

# Bike sharing demand

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## Problem statement

A bike-sharing system is a service in which bikes are made available for shared use to individuals on a short term basis for a price or free. Many bike share systems allow people to borrow a bike from a "dock" which is usually computer-controlled wherein the user enters the payment information, and the system unlocks it.

This bike can then be returned to another dock belonging to the same system.



# Tools

01

Numpy & pandas

02

Plotly

03

Jupyter notebook

04

Seaborn

05

Matplotlib

06

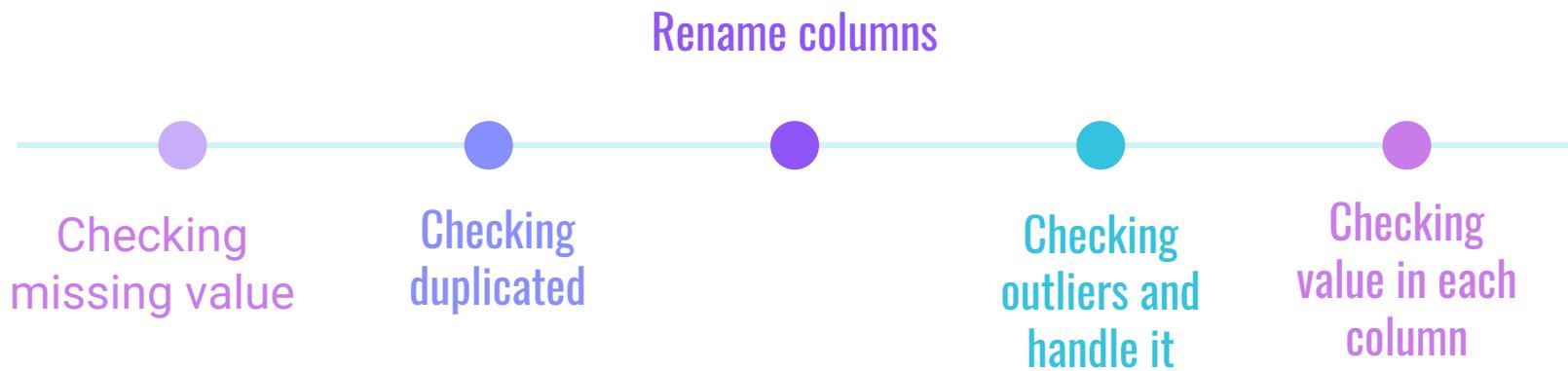
Skikit-learn

# Data set shaped (17379,17)

instant	dteday	season	yr	mnth	hr	holiday	weekday	workingday	weathersit	temp	atemp	hum	windspeed	casual	registered	cnt	
0	1	2011-01-01	1	0	1	0	0	6	0	1	0.24	0.2879	0.81	0.0000	3	13	16
1	2	2011-01-01	1	0	1	1	0	6	0	1	0.22	0.2727	0.80	0.0000	8	32	40
2	3	2011-01-01	1	0	1	2	0	6	0	1	0.22	0.2727	0.80	0.0000	5	27	32
3	4	2011-01-01	1	0	1	3	0	6	0	1	0.24	0.2879	0.75	0.0000	3	10	13
4	5	2011-01-01	1	0	1	4	0	6	0	1	0.24	0.2879	0.75	0.0000	0	1	1
5	6	2011-01-01	1	0	1	5	0	6	0	2	0.24	0.2576	0.75	0.0896	0	1	1
6	7	2011-01-01	1	0	1	6	0	6	0	1	0.22	0.2727	0.80	0.0000	2	0	2
7	8	2011-01-01	1	0	1	7	0	6	0	1	0.20	0.2576	0.86	0.0000	1	2	3
8	9	2011-01-01	1	0	1	8	0	6	0	1	0.24	0.2879	0.75	0.0000	1	7	8
9	10	2011-01-01	1	0	1	9	0	6	0	1	0.32	0.3485	0.76	0.0000	8	6	14



# Data Cleaning





```
instant      0
dteday       0
season       0
yr           0
mnth         0
hr           0
holiday      0
weekday      0
workingday   0
weathersit   0
temp          0
atemp         0
hum           0
windspeed    0
casual        0
registered   0
cnt           0
dtype: int64
```



No missing  
value of the  
data set



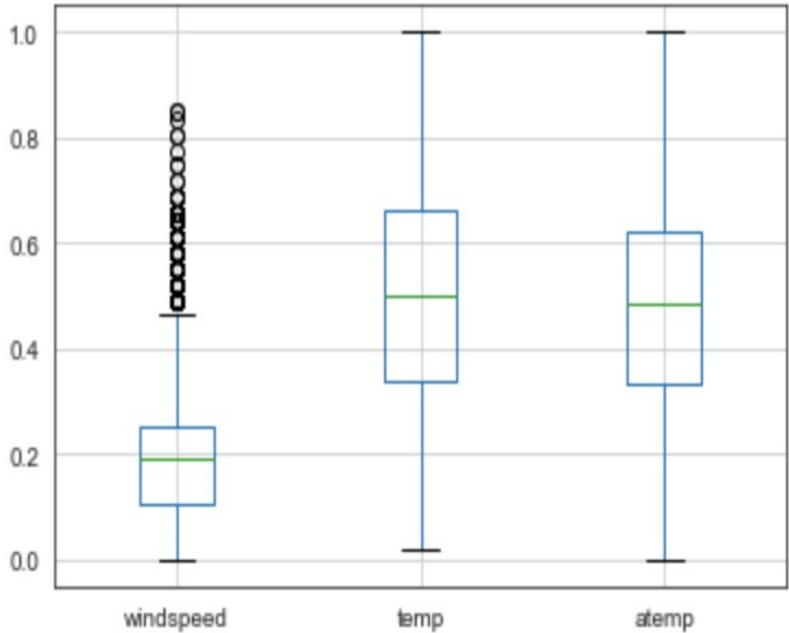


```
Index(['rec_id', 'datetime', 'season', 'year', 'month', 'hr', 'is_holiday',
       'weekday', 'is_workingday', 'weather', 'temperature', 'atemp',
       'humidity', 'windspeed', 'casual', 'registered', 'total_count'],
      dtype='object')
```

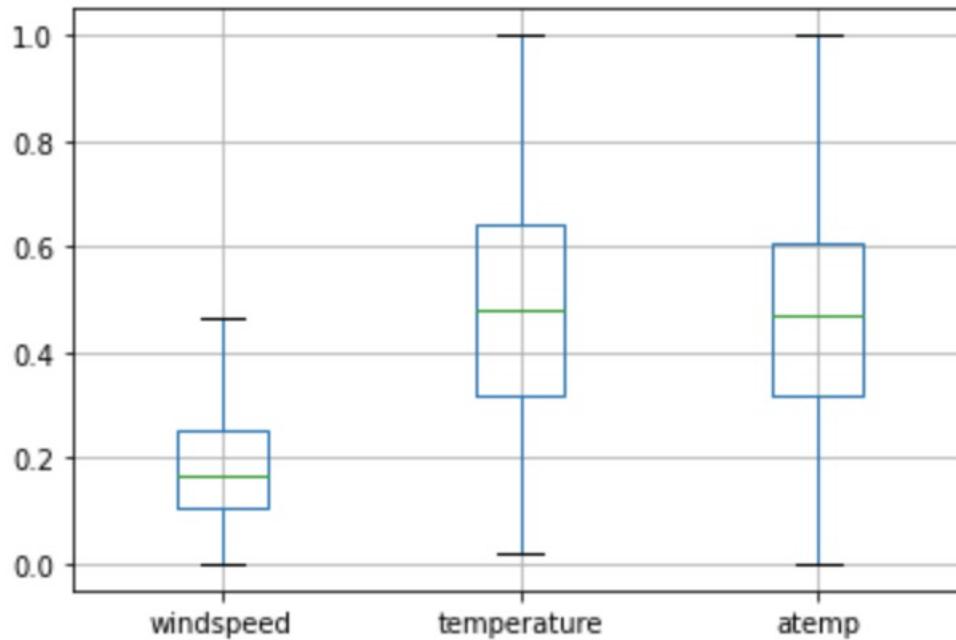


## Rename columns of the data train





I have outliers of the  
data train in column  
(windspeed)



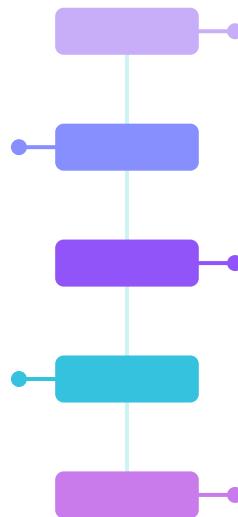
datetime	season	year	month	hr	is_holiday	weekday	weather	temperature	atemp	humidity	windspeed	casual	registered	total_count	
2011-03-25	Spring	2011	3	16	No	Saturday	Yes	Cloudy	0.34	0.3030	0.34	0.2985	23	127	150
2011-10-07	Fall	2011	10	13	No	Saturday	Yes	Clear	0.60	0.6212	0.46	0.0000	95	210	305
2012-11-30	Fall	2012	11	0	No	Saturday	Yes	Clear	0.26	0.2576	0.70	0.1642	4	48	52
2011-07-04	Summer	2011	7	8	Yes	Tuesday	No	Clear	0.70	0.6667	0.74	0.1045	42	44	86
2012-10-24	Fall	2012	10	10	No	Thursday	Yes	Cloudy	0.54	0.5152	0.73	0.0000	29	142	171

*Mapping variables season, year, is\_holiday, weather, weekday, is\_workingday*



# Data Visualization

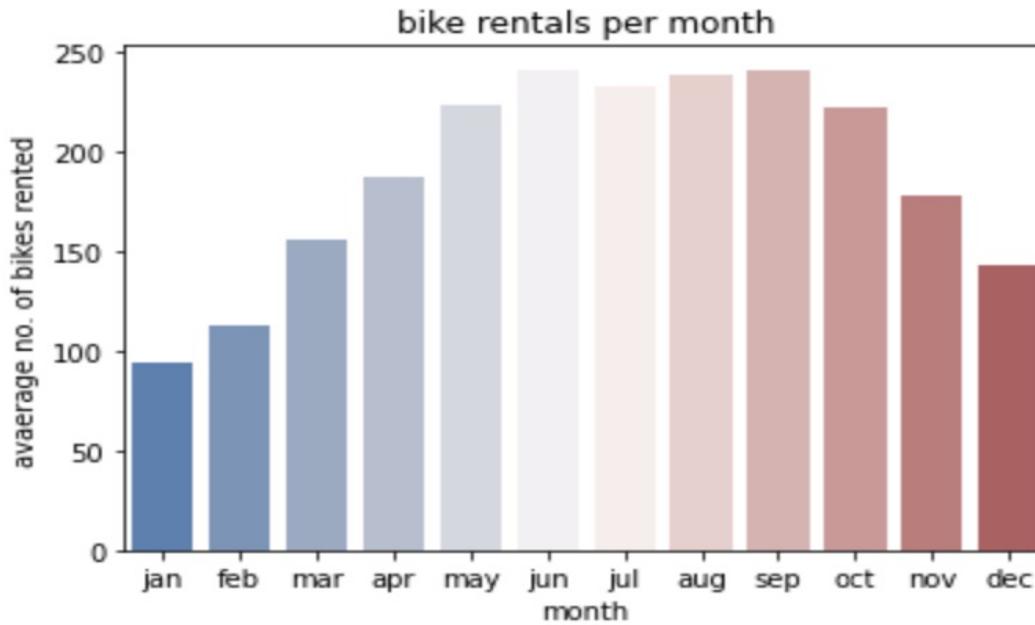
Plotting a pairplot btween  
(hour, temperature,  
windspeed, total\_count)



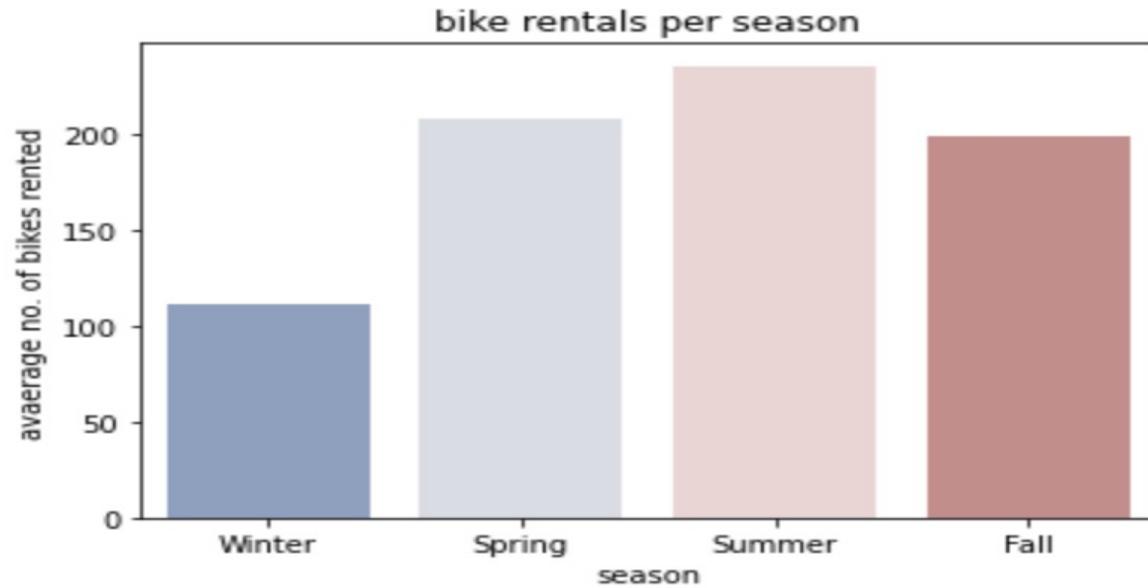
Visualize the  
numerical value

Find the correaltion between  
some varible

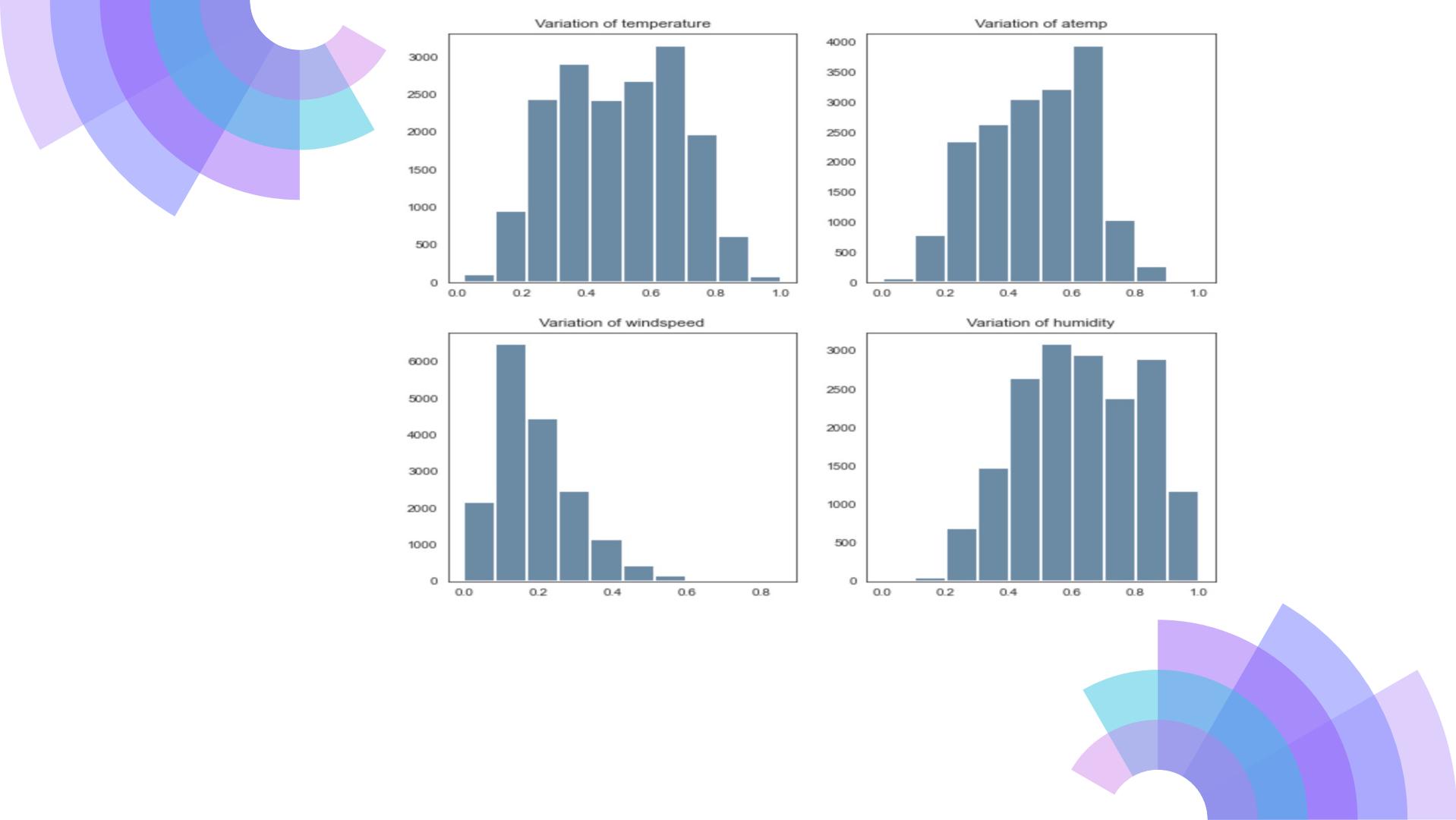


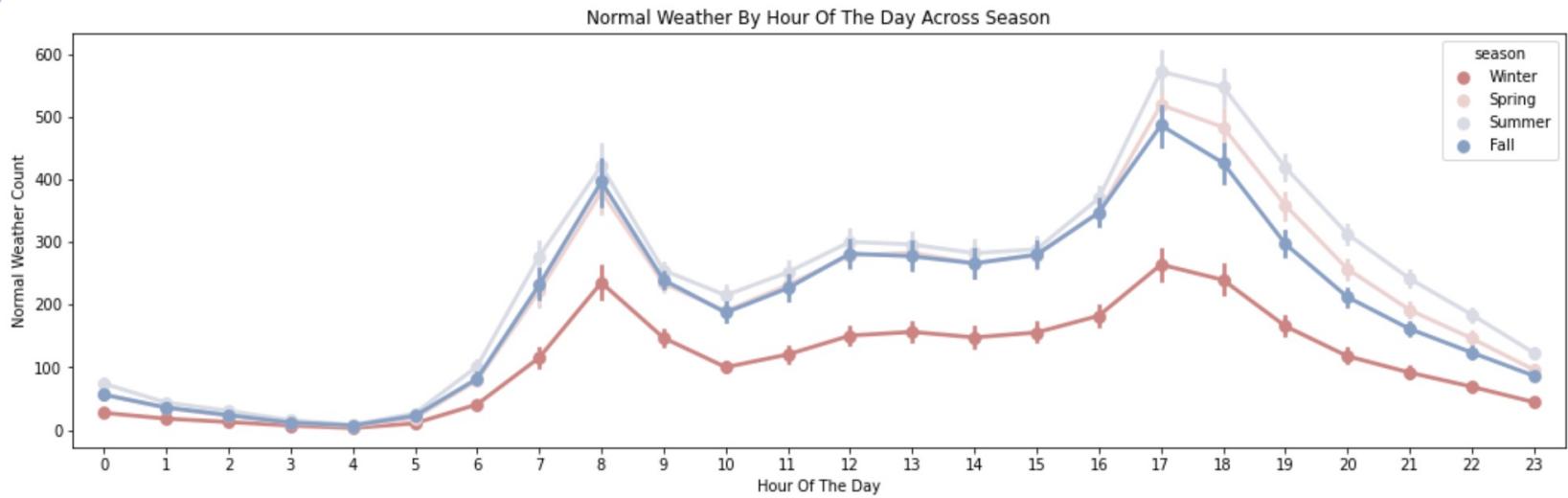


Observation: Bike rental is more between May to October month

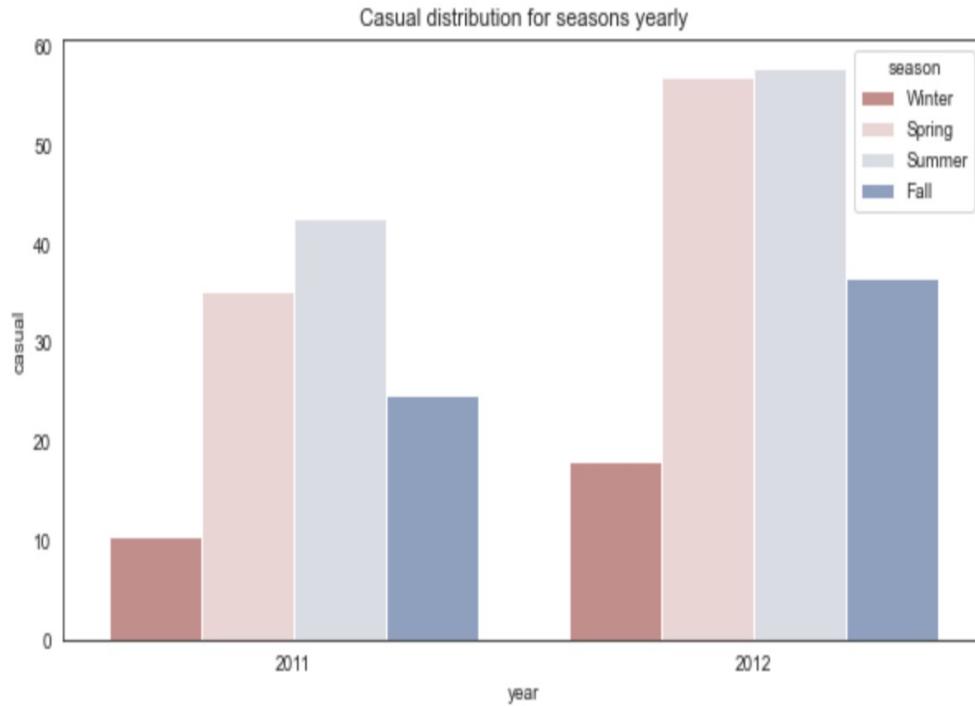


Observation: Bike rental is more when season is summer then spring and then fall.





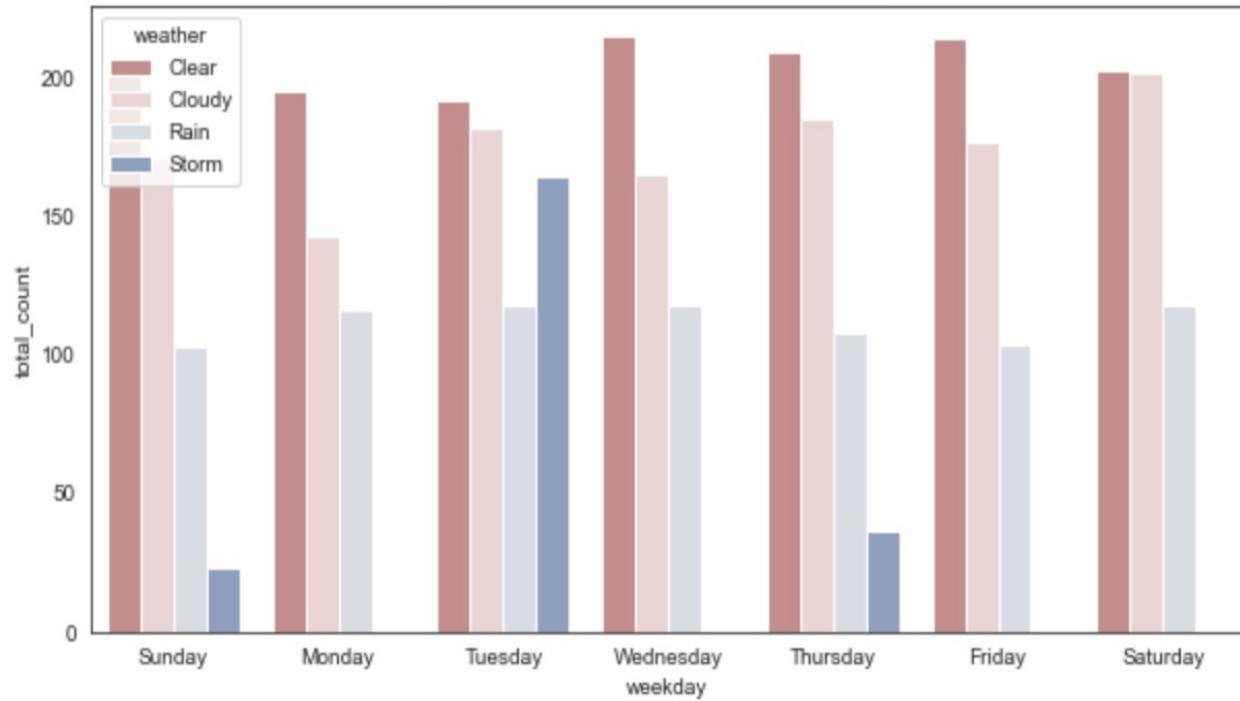
Observation: We see a significant rise in the number of the day across season in the hour 7-16



Observation: is more in 2012 compared 2011

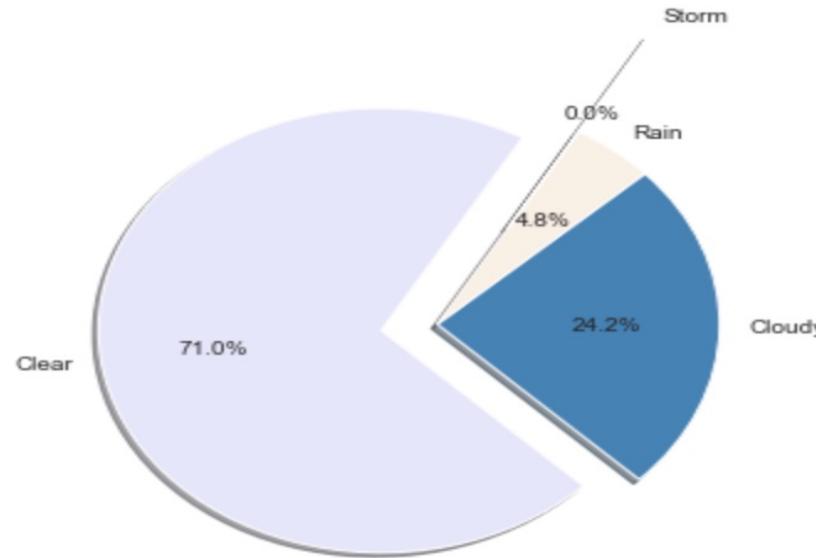
A circular sunburst chart divided into four main segments, each representing a season: Winter (dark red), Spring (light orange), Summer (light grey), and Fall (blue). Each segment is further subdivided into smaller sectors, indicating a hierarchical breakdown of the data.

weathersit weekly distribution of counts

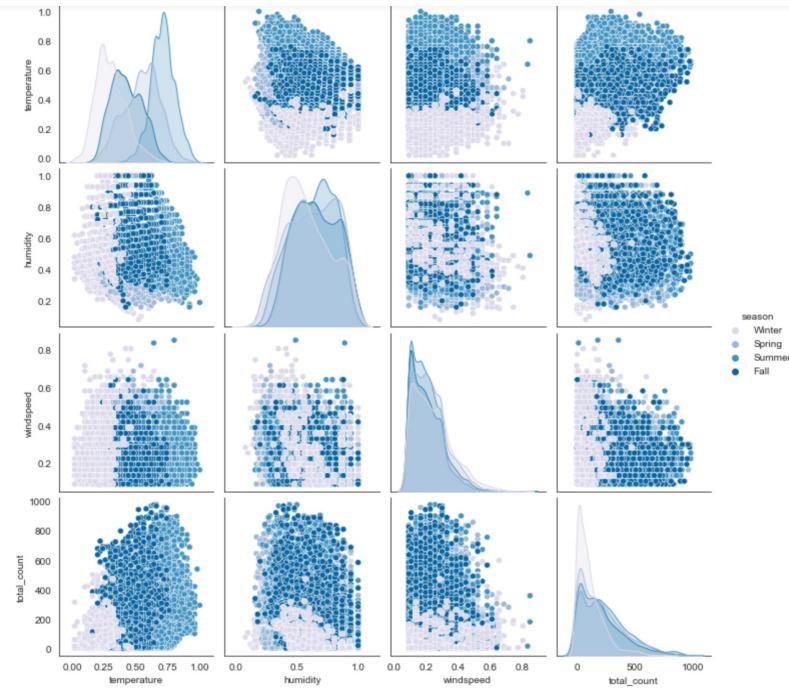
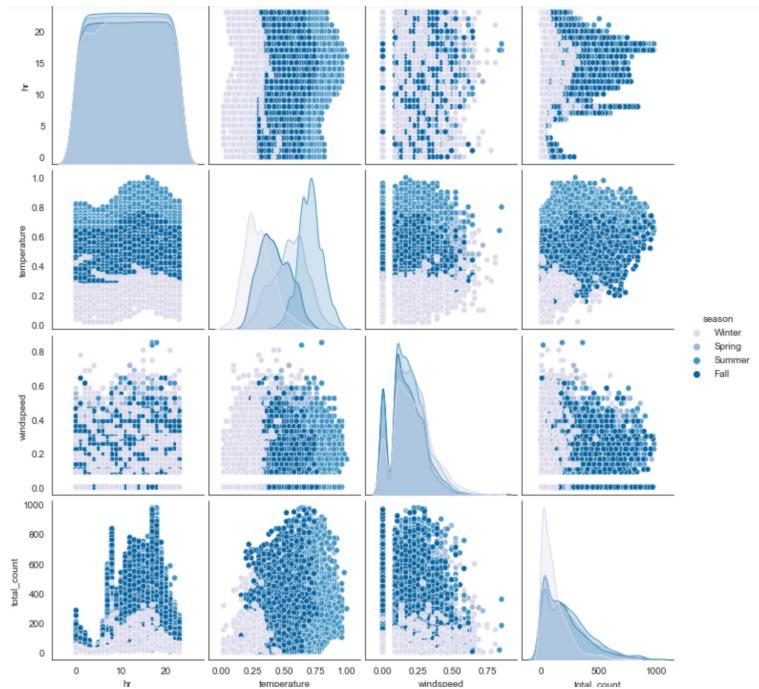


Observation: The median of total\_count remains the same on all the days of week

Bike usage based on weather



**Observation:** Clear skies have most occurred with the 2 year period whereas Storm occurrence are zero.





Observation: temperature and atemp is a highest correlation so we drop atemp



# REVIEWING CONCEPTS IS A GOOD IDEA

## MERCURY

Mercury is the closest planet to the Sun

## VENUS

Venus has a beautiful name

## JUPITER

It's the biggest planet in the Solar System



## MARS

Despite being red, Mars is a cold place

## SATURN

Saturn is the ringed one and a gas giant

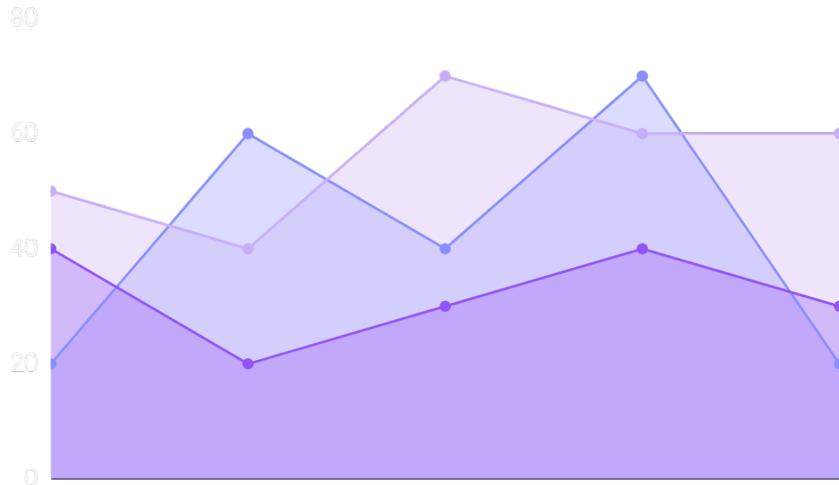
## NEPTUNE

Neptune is the farthest planet from the Sun





# MARKET TRENDS



To modify this graph, click on it, follow the link, change the data and paste the resulting graph here, replacing this one

- Despite being red, Mars is a very cold place
- Venus has a beautiful name, but it's terribly hot
- Mercury is the closest planet to the Sun





# THEM VS US

## THEM

Mercury is the closest planet to the Sun and the smallest one in the Solar System

## US



Venus is the second planet from the Sun. Its atmosphere is very poisonous



# COMPETITORS



## MARS

Mars is full of iron oxide dust, giving this planet its reddish cast



## JUPITER

Jupiter is the biggest one and the fourth-brightest object in the sky



## SATURN

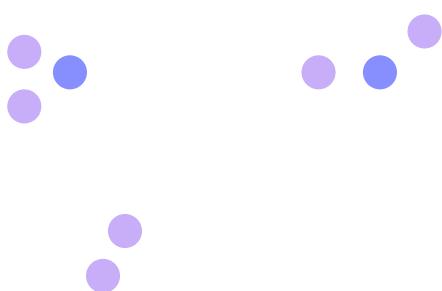
Saturn is a gas giant, composed mostly of hydrogen and helium



# AWESOME WORDS



# TARGET



•

•

## GENDER

• 60%



• 40%

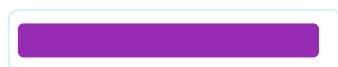


## AVERAGE SPEND PER CUSTOMER

\$50.00

## AGE

25 - 45





# MARKET SIZE



**40%**

**MERCURY**

Mercury is the closest planet to the Sun



**60%**

**SATURN**

It is composed of hydrogen and helium



**80%**

**MARS**

Despite being red, Mars is a cold place



**75%**

**JUPITER**

It's the biggest object in the Solar System





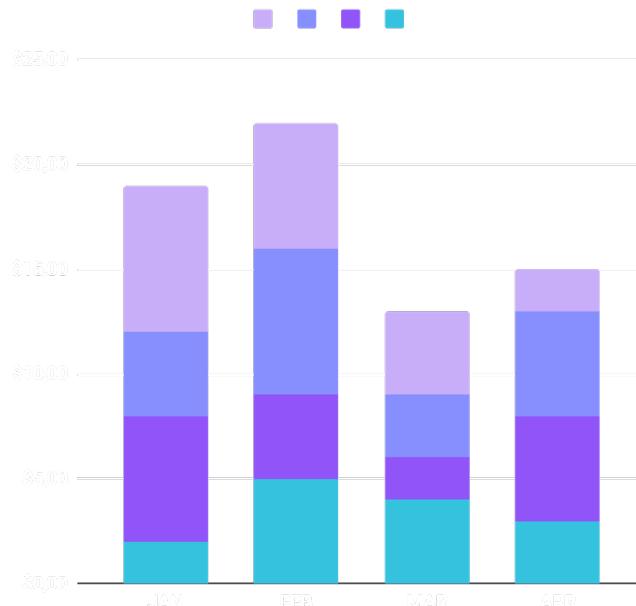
# MARKET SHARE

## MERCURY

Mercury is the closest object to the Sun

## MARS

Despite being red, Mars is a cold place



## NEPTUNE

Neptune is the farthest planet from the Sun

## JUPITER

Jupiter is the biggest planet of them all

To modify this graph, click on it, follow the link, change the data and paste the new graph here





# COMPETITION ANALYSIS



JUPITER



MERCURY



VENUS



MARS

	JUPITER	MERCURY	VENUS	MARS
COMPETITOR 01	✓	✗	✗	✓
COMPETITOR 02	✗	✗	✓	✗
COMPETITOR 03	✗	✗	✓	✗



# OUR SERVICES



## MERCURY

Mercury is the closest planet to the Sun and the smallest one



## SATURN

It is the ringed planet. It is composed of hydrogen and helium



## NEPTUNE

Neptune is the fourth-largest planet in the Solar System



## JUPITER

Jupiter is a gas giant and the biggest planet in the Solar System





# OUR PLANS

BASIC	PRO	PREMIUM
Despite being red, Mars is a very cold place	Venus has a beautiful name, but it's terribly hot	Mercury is the closest planet to the Sun
\$50	\$75	\$95





# SALES AND DISTRIBUTION

CHANNEL 1



Mercury is the closest planet to the Sun and the smallest one

CHANNEL 2



It is the ringed planet. It is composed of hydrogen and helium

CHANNEL 3



Jupiter is a gas giant and the biggest object in the Solar System

CHANNEL 4



Despite being red, Mars is actually a very cold place





# ADVERTISING AND PROMOTION

CHANNEL 1



ADVERTISING

It's the farthest planet  
from the Sun

CHANNEL 2



PR

Venus is the second  
planet from the Sun

CHANNEL 3



ONLINE

It's only a bit larger  
than the Moon





# 04 MANAGEMENT PLAN

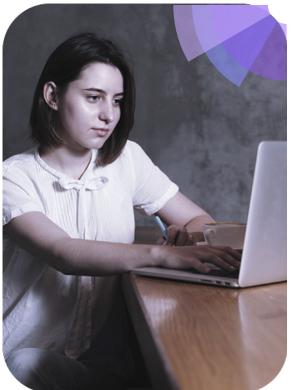


# OUR TEAM



SARAH LEE

You can  
replace the  
image on the  
screen with  
your own



AVA SMITH

You can  
replace the  
image on the  
screen with  
your own



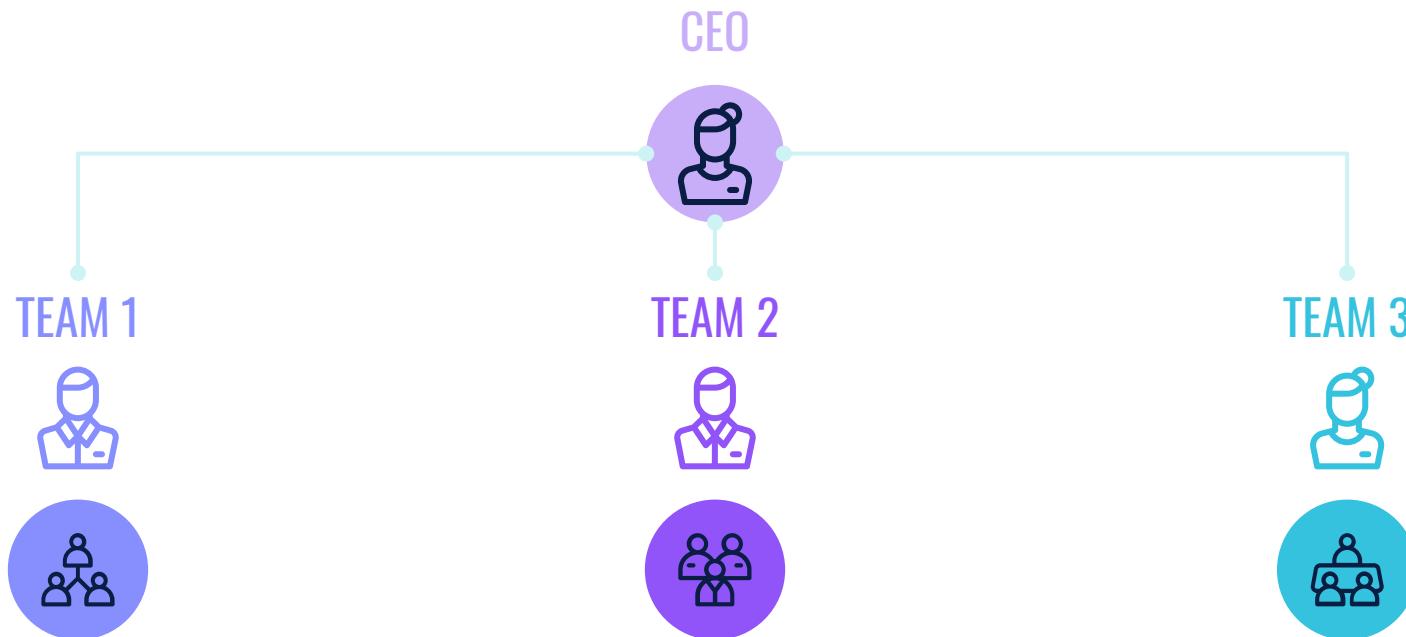
STEPHEN JAY

You can  
replace the  
image on the  
screen with  
your own





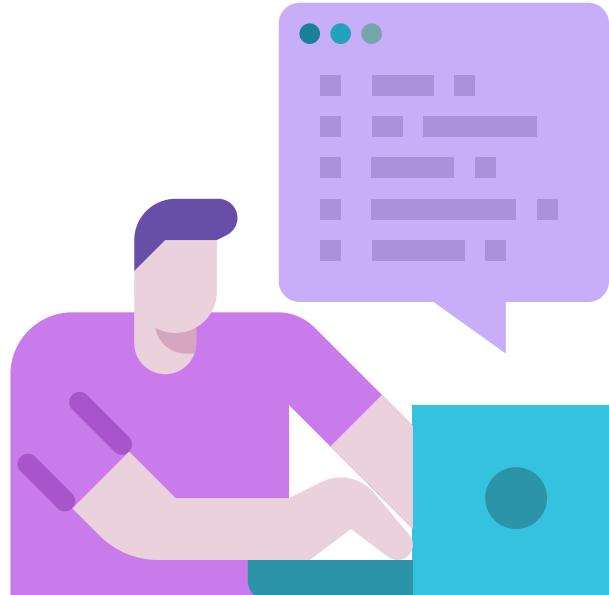
# ORGANIZATIONAL CHART





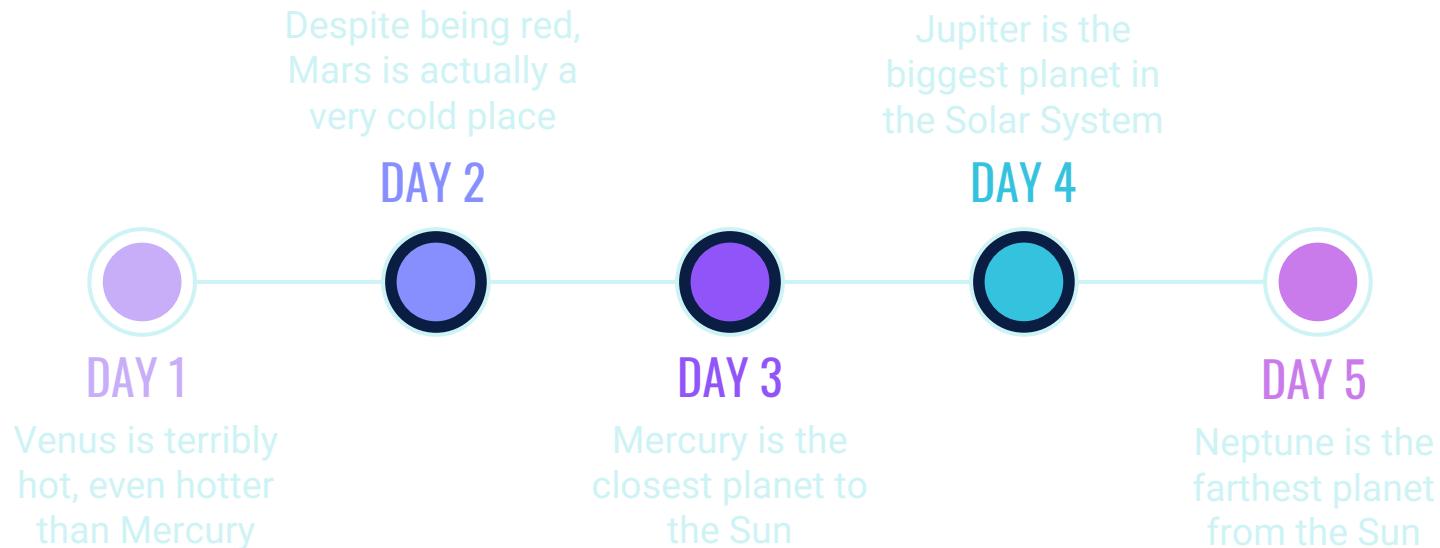
# 05

## OPERATING PLAN





# OUR PROCESS



# 06

## FINANCIAL PLAN





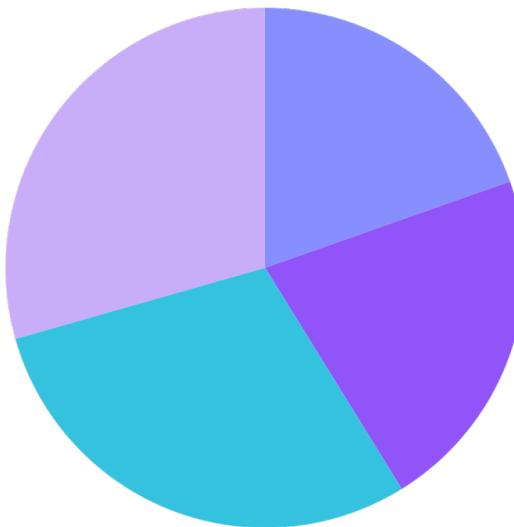
# PREDICTED GROWTH

## NEPTUNE

Neptune is the farthest planet from the Sun

## MARS

Despite being red, Mars is a very cold place



## JUPITER

It's the biggest planet in the Solar System

## MERCURY

Mercury is the closest planet to the Sun

To modify this graph, click on it, follow the link, change the data and paste the resulting graph here, replacing this one



# BALANCE SHEET

1M

ASSETS

What the company owns

300K

LIABILITIES

What the company owes

700K

EQUITY

Difference between both

# THANKS



Do you have any questions?  
[addyouremail@freepik.com](mailto:addyouremail@freepik.com)

+91 620 421 838

[yourcompany.com](http://yourcompany.com)

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# ALTERNATIVE RESOURCES

## VECTORS

- Modern web design concept with flat style
- App development concept with flat design
- Graphic design idea concept

## PHOTOS

- Workers in the office during pandemic wearing medical masks
- People in the office working during pandemic with masks on
- Young man with laptop and headphones
- Asian woman using laptop
- Young girl speaking on the phone in the office
- Modern woman using laptop
- Cute young woman working on a laptop

