TAMU Datathon 2023

# INCREASING OUR SUSTAINABILITY AWARENESS

Data Unlocked: Shaping a Sustainable Tomorrow

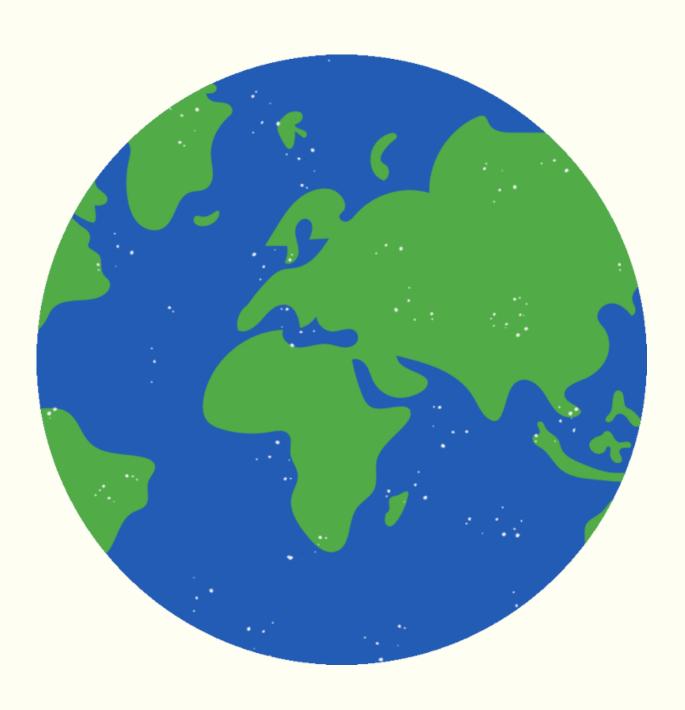
By Kyeongseo Choi





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- What is this project about?
- 2 Explanation about code
- Data Visualization Charts/graphs
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- 5 What's next?



#### WHAT IS THIS PROJECT ABOUT?

OCTOBER

International Campus Sustainability Month

How are we going to increase awareness about sustainability?

What influenced and changed the participants?

FOR OUR TOMORROW

Analyze what page we are on now.

How we have been changed as we grow and learn about the environment.

4 OUR NEXT STEP

How to develop the method to aware people.
What should we

### ABOUT CODE

USED: Pandas

Matlab

WordCloud

#### • Cleaned data

	Data Cleaning																
In [152]:	<pre>df = pd.read_csv("Sustainability_Survey(Responses).csv")</pre>																
In [153]:																	
Out[153]:		Timestamp	I turn off the light when I'm out of the room.	I turn off the water when I brush my teeth.	I walk or ride a bike(or bus) instead of driving a car when going to school.	l do recycle.	I use the water bottle and multi-use container instead of disposable product.	I turn off the light when I'm out of the room1	I turn off the water when I brush my teeth1	I walk or ride a bike(or bus) instead of driving a car when going to school1	I do recycle1	I use the water bottle and multi-use container instead of disposable product1	I turn off the light when I'm out of the room2	I turn off the water when I brush my teeth2	I walk or ride a bike(or bus) instead of driving a car when going to school2	I do recycle2	i d i
	0	10/28/2023 22:01:32	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
	1	10/28/2023 22:05:07	Yes	Yes	Yes	Sometimes	Sometimes	Yes	Yes	Yes	Sometimes	Sometimes	Yes	Yes	Yes	Sometimes	٤
	2	10/28/2023 22:05:21	Yes	Yes	Sometimes	No	Yes	Yes	Yes	Sometimes	Sometimes	Yes	Yes	Yes	No	Yes	s
	3	10/28/2023 22:06:33	Yes	Yes	Yes	Sometimes	Sometimes	No	Yes	No	No	No	No	Yes	No	No	
	4	10/28/2023 22:12:21	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	No	No	

• Created Google Form to make own dataset

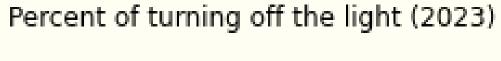
	thon: Build Your Own. survet. It won't take long.	
Please complete the	_	
Not shared	Switch account	6
* Indicates required qu	uestion	
Please check what	applys to you for year of <b>2023</b> .	
I turn off the light w	hen I'm out of the room. *	
○ Yes		
○ No		
Sometimes		
I turn off the water v	when I brush my teeth. *	
○ Yes		
○ No		
○ Sometimes		

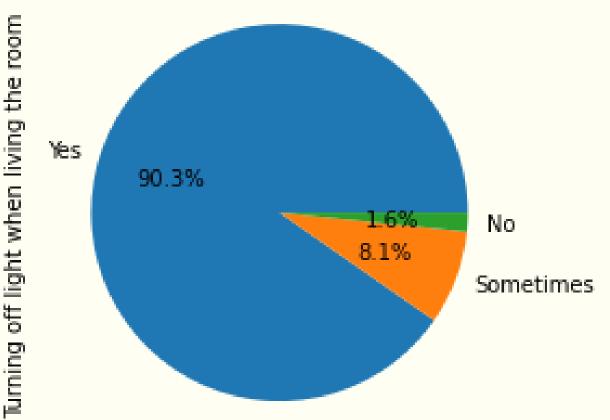
In [159]:	<pre># drop useless colomn df.drop (['Timestamp'], axis=1)</pre>														
Out[159]:															
		I turn off the light when I'm out of the room.	I turn off the water when I brush my teeth.	I walk or ride a bike(or bus) instead of driving a car when going to school.	I do recycle.	I use the water bottle and multi-use container instead of disposable product.	I turn off the light when I'm out of the room1	I turn off the water when I brush my teeth1	I walk or ride a bike(or bus) instead of driving a car when going to school1	I do recycle1	I use the water bottle and multi-use container instead of disposable product1	I turn off the light when I'm out of the room2	I turn off the water when I brush my teeth2	I walk or ride a bike(or bus) instead of driving a car when going to school2	I do recycle2
	0	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	1	Yes	Yes	Yes	Sometimes	Sometimes	Yes	Yes	Yes	Sometimes	Sometimes	Yes	Yes	Yes	Sometimes
	2	Yes	Yes	Sometimes	No	Yes	Yes	Yes	Sometimes	Sometimes	Yes	Yes	Yes	No	Yes
	3	Yes	Yes	Yes	Sometimes	Sometimes	No	Yes	No	No	No	No	Yes	No	No
	4	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	No	No

# DATA VISUALIZATION

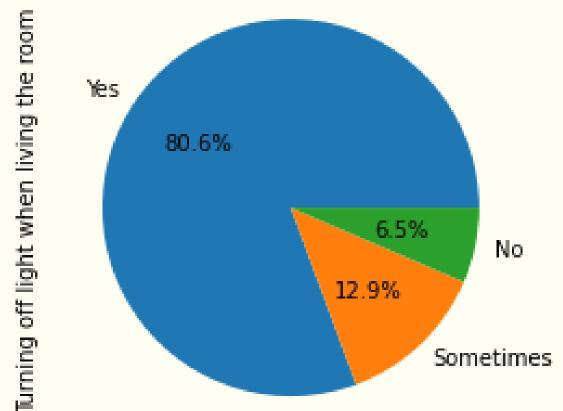


### I TURN OFF THE LIGHT WHEN I'M OUT OF THE ROOM.

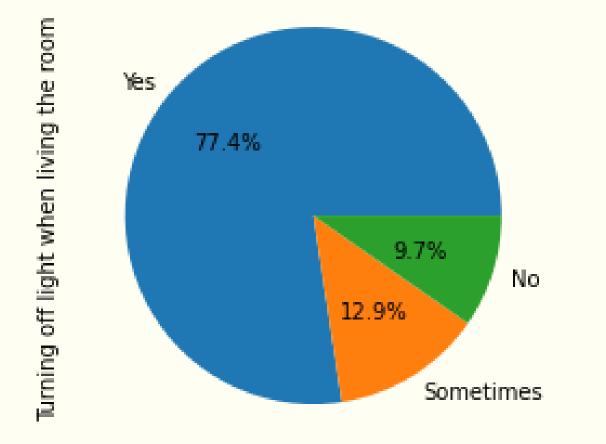




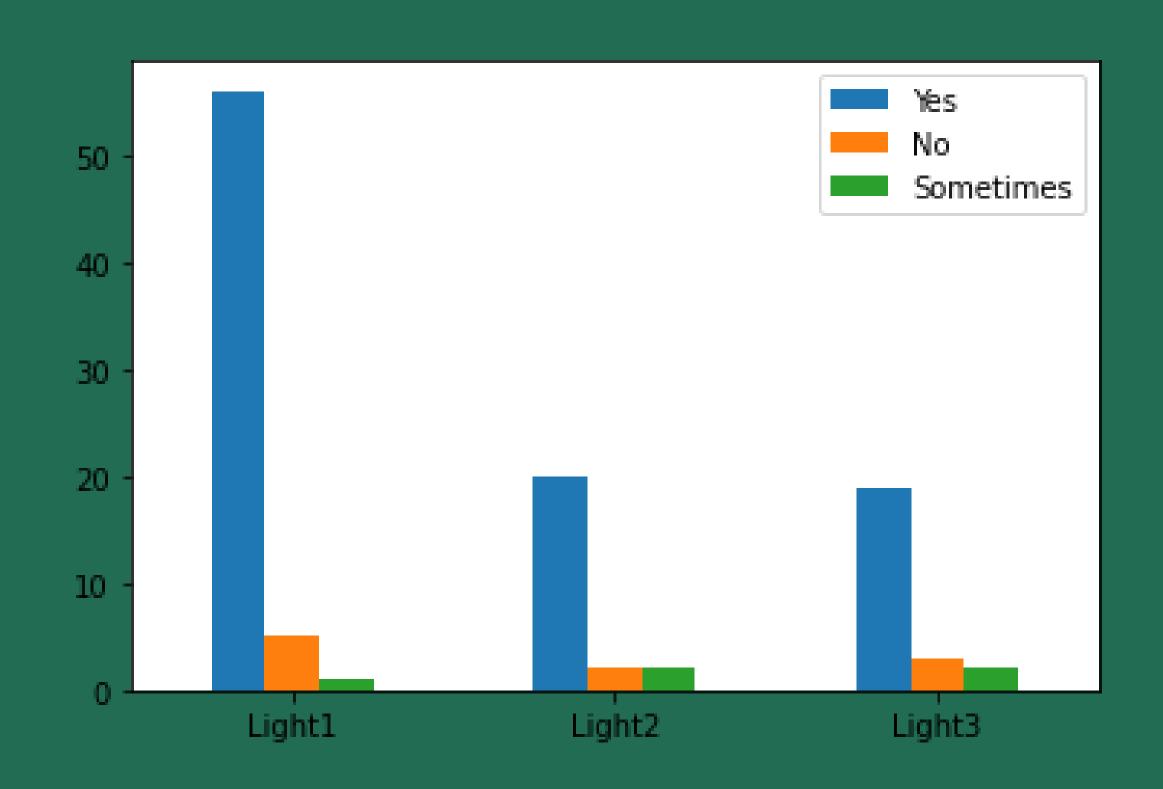
Percent of turning off the light (last 5 years)



Percent of turning off the light (last 10 years)

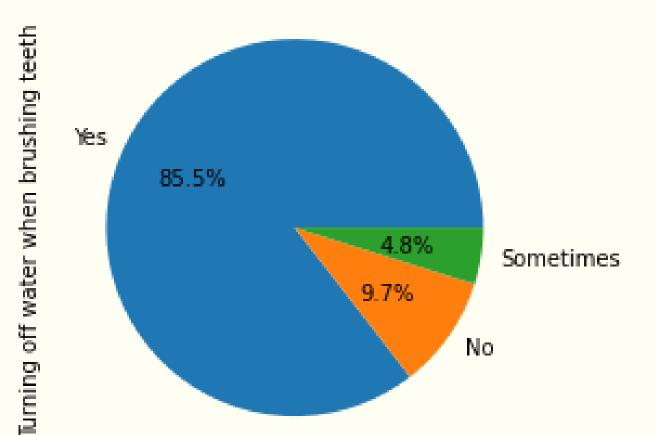


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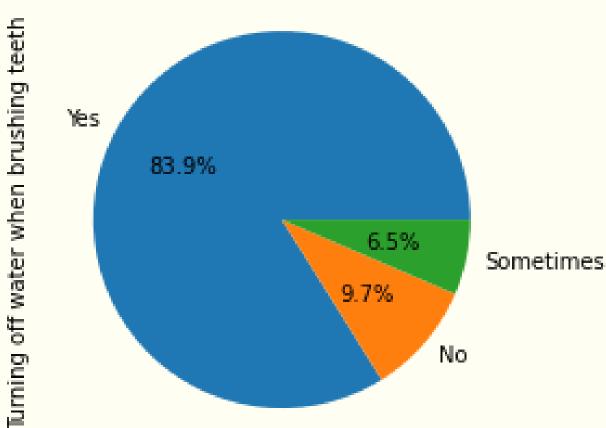


## I TURN OFF THE WATER WHEN I BRUSH MY TEETH.

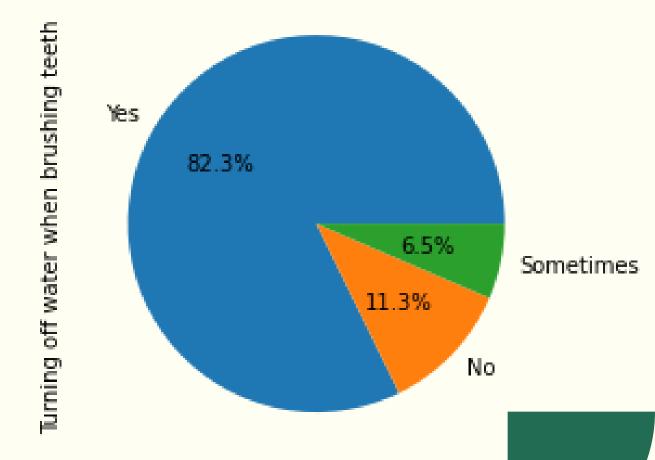
Percent of turning off the water (2023)



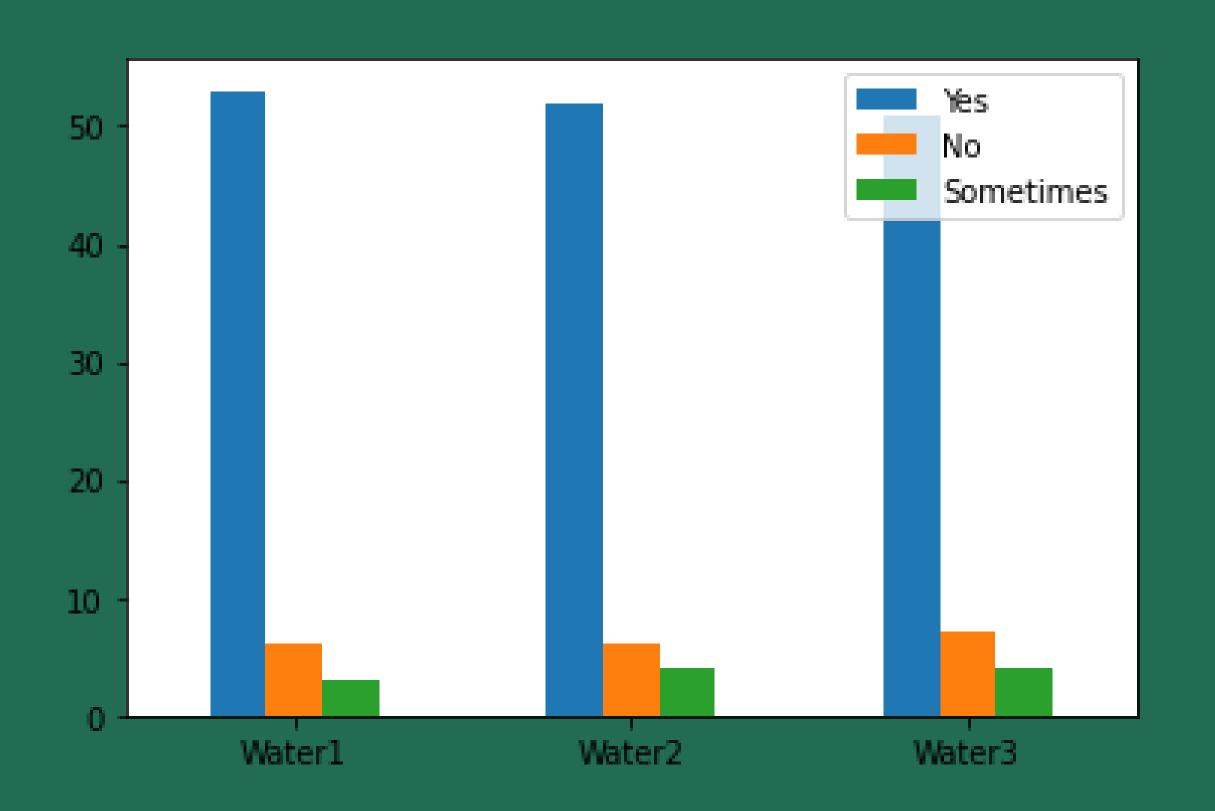
Percent of turning off the water (last 5 years)



Percent of turning off the water (last 10 years)

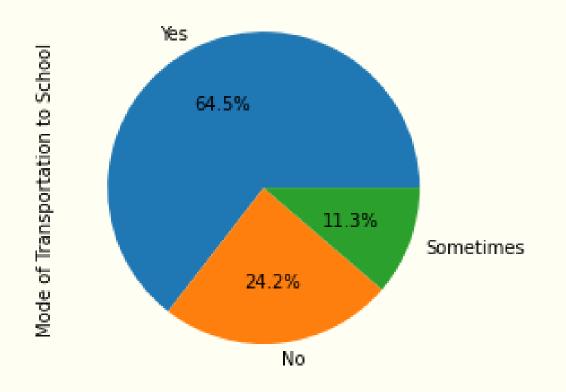


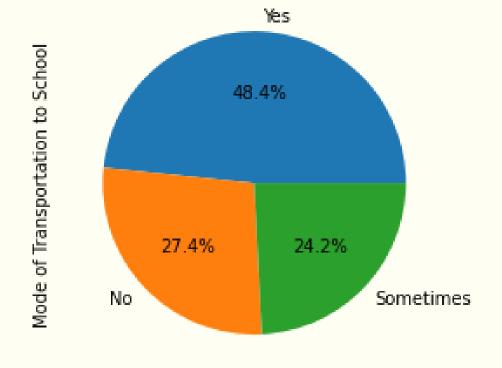
## I TURN OFF THE WATER WHEN I BRUSH MY TEETH.

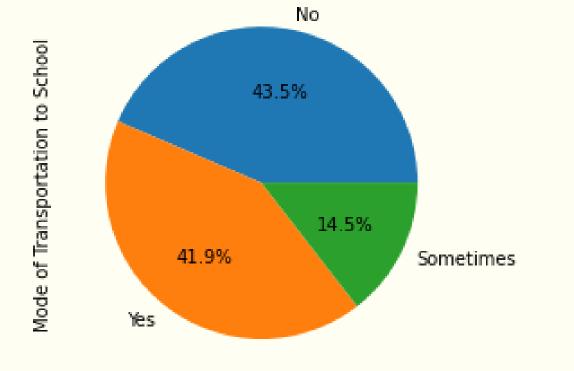


# I WALK/BIKE/BUS INSTEAD OF DRIVING TO THE SCHOOL

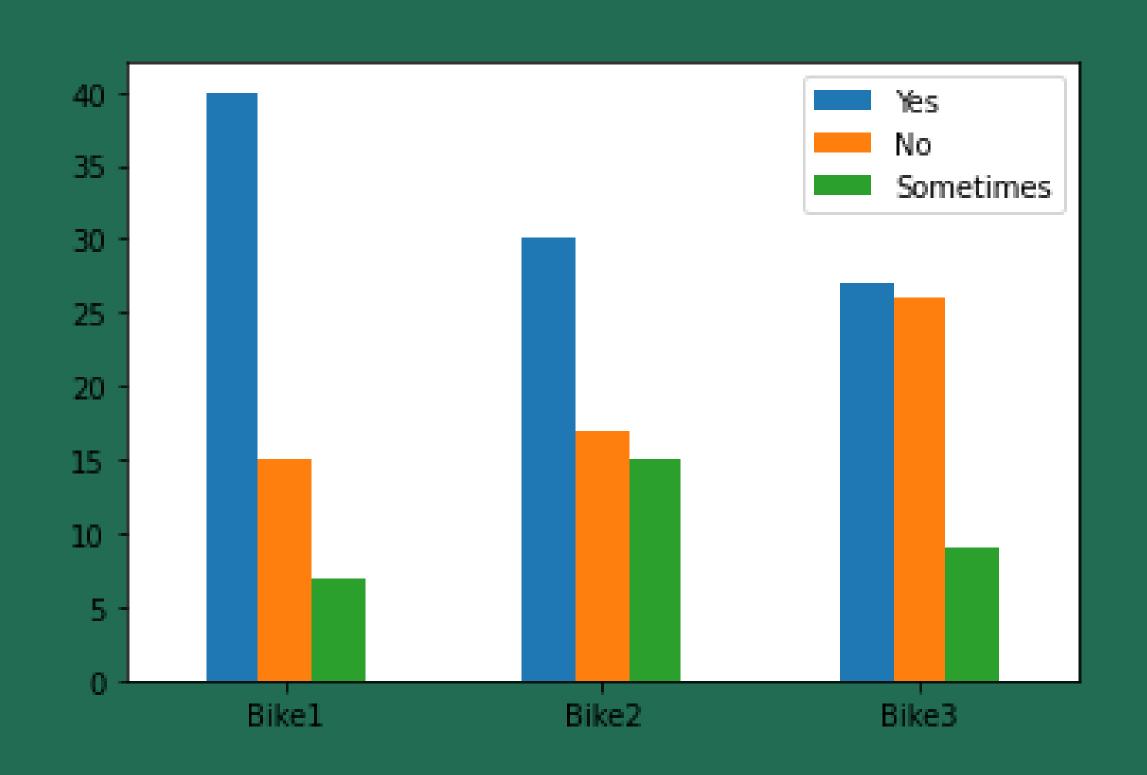
Percent of riding a bike/bus instead of driving (2023) Percent of riding a bike/bus instead of driving (last 5 years) Percent of riding a bike/bus instead of driving (last 10 years)



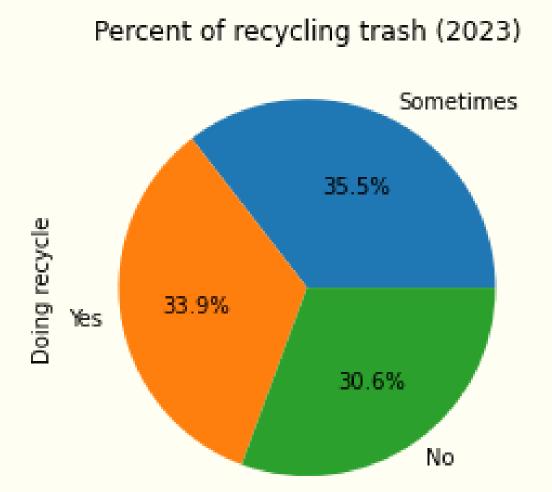


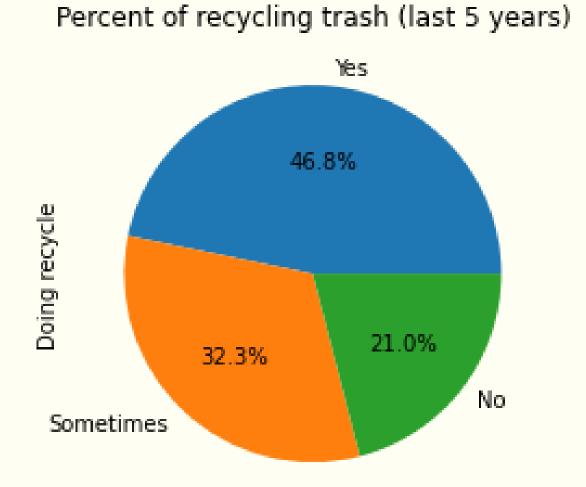


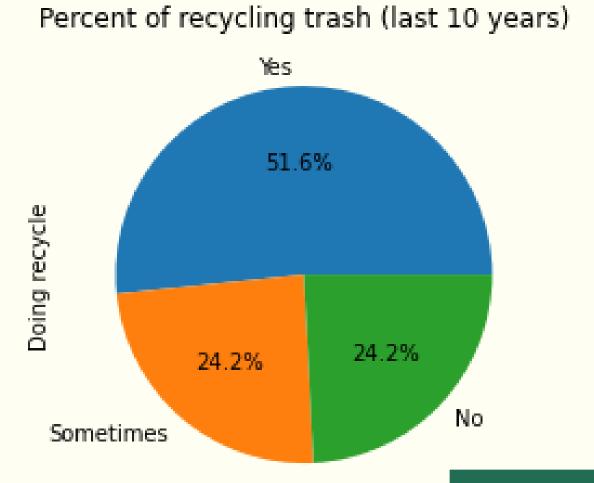
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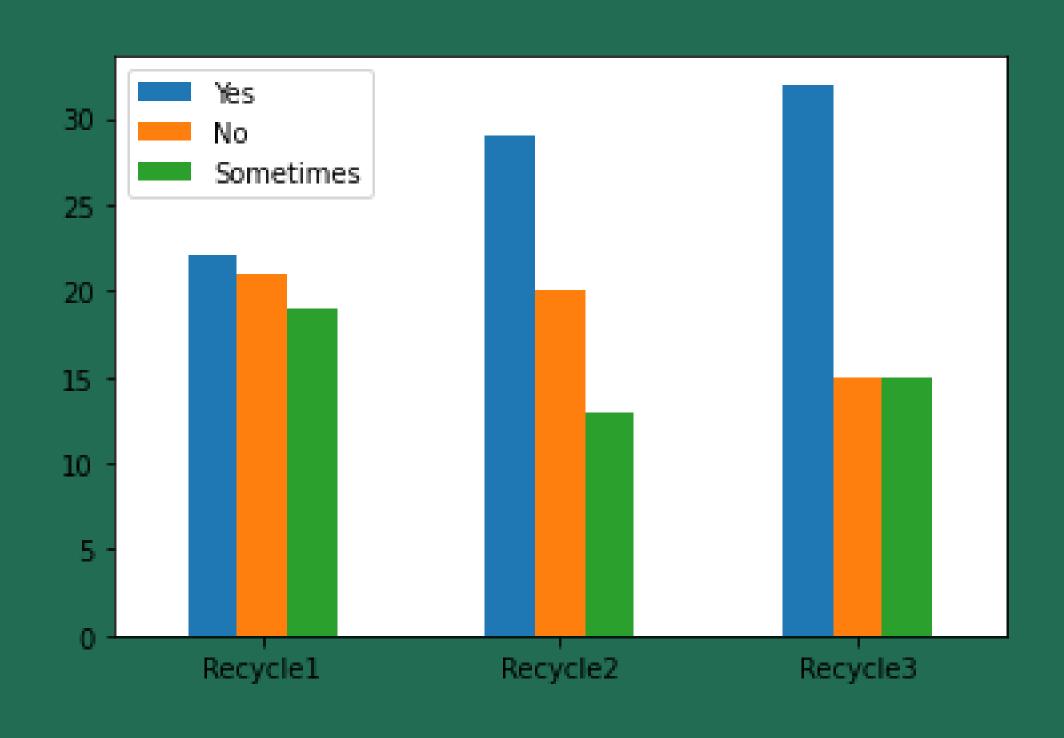
### I DO RECYCLE.







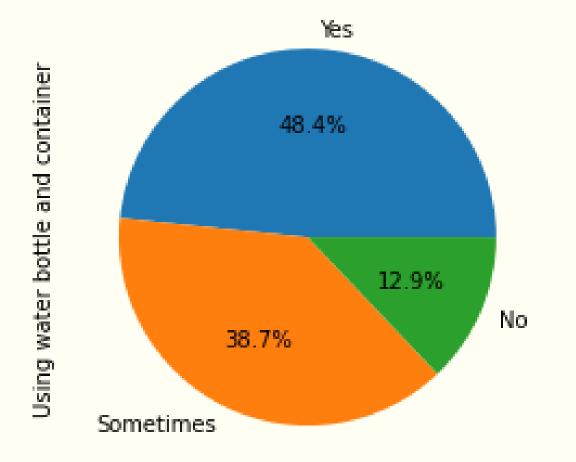
### I DO RECYCLE.

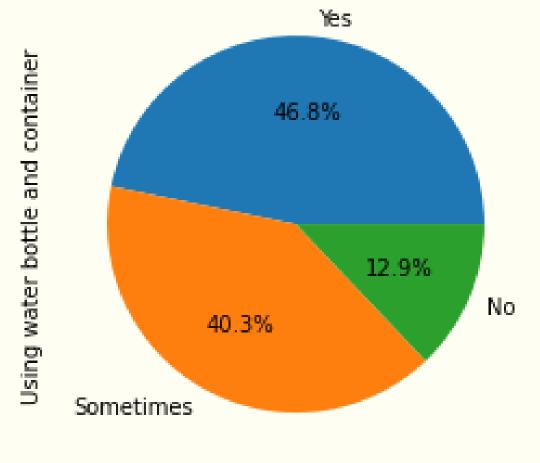


## I USE A MULTI-CONTAINER INSTEAD OF DISPOSABLE PRODUCT.

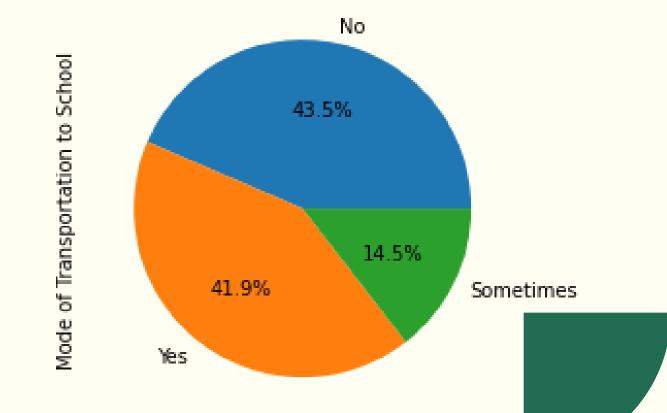
Percent of useing multi-use container (last 5 years)

Percent of useing multi-use container (2023)

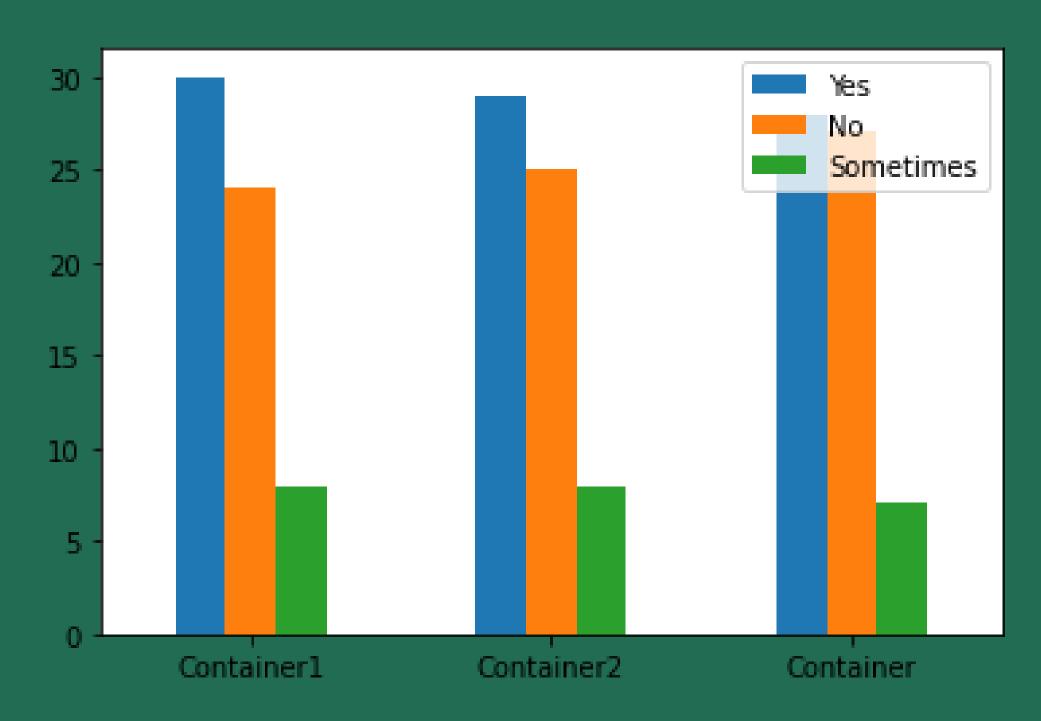




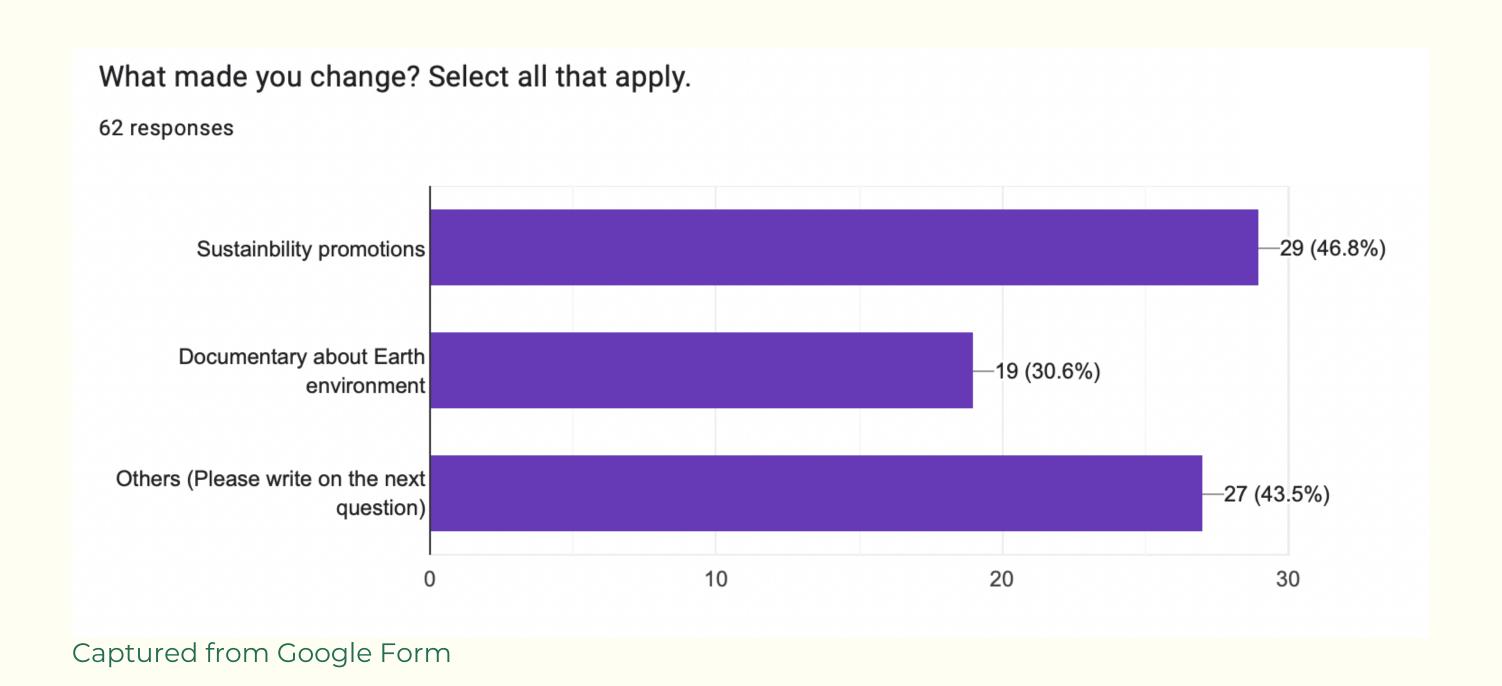
Percent of riding a bike/bus instead of driving (last 10 years)



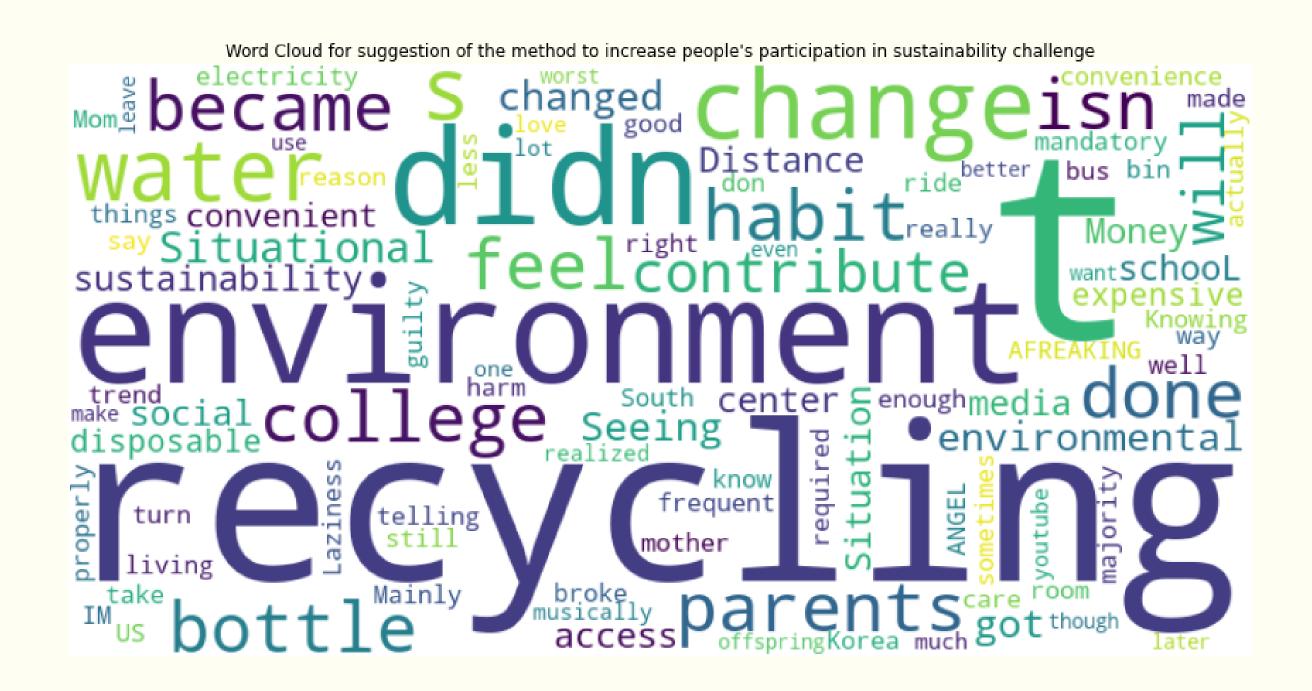
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#### WORD CLOUD



#### WORD CLOUD



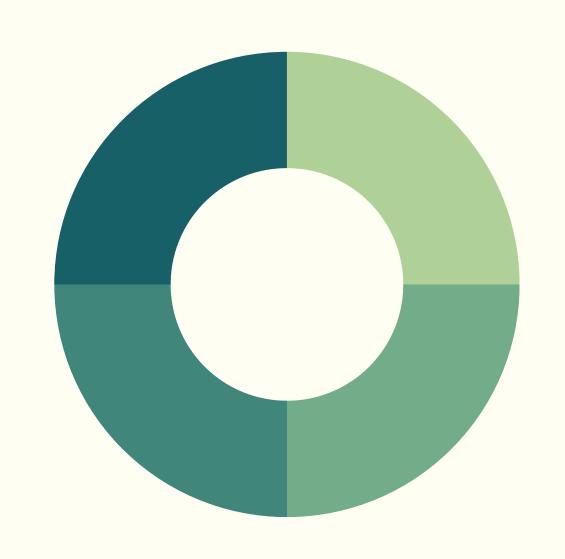
### WHAT'S NEXT?

#### **PROMOTION**

Sustainability promotion should be more often.

#### **DOCUMENTARY**

Create and share more documentary videos about the Earth, our environment, and energy.



#### **WATERBOTTLE**

Promote using waterbottles.

Not too heavy, something casual

#### **CONTRIBUTION**

Make people feel like they are contributing to a big deal.

# Thank Jour





