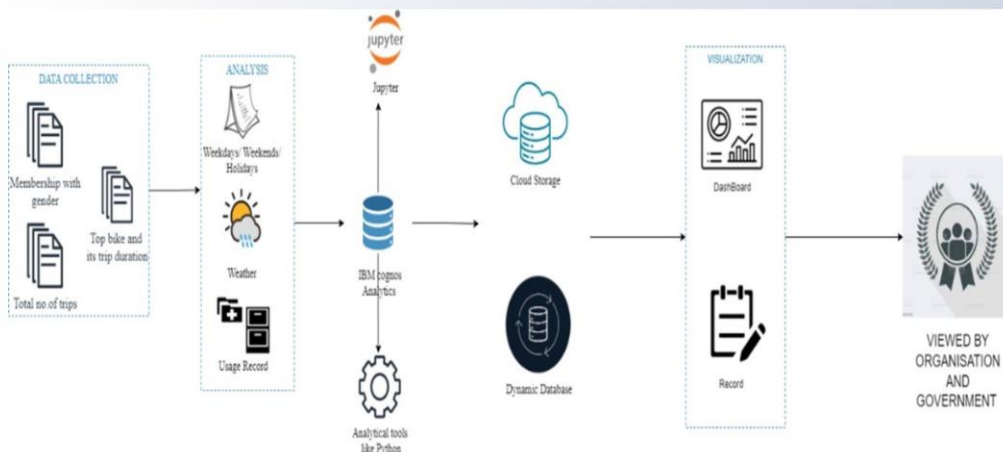
The goal of this analysis is to create an operating report of Citi Bike for the year 2018. The following data visualizations are created to understand the report

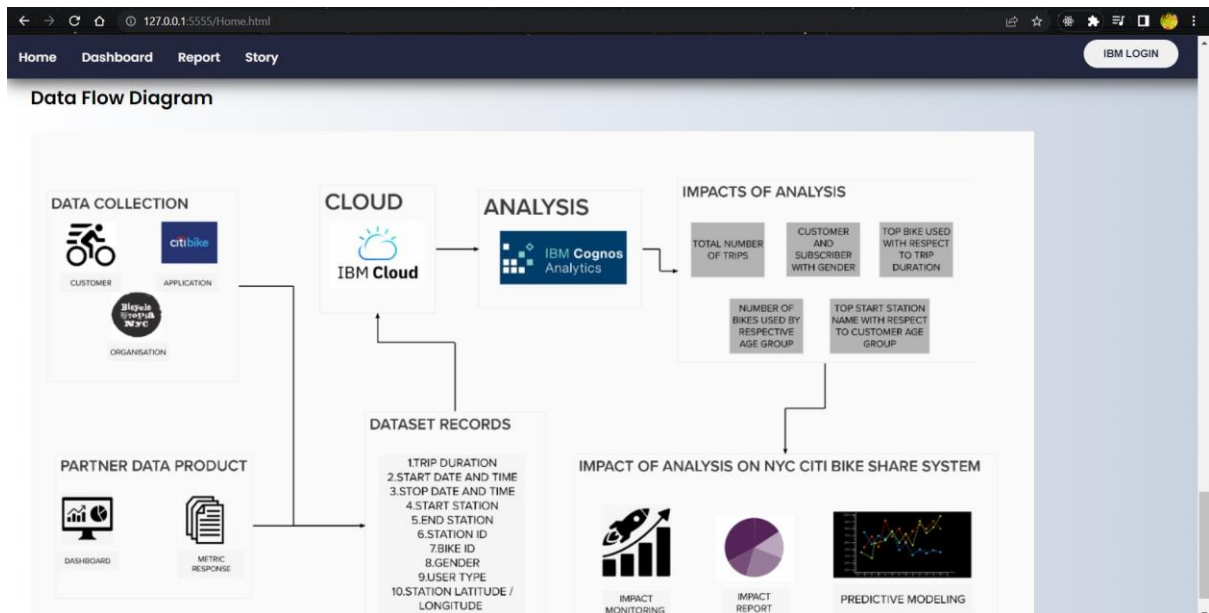
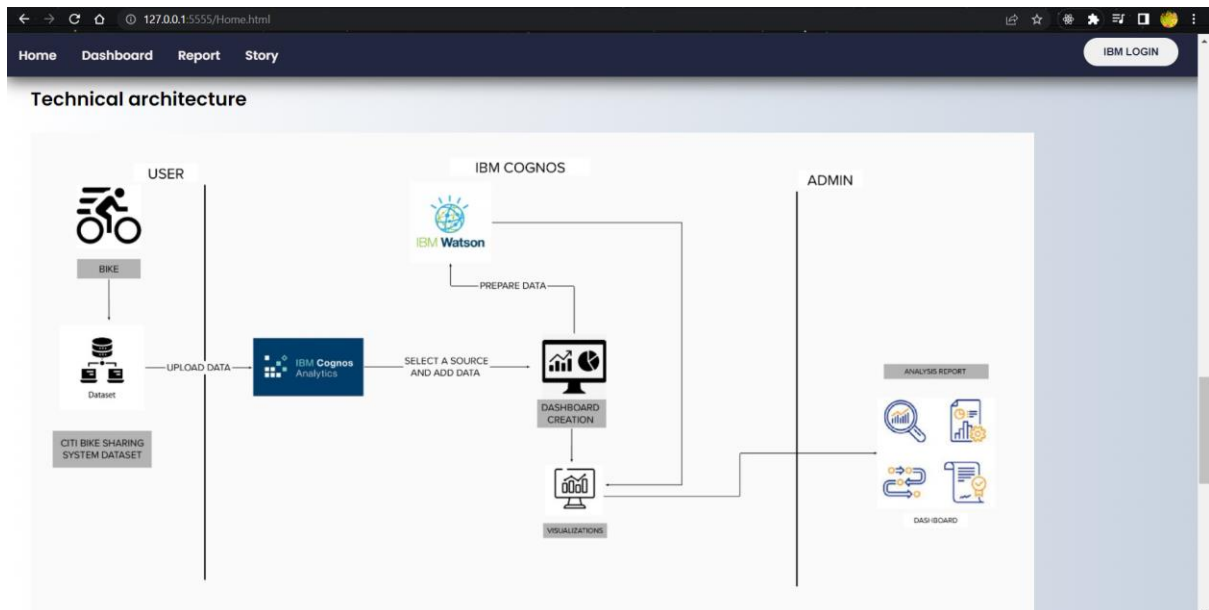
- 1.Total Number of Trips
- 2.What is Customer and subscriber with gender
- 3.Find the top bike used with respect to trip duration?
- 4.Calculating the number of bikes used by respective age groups
- 5.Top 10 Start Station Names with respect to Customer age group

Solution architecture

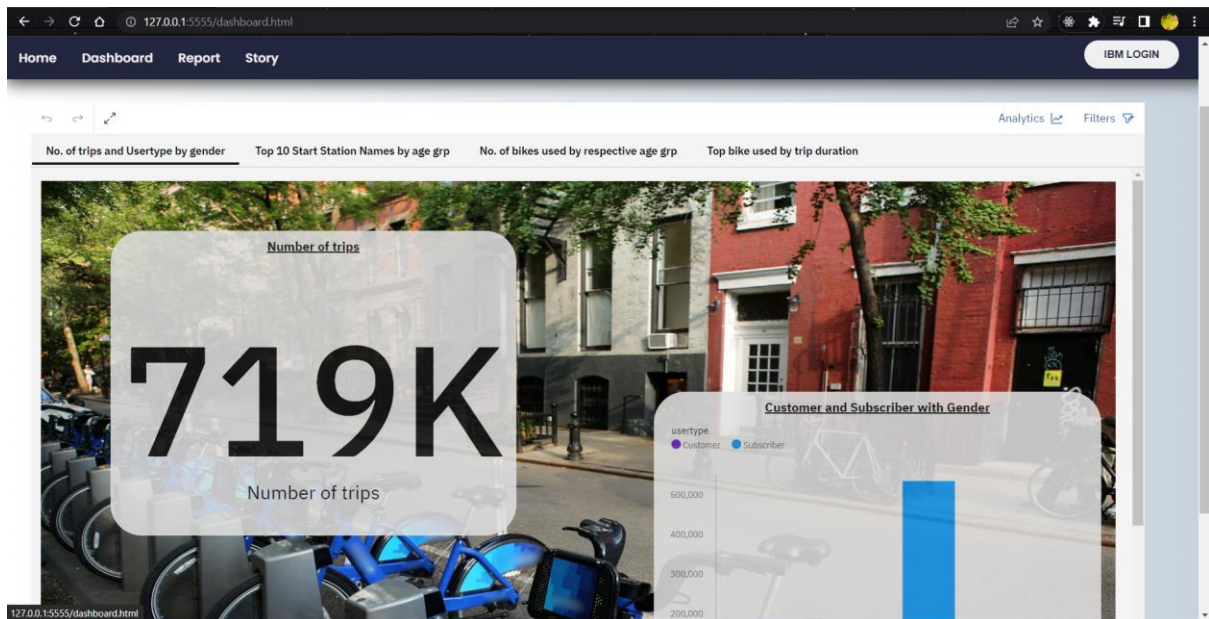


Solution architecture

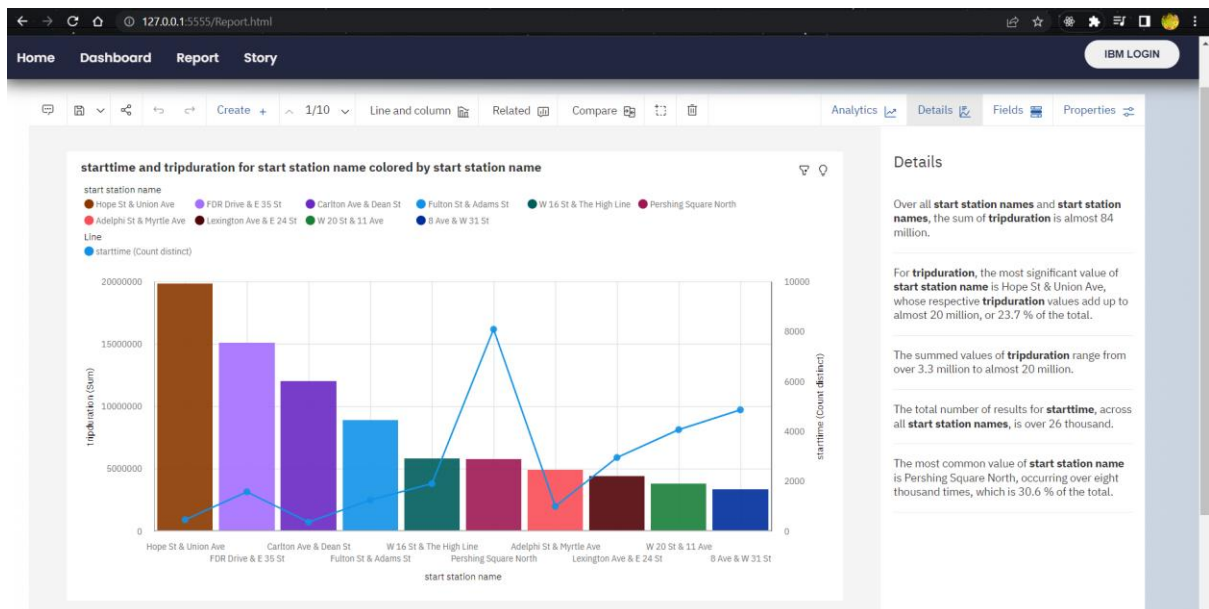




DASHBOARD PAGE:



REPORT PAGE:



STORY PAGE:

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A New Hint to Transportation-Analysis of the NYC Bike Share System

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TEAM MEMBERS

- CHARUMATHI. K
- ELEKKIYA.S
- MARISAKTHI.G
- NANDHINI.S
- SHIVANI.A

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Customer and Subscriber with gender

Usertype by gender colored by usertype

usertype
● Customer ● Subscriber

usertype (Count)

500,000
400,000
300,000
200,000
100,000
0

0 1 2

- The most common value of usertype is Subscriber, occurring almost 697 thousand times, which is 96.9% of the total.
- The total number of results for usertype, across all genders, is nearly 719 thousand.
- The most common value of gender is 1(Male), occurring nearly 538 thousand times, which is 74.8 % of the total.
- 0-Unknown , 1-Male, 2-Female

Prev scene | Next scene | Scene 3 of 6 | 0:02.8 | 0:10.0