

H-FARM & Bocconi



CASE x Bocconi

The challenge

SETTING

Capital Bikeshare is a company operating in the bike-sharing industry in Washington. Thanks to the data that the Company is able to collect every day, the Board would like to exploit them in order to **create a new business strategy** and increase the revenues.

For this reason, it hired a data science team to define a new business strategy using the company data.



WHICH IS THE INDUSTRY

Bike Sharing



WHO IS THE PROMOTER

Board of directors of Capital Bike Share Company



WHO IS THE OWNER

Data science team

You are part of this team



WHAT IS YOUR OBJECTIVE

Create a new business strategy starting from the data



The available dataset

DATA

To define a new business strategy, the data science and business strategy team have 2 datasets that it can use:

1. The first is the Capital Bike Share internal dataset that collects all information about individual rides made by users in Washington DC.
2. The second is the Weather Underground dataset that collects all historical weather information in Washington, by day and time.

1ST DATASET

- **Ride id:** it is a unique number for each ride
- **Rideable_type:** there are 2 types of bike, classic, electric
- **Started at:** starting day and time of the ride
- **Ended at:** day and time of end of the ride
- **Start station name_id:** name of the station where the journey begins
- **End station name_id:** name of the station where the journey ends
- **Member Type:** Indicates whether user was a "registered" member (Annual Member, 30-Day Member) or a "casual" rider (Single Trip, 24-Hour Pass, 3-Day Pass or 5-Day Pass)

2ND DATASET

- **Temperature:** maximum and minimum recorded temperature
- **Date:** day of data recording
- **Time:** hour of data recording
- **Conditions:** overcast, rain, clear etc..
- **Wind chill**
- **Wind speed**
- **Precipitation**
- **Snow depth**
- **Cloud cover**

Expected output

SCIENTIFIC METHOD

What the BoD expects are 4 outputs:

1. **Identify cycling habits** according to weather conditions
2. **Define new business strategy, identifying additional packages/services** to offer users based on usage habits to increase the revenues
3. **Set up an hypothesis testing** that can be used to validate your hypothesis on packages/services.
4. If possible, **run the tests.**

SOME EXAMPLES OF ADDITIONAL SERVICES AND PACKAGES

- **If a member hires a bicycle on a rainy day:**
If a member hires the bike in the rain/snow gets a discount or access to insurance at a reduced price
- **A member who hires a bike at the weekend:**
If a member hires the bike at the weekend with the sun, the second bike is half price (for your friend or partner)
- **A member who hires bike more than 1 hour:**
if a member hires a bike for more than one hour, the company offers to buy it for €80, (if the residual value of the bike is lower than €80)



Links to download data

THE SOURCES

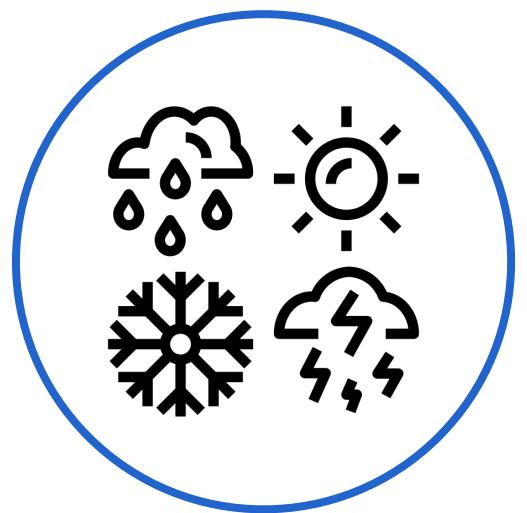
We will share with you 3 links:



1. **The first link** redirects to the page on which you can **download the data about the Capital Bikeshare rides**. You have to concentrate your attention only on the last 3 months available (February, March, April 2021)



2. **The second link** redirects to the Capital Bikeshare webpage on which you can find all relevant **information about the company services** (prices, bike types, etc)



3. **The third link** redirects to the website on which you can download the **weather information** on Washington.

Big Shoes and Beautiful Mind

