

A PROJECT
On
STUDENT DATABASE ANALYSIS USING PYTHON
BACHELOR OF TECHNOLOGY
By
DEPARTMENT OF DATA SCIENCE

YALABOLU ANUSHA 21KP1A44C7

Under the esteemed Guidance of

Er. S AKSHAY KUMAR

CS CODENZ



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GUDIVADA – 521 323, ANDHRA PRADESH., INDIA

2022-2023

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CERTIFICATE

This is to certify that dissertation entitled “**STUDENT DATABASE ANALYSIS USING PYTHON**” submitted by **YALABOLU ANUSHA (21KP1A44C7)** in the **BACHELOR OF TECHNOLOGY** from **CS CODENZ** is a record of Bonafede work carried out by them under my guidance and supervision during the year 2022-2023.

Signature of the Supervisor

Er. S AKSHAY KUMAR

CS CODENZ

Signature of the HOD

D. KOTESWAR RAO, MTech

Associative Professor & HOD
Data Science, NRIIT

DECLARATION

I **YALABOLU ANUSHA (21KP1A44C7)** declared that the dissertation report entitled "**STUDENT DATABASE ANALYSIS USING PYTHON**" is no more than 1,00,000 words in length including quotes and exclusive of tables, figures, bibliography, and references.

Roll No	Name	Signature
21KP1A44C7	YALABOLU ANUSHA	_____

Date:

Place:

ACKNOWLEDGEMENT

This report dissertation could not have been written without the support of our guide **Er. S AKSHAY KUMAR, CS CODENZ** who not only served as our superior but also encouraged and challenged us throughout our academic program our foremost thanks goes to his. Without his this dissertation would not have been possible. We appreciate him vast knowledge in many areas, and his insights, suggestions and guidance that helped to shape our research skills

It is needed with a great sense of pleasure and immense sense of gratitude that we acknowledge the help of these individuals. We owe many thanks to many people who helped and supported us during the writing of this report

We are thankful to our project coordinator **Er. S AKSHAY KUMAR, CS CODENZ**, for his continuous support

We express our sincere thanks to our respected for bet valuable suggestion and constant motivation that greatly helped us in successful completion of project We also take the privilege to express our heartfelt gratitude to **Er. S AKSHAY KUMAR, CS CODENZ**

We are thankful to all faculty members for extending their kind cooperation and assistance Finally, we are extremely thankful to our parents and friends for their constant helped moral support

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ABSTRACT

The Primary objective of this “**STUDENT DATABASE ANALYSIS USING PYTHON**” is to fulfil customer satisfaction and good trust along with challenges of the businesses. It includes data of historical warranty claims and real-time monitoring capabilities.

The project also focuses on achieving a high level of accuracy to find the frauds minimizing false positives. It will provide an interface for analysts to easily observe the frauds. It aims to provide a powerful tool to detect and combat warranty claim fraud. This is also help in reducing financial losses to the business providers.

REQUIREMENTS

HARDWARE REQUIREMENTS

- Personal Computer / Laptop with minimum RAM (8GB), ROM (256 GB) and Processor(i5)
- Good latency internet access

SOFTWARE REQUIREMENTS

- Basic Search Engine (Google)
- Google Colaboratory
- MICROSOFT WORD

FUNCTIONAL REQUIREMENTS

- Calculation
- Help in manipulating data and easy process.
- Graphical representation of Datasets

DESCRIPTION

Data Analytics is a process of scrutinizing the data to obtain accurate results. In data analytics the main purpose is extracting the original data from data. In this data analytics we need to perform the major that is data munging.

DATA MUNGING

It is a process of transferring unstructured data into structured format. The goal is to make the data

More usable and valuable for analytics or other purposes

STEPS OF DATA ANALYTICS

1. Defining the question
2. Collecting the data
3. Cleaning the data
4. Analysing the data
5. Sharing your results
6. Embracing your failures
7. Summary

CODE

1) DEFINING THE QUESTION

The first step in any data analysis process is to define your objective. In data analytics **jargon**, this is sometimes called the ‘problem statement’. The problem at hand is to develop an efficient and accurate data analytics warranty claim fraud detection system.

2) COLLECTING THE DATA

Pandas - Helps to create a dataset and it is also a library in python.

Pandas Package – It’s a group of Panal Data’s which are used to analyze the labelled data and relational data.

Matplotlib Library – it is a comprehensive library for creating static, animated and interactive visualizations in python

Numpy-Helps to create a series and it is also a library in python

IMPORT THE PACKAGES

```
import numpy as np
import pandas as pd
import matplotlib.pyplot as plt
df=pd.read_csv('dsdb.csv')#reading
data from csv file
print(df)
```

OUTPUT:

Timestamp	Email address \
0 6/13/2023 14:24:59	vennachandana1@gmail.com
1 6/13/2023 14:25:16	adilakshmi4765@gmail.com
2 6/13/2023 14:25:51	sravankumar7156@gmail.com
3 6/13/2023 14:26:02	sandeepyeruva1124@gmail.com
4 6/13/2023 14:26:14	sivajibejjanki@gmail.com
5 6/13/2023 14:26:23	ramyayalabolu123r@gmail.com
6 6/13/2023 14:27:05	charithareddy3914@gmail.com
7 6/13/2023 14:27:17	gayathripolepalli70@gmail.com
8 6/13/2023 14:27:41	syedtasleem07@gmail.com
9 6/13/2023 14:28:10	sowjanyathotall@gmail.com
10 6/13/2023 14:28:11	tammasahithil@gmail.com

ME \	STUDENT NAME	ROLL NUMBER	FATHER NA
0	Venna Chandana	21KP1A44C5	Venna Ramanaredd
Y	N.Venkatesh	21KP1A4468	N.Manikya R
ao			

2	Sravan Kumar	21KP1A4488	Rama Chandra R
ao			
3	Yeruva sandeep reddy	21KP1A44D1	Yeruva Ajay Kumar red
dy			
4	B.sivaji	22kp5a4402	B.lakshmai
ah			
5	Y.Ramya	21KP1A44C8	Y.Anjai
ah			
6	P.charitha reddy	21KP1A4475	P.Madhava Red
dy			
44	SHAIK SAIDA ANWAR BASHA	21KP1A44A2	SHAIK KUDHAN

	MOTHER NAME	COURSE	CGPA	AGE	\
0	Venna Lakshmidevi	DS	8	19	
1	N.Sri Lakshmi	CSE	83	19	
2	Venkateswaramma	MECH	7	20	
3	Yeruva Anjali Devi	CSE	9.5	20	
4	B.veramma	DS	72%	23	
5	Y Lakshmi Rajyam	DS	80	19	
6	P.Kavitha	DS	70	19	
7	POLEPALLI.SRIDEVI	DS	10	19	
8	Syed Naseema	MECH	8	19	
9	T.ARUNA KUMARI	DS	8	19	
10	Tamma Padmavathi	DS	7.7	19	
11	PODILU ADILAKSHMI	DS	7.5	19	
12	SHAIK KHADRUN	DS	9	19	
13	Lakshmi.v	DS	98%	20	
14	Patcha sukanya	CSE	99%	20	
15	Pachipulusu Bhavani	MECH	8.5	19	
16	Jyothi	DS	7	19	

	BRANCH	CURRENT SEM	ISTER	\
0	Data science		2-2	
1	CSE-DS		II-II	
2	mech		4	
3	CSE		2-3	
4	Computer science		2-2	
5	CSD		2-2	
6	CSD		2.2	
7	Data Science		2-2	
8	DS		2-2	
9	DATA SCIENCE		2-2	
10	CSE (Data science)		2-2	
11	DATA SCIENCE		2-2	
12	ds		2-2	
13	Data Science		2-2	
14	Data science		2-2	

AADHAAR NO

0	636336922883
1	602515258256
2	930319053088

```
3      576154990146
4      895444662410
5      724574588425
6      810177524502
7      721819168061
8      617020354793
9      338666948901
10     685349832128
11     458689741091
```

Details of the dataset

```
df.info()
```

OUTPUT:

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 52 entries, 0 to 51
Data columns (total 13 columns):
 #   Column           Non-Null Count  Dtype  
--- 
 0   Timestamp        52 non-null    object 
 1   Email address   52 non-null    object 
 2   STUDENT NAME    52 non-null    object 
 3   ROLL NUMBER     52 non-null    object 
 4   FATHER NAME     52 non-null    object 
 5   MOTHER NAME     52 non-null    object 
 6   COURSE          52 non-null    object 
 7   CGPA             52 non-null    object 
 8   AGE              52 non-null    object 
 9   EMAIL            52 non-null    object 
 10  BRANCH           48 non-null    object 
 11  CURRENT SEMISTER 52 non-null    object 
 12  AADHAAR NO     52 non-null    object 
dtypes: object(13)
memory usage: 5.4+ KB
```

Delete the columns

```
df.drop(['EMAIL','Timestamp'], axis=1,inplace=True)#email
and timestamp are already deleted we are trying
print(df)
```

OUTPUT:

	Email address	STUDENT NAME \
0	vennachandana1@gmail.com	Venna Chandana
1	adilakshmi4765@gmail.com	N.Venkatesh
2	sravankumar7156@gmail.com	Sravan Kumar

3	sandeepyeduval124@gmail.com	Yeruva sandeep reddy
4	sivajibejjanki@gmail.com	B.sivaji
5	ramyayalabolu123r@gmail.com	Y.Ramya
6	charithareddy3914@gmail.com	P.charitha reddy
7	gayathripolepalli70@gmail.com	POLEPALLI. GAYATHRI
8	syedtasleem07@gmail.com	Syed Tasleem Afroze
9	sowjanyathota11@gmail.com	T.SOWJANYA
10	tammashithi1@gmail.com	Tamma Sahithi
11	podilisarayu6@gmail.com	PODILI LAKSHMISARAYU
12	shaikkarishma811@gmail.com	shaik karishma
13	kumarvalaparla890@gmail.com	Venkata Aravind Kumar.V
14	patchachinnu3@gmail.com	Patcha Jaswanth
15	manu952041@gmail.com	Pachipulusu Manohar
ROLL NUMBER		MOTHER NAME \
0	21KP1A44C5	Venna Lakshmideni
1	21KP1A4468	N.Sri Lakshmi
2	21KP1A4488	Venkateswaramma
3	21KP1A44D1	Yeruva Anjali Devi
4	22kp5a4402	B.veramma
5	21KP1A44C8	Y Lakshmi Rajyam
6	21KP1A4475	P.Kavitha
7	21KP1A4481	POLEPALLI.SRIDEVI
8	21KP1A44A9	Syed Naseema
9	21KP1A44B6	T.ARUNA KUMARI
10	21KP1A44B0	Tamma Padmavathi
11	21KP1A4480	PODILI ADILAKSHMI
12	21KP1A4496	SHAIK KHADRUNK
13	21KP1A44C0	Lakshmi.v
14	21KP1A4477	Patcha sukanya
15	21KP1A4472	Pachipulusu Bhavani
COURSE CGPA AGE		
0	DS 8	19
1	CSE 83	19
2	MECH 7	20
3	CSE 9.5	20
4	DS 72%	23
5	DS 80	19
6	DS 70	19
7	DS 10	19
8	MECH 8	19
9	DS 8	19
10	DS 7.7	19
11	DS 7.5	19
12	DS 9	19
13	DS 98%	20
14	CSE 99%	20
15	MECH 8.5	19
CURRENT SEMISTER		AADHAAR NO
0	2-2	636336922883
1	II-II	602515258256
2	4	930319053088
3	2-3	576154990146
4	2-2	895444662410

```

5          2-2    724574588425
6          2 .2   810177524502
7          2-2    721819168061
8          2-2    617020354793
9          2-2    338666948901
10         2-2   685349832128

```

It checks if the null values present or not

```
df.isnull().sum()
```

OUTPUT:

```

Email address      0
STUDENT NAME      0
ROLL NUMBER       0
FATHER NAME       0
MOTHER NAME       0
COURSE            0
CGPA              0
AGE               0
BRANCH            4
CURRENT SEMISTER 0
AADHAAR NO        0
dtype: int64

```

```
df.isnull()
print(df)
```

OUTPUT:

	Email address	STUDENT NAME \
0	vennachandana1@gmail.com	Venna Chandana
1	adilakshmi4765@gmail.com	N.Venkatesh
2	sravankumar7156@gmail.com	Sravan Kumar
3	sandeepyeruva1124@gmail.com	Yeruva sandeep reddy
4	sivajibejjanki@gmail.com	B.sivaji
5	ramyayalabolu123r@gmail.com	Y.Ramya
6	charithareddy3914@gmail.com	P.charitha reddy
7	gayathripolepalli70@gmail.com	POLEPALLI. GAYATHRI
8	syedtasleem07@gmail.com	Syed Tasleem Afrose
9	sowjanyathota11@gmail.com	T.SOWJANYA
10	tammasaithili@gmail.com	Tamma Sahithi
11	podilisarayu6@gmail.com	PODILI LAKSHMISARAYU
12	shaikkarishma811@gmail.com	shaik karishma
13	kumarvalaparla890@gmail.com	Venkata Aravind Kumar.V
14	patchachinnu3@gmail.com	Patcha Jaswanth
15	manu952041@gmail.com	Pachipulusu Manohar
Naidu		
ROLL NUMBER	FATHER NAME	MOTHER NAME \

0	21KP1A44C5	Venna Ramanareddy	Venna Lakshmidevi	
1	21KP1A4468	N.Manikya Rao	N.Sri Lakshmi	
2	21KP1A4488	Rama Chandra Rao	Venkateswaramma	
3	21KP1A44D1	Yeruva Ajay Kumar reddy	Yeruva Anjali Devi	
4	22kp5a4402	B.lakshmaiah	B.veramma	
5	21KP1A44C8	Y.Anjaiah	Y Lakshmi Rajyam	
6	21KP1A4475	P.Madhava Reddy	P.Kavitha	
7	21KP1A4481	POLEPALLI. GURUBRAHMA CHARI	POLEPALLI.SRIDEVI	
8	21KP1A44A9	Syed Rahiman	Syed Naseema	
9	21KP1A44B6	T.SAMBA SIVA RAO	T.ARUNA KUMARI	
10	21KP1A44B0	Tamma krishna reddy	Tamma Padmavathi	
	COURSE CGPA	AGE	BRANCH \	
0	DS	8	19	Data science
1	CSE	83	19	CSE-DS
2	MECH	7	20	mech
3	CSE	9.5	20	CSE
4	DS	72%	23	Computer science
5	DS	80	19	CSD
6	DS	70	19	CSD
7	DS	10	19	Data Science
8	MECH	8	19	DS
9	DS	8	19	DATA SCIENCE
10	DS	7.7	19	CSE (Data science)
	CURRENT SEMISTER	AADHAAR NO		
0		2-2	636336922883	
1		III-II	602515258256	
2		4	930319053088	
3		2-3	576154990146	
4		2-2	895444662410	
5		2-2	724574588425	
6		2.2	810177524502	
7		2-2	721819168061	
8		2-2	617020354793	
9		2-2	338666948901	
10		2-2	685349832128	
11		2-2	458689741091	
12		2-2	663048521599	
13		2-2	510305345824	
14		2-2	744020413963	
15		2-2	559366114423	
16		2-2	424973081348	
17		2-2	529261464345	
18		2-2	568753875709	

Filling the null values with forward values

```
df.isnull().sum()
df.fillna(axis=1,inplace=True)
print(df)
```

OUTPUT:

Email address

STUDENT NAME \

0		vennachandana1@gmail.com	Venna Chandana	
1		adilakshmi4765@gmail.com	N.Venkatesh	
2		s ravankumar7156@gmail.com	Sravan Kumar	
3		sandeepy eruva1124@gmail.com	Yeruva sandeep reddy	
4		sivajibejjanki@gmail.com	B.sivaji	
5		ramyayalabolu123r@gmail.com	Y.Ramya	
6		charithareddy3914@gmail.com	P.charitha reddy	
7		gayathripolepalli70@gmail.com	POLEPALLI. GAYATHRI	
8		syedtasleem07@gmail.com	Syed Tasleem Afroze	
9		sowjanyathota11@gmail.com	T.SOWJANYA	
10		tammashithi1@gmail.com	Tamma Sahithi	
11		podilisarayu6@gmail.com	PODILI LAKSHMISARAYU	
12		shaikkarishma811@gmail.com	shaik karishma	
13		kumarvalaparla890@gmail.com	Venkata Aravind Kumar.V	
14		patchachinnu3@gmail.com	Patcha Jaswanth	
15		manu952041@gmail.com	Pachipulusu Manohar	
	ROLL NUMBER		MOTHER NAME \	
0	21KP1A44C5	Venna Ramanareddy	Venna Lakshmid evi	
1	21KP1A4468	N.Manikya Rao	N.Sri Lakshmi	
2	21KP1A4488	Rama Chandra Rao	Venkateswaramma	
3	21KP1A44D1	Yeruva Ajay Kumar reddy	Yeruva Anjali Devi	
4	22kp5a4402	B.lakshmaiah	B.veramma	
5	21KP1A44C8	Y.Anjaiah	Y Lakshmi Rajyam	
6	21KP1A4475	P.Madhava Reddy	P.Kavitha	
7	21KP1A4481	POLEPALLI. GURUBRAHMA CHARI	POLEPALLI.SRIDEVI	
8	21KP1A44A9	Syed Rahiman	Syed Naseema	
9	21KP1A44B6	T.SAMBA SIVA RAO	T.ARUNA KUMARI	
10	21KP1A44B0	Tamma krishna reddy	Tamma Padmavathi	
11	21KP1A4480	PODILI RAMESH	PODILI ADILAKSHMI	
12	21KP1A4496	SHAIK BAJI	SHAIK KHADRUN	
13	21KP1A44C0	Veeraswamy.v	Lakshmi.v	
14	21KP1A4477	Patcha appara o	Patcha sukanya	
15	21KP1A4472	Pachipulusu Prasad	Pachipulusu Bhavani	
	Chinni Bhargavi			
	COURSE	CGPA	AGE	BRANCH \
0	DS	8	19	Data science
1	CSE	83	19	CSE-DS
2	MECH	7	20	mech
3	CSE	9.5	20	CSE
4	DS	72%	23	Computer science
5	DS	80	19	CSD
6	DS	70	19	CSD
7	DS	10	19	Data Science
8	MECH	8	19	DS
9	DS	8	19	DATA SCIENCE
10	DS	7.7	19	CSE (Data science)
11	DS	7.5	19	DATA SCIENCE
12	DS	9	19	ds
13	DS	98%	20	Data Science
14	CSE	99%	20	Data science
15	MECH	8.5	19	19

	CURRENT SEMISTER	AADHAAR NO
0	2-2	636336922883
1	II-II	602515258256
2	4	930319053088
3	2-3	576154990146
4	2-2	895444662410
5	2-2	724574588425
6	2.2	810177524502
7	2-2	721819168061
8	2-2	617020354793
9	2-2	338666948901
10	2-2	685349832128
11	2-2	458689741091
12	2-2	663048521599
13	2-2	510305345824
14	2-2	744020413963

DATAFRAME

A data frame is a 2D data structure in which we store data in the form of tables. [rows x columns]
We can create a table via Data Frame i.e., known as DATASET.

Here we use summary statistics on dataset

```
df.describe()
```

OUTPUT:

	Email address	STUDENT NAME	ROLL NUMBER	FATHER NAME	MOTHER NAME	COURSE	CGPA	AGE	BRANCH	CURRENT SEMISTER	AADHAAR NO
count	52	52	52	52	52	52	52	52	52	52	52
unique	52	52	52	52	52	4	27	6	24	9	52
top	vennachandana1@gmail.com	Venna Chandana	21KP1A44C5	Venna Ramanareddy	Venna Lakshmidevi	DS	80	19	DS	2-2	636336922883
freq	1	1	1	1	1	40	7	30	7	37	1

It consider the shape of the dataset

```
df.shape()
```

OUTPUT:

(52, 11)

Replace the values

```
df.replace(['*****'], '654273218990', inplace=True)
print(df)
```

OUTPUT:

	Email address	STUDENT NAME \	MOTHER NAME \	
0	vennachandana1@gmail.com	Venna Chandana	Venna Lakshmideni	
1	adilakshmi4765@gmail.com	N.Venkatesh	N.Sri Lakshmi	
2	sravankumar7156@gmail.com	Sravan Kumar	Venkateswaramma	
3	sandeepyeruva1124@gmail.com	Yeruva sandeep reddy	Yeruva Anjali Devi	
4	sivajibejjanki@gmail.com	B.sivaji	B.veramma	
5	ramyayalabolu123r@gmail.com	Y.Ramya	Y Lakshmi Rajyam	
6	charithareddy3914@gmail.com	P.charitha reddy	P.Kavitha	
7	gayathripolepalli70@gmail.com	POLEPALLI. GAYATHRI	POLEPALLI.SRIDEVI	
8	syedtasleem07@gmail.com	Syed Tasleem Afroze	Syed Naseema	
9	sowjanyathota11@gmail.com	T.SOWJANYA	T.ARUNA KUMARI	
10	tammasahithi1@gmail.com	Tamma Sahithi	Tamma Padmavathi	
11	podilisarayu6@gmail.com	PODILI LAKSHMISARAYU	PODILI ADILAKSHMI	
12	shaikkarishma811@gmail.com	shaik karishma	SHAIK KHADRUN	
13	kumarvalaparla890@gmail.com	Venkata Aravind Kumar.V	Lakshmi.v	
14	patchachinnu3@gmail.com	Patcha Jaswanth	Patcha sukanya	
15	manu952041@gmail.com	Pachipulusu Manohar	BRANCH \	
	ROLL NUMBER	FATHER NAME		
0	21KP1A44C5	Venna Ramanareddy	Data science	
1	21KP1A4468	N.Manikya Rao	CSE-DS	
2	21KP1A4488	Rama Chandra Rao	mech	
3	21KP1A44D1	Yeruva Ajay Kumar reddy	CSE	
4	22kp5a4402	B.lakshmaiah	Computer science	
5	21KP1A44C8	Y.Anjaiah	CSD	
6	21KP1A4475	P.Madhava Reddy	CSD	
7	21KP1A4481	POLEPALLI. GURUBRAHMA CHARI	Data Science	
8	21KP1A44A9	Syed Rahiman	DS	
9	21KP1A44B6	T.SAMBA SIVA RAO		
10	21KP1A44B0	Tamma krishna reddy		
11	21KP1A4480	PODILI RAMESH		
12	21KP1A4496	SHAIK BAJI		
13	21KP1A44C0	Veeraswamy.v		
14	21KP1A4477	Patcha apparao		
	COURSE	CGPA	AGE	
0	DS	8	19	
1	CSE	83	19	
2	MECH	7	20	
3	CSE	9.5	20	
4	DS	72%	23	
5	DS	80	19	
6	DS	70	19	
7	DS	10	19	
8	MECH	8	19	

```

9      DS     8   19          DATA SCIENCE
10     DS    7.7   19          CSE (Data science)
11     DS    7.5   19          DATA SCIENCE
12     DS     9   19          ds
13     DS   98%   20          Data Science
14     CSE   99%   20          Data science

CURRENT SEMISTER      AADHAAR NO
0                  2-2      636336922883
1                 II-II    602515258256
2                   4      930319053088
3                  2-3      576154990146
4                  2-2      895444662410
5                  2-2      724574588425
6                  2.2     810177524502
7                  2-2     721819168061
8                  2-2     617020354793
9                  2-2     338666948901
10                 2-2    685349832128

```

`df.columns`

OUTPUT:

```
Index(['Email address', 'STUDENT NAME', 'ROLL NUMBER', 'FATHER NAME', 'MOTHER NAME', 'COURSE', 'CGPA', 'AGE', 'BRANCH', 'CURRENT SEMISTER', 'AADHAAR NO'], dtype='object')
```

Give the renames for the existed columns

```
df.rename(columns={'Emailaddress':'Gmail','CURRENTSEMISTER':'SEMISTER','AADHAAR NO':'UIDAINO'},inplace=True)
print(df.columns)
```

OUTPUT:

```
Index(['Gmail', 'STUDENT NAME', 'ROLL NUMBER', 'FATHER NAME', 'MOTHER NAME', 'COURSE', 'CGPA', 'AGE', 'BRANCH', 'SEMISTER', 'UIDAI NO'], dtype='object')
```

```
df.replace({'70':70},inplace=True)
print(df)
```

OUTPUT:

Gmail

0	vennachandana1@gmail.com
1	adilakshmi4765@gmail.com
2	sravankumar7156@gmail.com
3	sandeepyeruval124@gmail.com
4	sivajibejjanki@gmail.com
5	ramyayalabolu123r@gmail.com
6	charithareddy3914@gmail.com
7	gayathripolepalli70@gmail.com
8	syedtasleem07@gmail.com
9	sowjanyathota11@gmail.com
10	tammasahithi1@gmail.com

STUDENT NAME \

Venna Chandana
N.Venkatesh
Sravan Kumar
Yeruva sandeep reddy
B.sivaji
Y.Ramya
P.charitha reddy
POLEPALLI. GAYATHRI
Syed Tasleem Afroze
T.SOWJANYA
Tamma Sahithi

ROLL NUMBER	FATHER NAME
21KP1A44C5	Venna Ramanareddy
21KP1A4468	N.Manikya Rao
21KP1A4488	Rama Chandra Rao
21KP1A44D1	Yeruva Ajay Kumar reddy
22kp5a4402	B.lakshmaiah
21KP1A44C8	Y.Anjaiah
21KP1A4475	P.Madhava Reddy
21KP1A4481	POLEPALLI. GURUBRAHMA CHARI
21KP1A44A9	Syed Rahiman
21KP1A44B6	T.SAMBA SIVA RAO
21KP1A44B0	Tamma krishna reddy

MOTHER NAME
Venna Lakshmidevi
N.Sri Lakshmi
Venkateswaramma
Yeruva Anjali Devi
B.veramma
Y Lakshmi Rajyam
P.Kavitha
POLEPALLI.SRIDEVI
Syed Naseema
T.ARUNA KUMARI
Tamma Padmavathi

COURSE	CGPA	AGE
DS	8	19
CSE	83	19
MECH	7	20
CSE	9.5	20
DS	72%	23
DS	80	19
DS	70	19
DS	10	19
MECH	8	19
DS	8	19
DS	7.7	19

BRANCH \
Data science
CSE-DS
mech
CSE
Computer science
CSD
CSD
Data Science
DS
DATA SCIENCE
CSE (Data science)

CSD	SEMISTER	UIDAI NO
0	2-2	636336922883
1	II-II	602515258256
2	4	930319053088
3	2-3	576154990146
4	2-2	895444662410
5	2-2	724574588425
6	2.2	810177524502
7	2-2	721819168061
8	2-2	617020354793
9	2-2	338666948901
10	2-2	685349832128

Conversion of values into datatypes

```
df.CGPA=df.CGPA.str.replace("%",'').astype(float)  
print(df)
```

OUTPUT:

```
Gmail  
0 vennachandana1@gmail.com  
1 adilakshmi4765@gmail.com  
2 sravankumar7156@gmail.com  
3 sandeepyruval124@gmail.com  
4 sivajibejjanki@gmail.com  
5 ramyayalabolu123r@gmail.com  
6 charithareddy3914@gmail.com  
7 gayathripolepalli70@gmail.com  
8 syedtasleem07@gmail.com  
9 sowjanyathotall@gmail.com  
10 tammasahithi1@gmail.com  
  
COURSE CGPA AGE  
0 DS 8.0 19  
1 CSE 83.0 19  
2 MECH 7.0 20  
3 CSE 9.5 20  
4 DS 72.0 23  
5 DS 80.0 19  
6 DS 70.0 19  
7 DS 10.0 19  
8 MECH 8.0 19  
9 DS 8.0 19  
10 DS 7.7 19  
  
SEMISTER UIDAI NO  
0 2-2 636336922883  
1 II-II 602515258256  
2 4 930319053088  
3 2-3 576154990146  
4 2-2 895444662410  
5 2-2 724574588425  
6 2.2 810177524502  
7 2-2 721819168061  
8 2-2 617020354793  
9 2-2 338666948901  
10 2-2 685349832128
```

```
STUDENT NAME \  
Venna Chandana  
N.Venkatesh  
Sravan Kumar  
Yeruva sandeep reddy  
B.sivaji  
Y.Ramya  
P.charitha reddy  
POLEPALLI. GAYATHRI  
Syed Tasleem Afrose  
T.SOWJANYA  
Tamma Sahithi  
BRANCH \  
Data science  
CSE-DS  
mech  
CSE  
Computer science  
CSD  
CSD  
Data Science  
DS  
DATA SCIENCE  
CSE (Data science)
```

Consider the ranking

```
df[df['CGPA']>7.0]
```

OUTPUT :

	Gmail	STUDENT NAME	ROLL NUMBER	FATHER NAME	MOTHER NAME	COURSE	CGPA	AGE	BRANCH	SEMISTER	UIDAI NO
0	vennachandana1@gmail.com	Venna Chandana	21KP1A44C5	Venna RamanaReddy	Venna LakshmiDevi	DS	8.0	19	Data science	2-2	636336922883
1	adilakshmi4765@gmail.com	N.Venkatesh	21KP1A4468	N.Maniky Rao	N.Sri Lakshmi	CSE	83.0	19	CSE-DS	II-II	602515258256
3	sandeepyervu124@gmail.com	Yeruva sandeep reddy	21KP1A44D1	Yeruva Ajay Kumar reddy	Yeruva Anjali Devi	CSE	9.5	20	CSE	2-3	576154990146
4	sivaji.bejjanki@gmail.com	B.sivaji	22kp5a4402	B.lakshmalah	B.veramma	DS	72.0	23	Computer science	2-2	895444662410
5	ramyayalabolu123@gmail.com	Y.Ramya	21KP1A44C8	Y.Anjalaih	Y Lakshmi Rajyam	DS	80.0	19	CSD	2-2	724574588425
6	charithareddy914@gmail.com	P.charitha reddy	21KP1A4475	P.Madhava Reddy	P.Kavitha	DS	70.0	19	CSD	2.2	810177524502
7	gayathripolepalli70@gmail.com	POLEPALLI. GAYATHRI	21KP1A4481	POLEPALLI. GURUBRAMHA CHARI	POLEPALLI.SRIDEVI	DS	10.0	19	Data Science	2-2	721819168061
8	syedtasleem07@gmail.com	Syed Tasleem Afrose	21KP1A44A9	Syed Rahiman	Syed Naseema	MECH	8.0	19	DS	2-2	617020354793
9	sowjanyathota11@gmail.com	T.SOWJANYA	21KP1A44B6	T.SAMBA SIVA RAO	T.ARUNA KUMARI	DS	8.0	19	DATA SCIENCE	2-2	338666948901
10	tammasaithili1@gmail.com	Tamma Saithi	21KP1A44B0	Tamma krishna reddy	Tamma Padmavathi	DS	7.7	19	CSE (Data science)	2-2	685349832128
11	podilisarayu5@gmail.com	PODILI LAKSHMISARAYU	21KP1A44B0	PODILI RAMESH	PODILI ADILAKSHMI	DS	7.5	19	DATA SCIENCE	2-2	458689741091
12	shaikkarishma811@gmail.com	shaik karishma	21KP1A4496	SHAIK BAJI	SHAIK KHADRUN	DS	9.0	19	ds	2-2	663048521599
13	kumarvalaparla890@gmail.com	Venkata Aravind Kumar.V	21KP1A44C0	Veeraswamy.v	Lakshmi.v	DS	98.0	20	Data Science	2-2	510305345824
14	patchachinnu3@gmail.com	Patcha Jswanth	21KP1A4477	Patcha apparao	Patcha sukanya	CSE	99.0	20	Data science	2-2	744020413963
15	manu952041@gmail.com	Pachipulusu Manohar	21KP1A4472	Pachipulusu Prasad	Pachipulusu Bhavani	MECH	8.5	19	19	2-2	559366114423
17	shaiksakina05@gmail.com	Shaik sameer	21KP1A44A3	Shaik Rahim babu	Shaik Raziya	DS	80.0	20	DS	2-2	529261464345
18	us465249@gmail.com	S sk usman	21KP1A4492	S sk mastan vali	Mahabobba	DS	50.0	19	DS	2-2	568753875709
19	vallu.srinu756939@gmail.com	Vallu Srinu Siva Subrahmanyam	21KP1A44C1	Vallu Sriniwas Rao	Vallu Surya kumari	DS	73.0	20	Computer Science Engineering& Data Science	4	654273218990
20	undelachandraobulareddy@gmail.com	Undela Chandra Obula Reddy	21KP1A44B9	Undela Chinna Obula Reddy	Undela GuruLakshmi	DS	9.2	20	Computer Science	2-2	693621780842
21	farukh.786syed@gmail.com	SYED.FARUKH	21KP1A44A7	SYED.BAJI	SYED.SARTHAJ BEGUM	DS	70.0	19	DS	2-2	764320730678
22	anushayalabolu12@gmail.com	Anusha yalabolu	21KP1A44C7	Chinna anjayya	Lakshmi narayana	DS	75.0	19	CSD	2-2	830785066037
23	madhulathasure9@gmail.com	SURE. MADHULATHA	21KP1A44A4	SURE.VISWANADHAM	SURE.SAI LAKSHMI	DS	10.0	20	Data science	2-2	776486062608
24	thammisettyrikanthraj@gmail.com	T.Srikanth	21KP1A44B5	T.vasu	T.jaya	DS	75.0	19	Data Science	2-2	673112205183
25	shaikmobin2002@gmail.com	Shaikmobin	21KP1A4497	shaik karimullah	Shaik rihana	DS	8.8	21	Ds	2.2	904355656468
26	abdulkhadar842@gmail.com	Shaik.Abdul Khadar	21KP1A4493	Shaik.Kareem	Shaik.Farjana	ECE	8.0	20	20	2-2	334708289154
27	ravuakshaya@gmail.com	Ravu.akshaya	21KP1A44B5	Ravu.srinivasrao	Ravu.aruna kumari	DS	80.0	19	Ds	2.2	544305783128
28	hemasanjushasanikommu28@gmail.com	hema sanjusha	21KP1A4491	musalarreddy	sivarparvathi	CSE	73.0	18h	cse	2-2	422314863763
29	ynagasasikumar@gmail.com	Y Naga Sasi Kumar	21KP1A44D0	Y Rama mohanrao	Y Lalitha	DS	9.2	20	20	2-2	448172496292
30	rahamtunnisaishaik09@gmail.com	Shaik Rahamtunnisa	21KP1A44A0	Shaik.mahaboobjani	Shaik.munni	DS	8.0	18	Data science	2-2	406976169351
31	harikabangaram313@gmail.com	Harika	22KP5A4401	A.Subramanyam	A.Dhana Bhagyam	DS	75.0	19	Data science	2-2	574930568520
32	indupriya72216@gmail.com	Indu Priya Patcha	21KP1A4476	Appa rao Patcha	Renuka Patcha	DS	75.0	18	Data Science	2-2	573041880949
33	bhavyasrisaja2003@gmail.com	Bhavya sri	21KP1A4490	Mohan krishna	Usha rani	DS	70.0	19	Ds	2-2	274736890047
34	sudhamshavejendla@gmail.com	Vejendla Devi Sri Sudhansha	21KP1A44C4	Vejendla Srinivasa Rao	Vejendla Laxmi Prasanna	CSE	70.0	19	Cse- Data Science	2,2	587480445790
35	bhanuthanirru@gmail.com	Thanirru Bhanu venkata prasad	21KP1A44B2	T sathyaranayana	T rama devi	DS	9.6	19	19	2-2	35722802835
36	nikitharayapatil@gmail.com	Nikhitha Rayapatil	21KP1A44B7	Rayapatil hanumathrao	Rayapatil malleswari	DS	80.0	19	Ds	2-2	963360828294
37	indhupotila123@gmail.com	indhu priya	21KP1A44B3	Lakshmanarayana	Sujatha	CSE	72.0	19	cse	2-2	524345891620
38	abdulabdul22070@gmail.com	Syed.Abdul Reheman	21KP1A44A6	Syed. Meera Sharif	Bandi.Krishna veni	DS	90.0	20	DS	2-2	347853509974
40	rabbanishaik7356@gmail.com	SHAIK RABBANI	21KP1A4499	SHAIK MOHAMMAD HANIF	SHAIK MALIN	DS	9.5	21	CSD	2-2	205933956204
41	reshmayalamanchi@gmail.com	Reshma yalamanchi	21KP1A44C9	Yalamanchi subba Rao	Yalamanchi sunitha	DS	75.0	19	DS	4	742366316353
42	thiriveedhingajyothi@gmail.com	T. Nagajyothi	21KP1A44B7	T. Venkayya	T. Ramanamma	DS	75.0	19	DS	4	330477145525
43	paladugudurga1@gmail.com	P. Durga Sri	21KP1A4473	P. Amareswara rao	P. Seshu Kumari	DS	80.0	20	CSD(Data Science)	2-2	692162661608
44	saidashaik371@gmail.com	SHAIK SAIDA ANWAR BASHA	21KP1A44A2	SHAIK KUDHAN VALI	SHAIK SAIDA HUSSANBI	DS	80.0	20	DATASCIENCE	2-2	466722650274
46	nrajasambasivrao@gmail.com	Narra Raja Samba Siva Rao	21KP1A4471	Narra SrinivasRao	Narra Ramadevi	DS	7.5	19	CSD (Data science)	4	835457902826
47	saisairam068@gmail.com	Sairam	21kp1a44b4	Venkata subbiah	Ravanamma	CSE	10.0	19	Da	2-2	746109575146
48	sriharshanallabothu@gmail.com	Nallabothu. Sri Harsha	21KP1A4469	Nallabothu. Anjaneyulu	Nallabothu. Anitha	DS	90.0	21	CSD	2-2	208611060176
49	bhuvanstarpuli@gmail.com	Puli bhuvaneswar	21KP1A4484	Puli mallikarjuna	Puli ramadevi	DS	8.3	21	Data science	2.2	950519207474
50	arundathi0508@gmail.com	PANDA UMA ARUNDATHI	21KP1A4474	PANDA NARAYANA RAO	PANDA PRASANNA LAKSHMI	DS	87.0	19	CSD	2-2	652650486629
51	chinnivignesh144@gmail.com	chinni vignesh teja yadav	21KP1A44C6	Chinni Pratap Kumar	Chinni Bhargavi	DS	80.0	19	Data Science	4th semester	639534870436

It consider the smallest and largest value

```
df.nsmallest(10, [ 'CGPA' ] )
```

OUTPUT:

o J .

	Gmail	STUDENT NAME	ROLL NUMBER	FATHER NAME	MOTHER NAME	COURSE	CGPA	AGE	BRANCH	SEMISTER	UIDAI NO
2	sravankumar7156@gmail.com	Sravan Kumar	21KP1A4488	Rama Chandra Rao	Venkateswaramma	MECH	7.0	20	mech	4	930319053088
16	vanukuri.raghava@gmail.com	Raghava	21KP1A44C3	Srinivasa reddy	Jyothi	DS	7.0	19	Data science	2-2	424973081348
45	mvkbn1312@gmail.com	R.M.V.K Brahma Naidu	21KP1A4489	Yedukondalu	Nirmala	DS	7.0	20	Data science	2-2	2387 7088 9424
11	podilisarayu6@gmail.com	PODILI LAKSHMISARAYU	21KP1A4480	PODILI RAMESH	ADILAKSHMI	DS	7.5	19	DATA SCIENCE	2-2	458689741091
46	nrajasambasivarao@gmail.com	Narra Raja Samba Siva Rao	21KP1A4471	Narra SrinivasaRao	Narra Ramadevi	DS	7.5	19	CSD (Data science)	4	835457902826
10	tammashithi1@gmail.com	Tamma Sahithi	21KP1A44B0	Tamma krishna reddy	Tamma Padmavathi	DS	7.7	19	CSE (Data science)	2-2	685349832128
0	vennachandana1@gmail.com	Venna Chandana	21KP1A44C5	Venna Ramanareddy	Venna Lakshmidevi	DS	8.0	19	Data science	2-2	636336922883
8	syedtasleem07@gmail.com	Syed Tasleem Afroze	21KP1A44A9	Syed Rahiman	Syed Naseema	MECH	8.0	19	DS	2-2	617020354793
9	sowjanyathota11@gmail.com	T.SOWJANYA	21KP1A44B6	T.SAMBA SIVA RAO	TARUNA KUMARI	DS	8.0	19	DATA SCIENCE	2-2	338666948901
26	abdulkhadar6842@gmail.com	Shaik Abdul Khadar	21KP1A4493	Shaik.Kareem	Shaik.Farjana	ECE	8.0	20	20	2-2	334708289154

```
df.nlargest(10, [ 'CGPA' ])
```

OUTPUT:

	Gmail	STUDENT NAME	ROLL NUMBER	FATHER NAME	MOTHER NAME	COURSE	CGPA	AGE	BRANCH	SEMISTER	UIDAI NO
14	patchachinnu3@gmail.com	Patcha Jaswanth	21KP1A4477	Patcha apparao	Patcha sukanya	CSE	99.0	20	Data science	2-2	744020413963
13	kumarvalaparla890@gmail.com	Venkata Aravind Kumar.V	21KP1A44C0	Veeraswamy.v	Lakshmi.v	DS	98.0	20	Data Science	2-2	510305345824
38	abdulabdu22070@gmail.com	Syed Abdul Reheman	21KP1A44A6	Syed Meera Sharif	Bandi.Krishna veni	DS	90.0	20	DS	2-2	347853509974
48	sriharshanallabothu@gmail.com	Nallabothu. Sri Harsha	21KP1A4469	Nallabothu. Anjaneyulu	Nallabothu. Anitha	DS	90.0	21	CSD	2-2	208611060176
50	arundathi0508@gmail.com	PANDA UMA ARUNDATHI	21KP1A4474	PANDA NARAYANA RAO	PANDA PRASANNA LAKSHMI	DS	87.0	19	CSD	2-2	652650486629
1	adilakshmi4765@gmail.com	N.Venkatesh	21KP1A4468	N.Manikya Rao	N.Sri Lakshmi	CSE	83.0	19	CSE-DS	II-II	602515258256
5	ramyayalabolu123r@gmail.com	Y.Ramya	21KP1A44C8	Y.Anjaiah	Y Lakshmi Rajyam	DS	80.0	19	CSD	2-2	724574588425
17	shaiksakina05@gmail.com	Shaik sameer	21KP1A44A3	Shaik Rahim babu	Shaik Raziya	DS	80.0	20	DS	2-2	529261464345
27	ravuakshaya@gmail.com	Ravu.akshaya	21KP1A4485	Ravu.srinivasrao	Ravu.aruna kumari	DS	80.0	19	Ds	2-2	544305783128
36	nikitharayapati9@gmail.com	Nikhitha Rayapati	21KP1A4487	Rayapati hanumathrao	Rayapati malleswari	DS	80.0	19	Ds	2-2	963360828294

Here group the columns by using different operations

```
df.groupby( 'BRANCH' ).mean()
```

OUTPUT:

	CGPA
BRANCH	
	19 9.050000
	20 8.600000
	CSD 68.583333
	CSD (Data science) 7.500000
	CSD(Data Science) 80.000000
	CSE 9.500000
	CSE (Data science) 7.700000
	CSE-DS 83.000000
	Computer Science 9.200000
Computer Science Engineering& Data Science	73.000000
	Computer science 72.000000
	Cse- Data Science 70.000000
	DATA SCIENCE 7.750000
	DATASCIENCE 80.000000
	DS 64.000000
	Da 10.000000
	Data Science 77.500000
	Data Science 61.000000
	Data science 7.000000
	Data science 34.716667
	Ds 59.700000
	cse 72.500000
	ds 9.000000
	mech 7.000000

Here we use the groupby to combine the columns

```
df.groupby('AGE').mean()
```

OUTPUT:

CGPA	AGE
41.500000	18
73.000000	18h
47.165517	19
47.135714	20
29.150000	21
72.000000	23

It replace the value with your own value

```
df.replace(['18h'],18,inplace=True)  
print(df)
```

OUTPUT:

0	Gmail	STUDENT NAME \
1	vennachandana1@gmail.com	Venna Chandana
2	adilakshmi4765@gmail.com	N.Venkatesh
3	sravankumar7156@gmail.com	Sravan Kumar
	sandeepyruval124@gmail.com	Yeruva sandeep reddy
4	sivajibejjanki@gmail.com	B.sivaji
5	ramyayalabolu123r@gmail.com	Y.Ramya
6	charithareddy3914@gmail.com	P.charitha reddy
7	gayathripolepalli70@gmail.com	POLEPALLI. GAYATHRI
8	syedtasleem07@gmail.com	Syed Tasleem Afrose
9	sowjanyathota11@gmail.com	T.SOWJANYA
10	tammasaahithi1@gmail.com	Tamma Sahithi
	ROLL NUMBER	MOTHER NAME \
0	21KP1A44C5	Venna Ramanareddy
1	21KP1A4468	N.Manikya Rao
2	21KP1A4488	Rama Chandra Rao

3	21KP1A44D1	Yeruva Ajay Kumar reddy	Yeruva Anjali Devi
4	22kp5a4402	B.lakshmaiah	B.veramma
5	21KP1A44C8	Y.Anjaiah	Y Lakshmi Rajyam
6	21KP1A4475	P.Madhava Reddy	P.Kavitha
7	21KP1A4481	POLEPALLI. GURUBRAHMA CHARI	POLEPALLI.SRIDEVI
8	21KP1A44A9	Syed Rahiman	Syed Naseema
9	21KP1A44B6	T.SAMBA SIVA RAO	T.ARUNA KUMARI
10	21KP1A44B0	Tamma krishna reddy	Tamma Padmavathi
	COURSE CGPA AGE		BRANCH \
0	DS 8.0 19		Data science
1	CSE 83.0 19		CSE-DS
2	MECH 7.0 20		mech
3	CSE 9.5 20		CSE
4	DS 72.0 23		Computer science
5	DS 80.0 19		CSD
6	DS 70.0 19		CSD
7	DS 10.0 19		Data Science
8	MECH 8.0 19		DS
9	DS 8.0 19		DATA SCIENCE
10	DS 7.7 19		CSE (Data science)
	SEMISTER UIDAI NO		
0	2-2 636336922883		
1	II-II 602515258256		
2	4 930319053088		
3	2-3 576154990146		
4	2-2 895444662410		
5	2-2 724574588425		
6	2.2 810177524502		
7	2-2 721819168061		
8	2-2 617020354793		
9	2-2 338666948901		
10	2-2 685349832128		

Combine the columns

```
x=df.groupby('COURSE').get_group('DS')
print(x)
```

OUTPUT:

0	Gmail	STUDENT NAME \
	vennachandana1@gmail.com	Venna Chandana
4	sivajibejjanki@gmail.com	B.sivaji
5	ramyayalabolu123r@gmail.com	Y.Ramya
6	charithareddy3914@gmail.com	P.charitha reddy
7	gayathriolepalli70@gmail.com	POLEPALLI. GAYATHRI
9	sowjanyathotall@gmail.com	T.SOWJANYA
10	tammasahithil@gmail.com	Tamma Sahithi
11	podilisarayu6@gmail.com	PODILI LAKSHMISARAYU
12	shaikkarishma811@gmail.com	shaik karishma
13	kumarvalaparla890@gmail.com	Venkata Aravind Kumar.V

	ROLL NUMBER	FATHER NAME	MOTHER NAME COURS
E	\		
0	21KP1A44C5	Venna Ramanareddy	Venna Lakshmidévi D
S			
4	22kp5a4402	B.lakshmaiah	B.veramma D
S			
5	21KP1A44C8	Y.Anjaiah	Y Lakshmi Rajyam D
S			
6	21KP1A4475	P.Madhava Reddy	P.Kavitha D
S			
7	21KP1A4481 POLEPALLI. GURUBRAHMA CHARI		POLEPALLI.SRIDEVI D
S			
9	21KP1A44B6	T.SAMBA SIVA RAO	T.ARUNA KUMARI D
S			
10	21KP1A44B0	Tamma krishna reddy	Tamma Padmavathi D
S			
	CGPA AGE	BRANCH	SEMISTER \
0	8.0 19	Data science	2-2
4	72.0 23	Computer science	2-2
5	80.0 19	CSD	2-2
6	70.0 19	CSD	2.2
7	10.0 19	Data Science	2-2
9	8.0 19	DATA SCIENCE	2-2
10	7.7 19	CSE (Data science)	2-2
11	7.5 19	DATA SCIENCE	2-2
12	9.0 19	ds	2-2
13	98.0 20	Data Science	2-2
32	75.0 18	Data Science	2-2
2.2			
50	87.0 19	CSD	2-2
51	80.0 19	Data Science	4th semester
	UIDAI NO		
0	636336922883		
4	895444662410		
5	724574588425		
6	810177524502		
7	721819168061		
9	338666948901		
10	685349832128		
11	458689741091		
12	663048521599		
13	510305345824		
16	424973081348		

```
x1=df.groupby('COURSE').get_group('MECH')
print(x1)
```

OUTPUT:

	Gmail	STUDENT NAME	ROLL NUMBER	\
2	sravankumar7156@gmail.com	Sravan Kumar	21KP1A4488	
8	syedtasleem07@gmail.com	Syed Tasleem Afroze	21KP1A44A9	
15	manu952041@gmail.com	Pachipulusu Manohar	21KP1A4472	
R \	FATHER NAME	MOTHER NAME	COURSE	CGPA AGE BRANCH SEMISTE
2	Rama Chandra Rao	Venkateswaramma	MECH	7.0 20 mech
4				
8	Syed Rahiman	Syed Naseema	MECH	8.0 19 DS 2-
2				
15	Pachipulusu Prasad	Pachipulusu Bhavani	MECH	8.5 19 2-
2				
	UIDAI NO			
2	930319053088			
8	617020354793			
15	559366114423			

```
x2=df.groupby('COURSE').get_group('CSE')
print(x2)
```

OUTPUT:

	Gmail	STUDENT NAME	\	
1	adilakshmi4765@gmail.com	N.Venkatesh		
3	sandeepyeruval124@gmail.com	Yeruva sandeep reddy		
14	patchachinnu3@gmail.com	Patcha Jaswanth		
28	hemasanjushasanikommu828@gmail.com	hema sanjusha		
34	sudhamshavejendla@gmail.com	Vejendla Devi Sri Sudhamsha		
37	indhupotla123@gmail.com	indhu priya		
39	jaffershshaik718@gmail.com	Jaffer shaik		
47	saisairam068@gmail.com	Sairam		
ROLL NUMBER	FATHER NAME	MOTHER NAME	COURSE	\
1	N.Manikya Rao	N.Sri Lakshmi	CSE	
3	Yeruva Ajay Kumar reddy	Yeruva Anjali Devi	CSE	
14	Patcha apparaao	Patcha sukanya	CSE	
28	musalareddy	sivaparvathi	CSE	
34	Vejendla Srinivass Rao	Vejendla Laxmi Prasanna	CSE	
37	Lakshmanarayana	Sujatha	CSE	
39	shaik.LaiLaha	shaik.Ramjan bee	CSE	
47	Venkata subbiah	Ravanamma	CSE	
CGPA AGE	BRANCH SEMISTER	UIDAI NO		
1	83.0 19	CSE-DS II-II	602515258256	
3	9.5 20	CSE 2-3	576154990146	
14	99.0 20	Data science 2-2	744020413963	
28	73.0 18	cse 2-2	422314863763	
34	70.0 19	Cse- Data Science 2_2	587480445790	
37	72.0 19	cse 2-2	524345891620	
39	NaN 19	cse 2nd	912229276699	
47	10.0 19	Da 2-2	746109575146	

```
x3=df.groupby('COURSE').get_group('ECE')
print(x3)
```

OUTPUT:

```
Gmail STUDENT NAME ROLL NUMBER FATHER NAME \
26 abdulkhadar6842@gmail.com Shaik.Abdul Khadar 21KP1A4493 Shaik.Kareem
```

```
MOTHER NAME COURSE CGPA AGE BRANCH SEMISTER UIDAI NO
26 Shaik.Farjana ECE 8.0 20 20 2-2 334708289154
```

```
df1=df.groupby('AGE').get_group(18)
print(df1)
```

OUTPUT:

	Gmail	STUDENT NAME	ROLL NUMBER	FATHER NAME	MOTHER NAME	COURSE	CGPA	AGE	BRANCH	SEMISTER	UIDAI NO
28	hemasanjushasanikommu828@gmail.com	hema sanjusha	21KP1A4491	musalareddy	sivaparvathi	CSE	73.0	18	cse	2-2	422314863763
30	rahamtunnisashaik09@gmail.com	Shaik Rahamtunniisa	21KP1A44A0	Shaik.mahaboobjani	Shaik.munni	DS	8.0	18	Data science	2-2	406976169351
32	indupriya72216@gmail.com	Indu Priya Patcha	21KP1A4476	Appa rao Patcha	Renuka Patcha	DS	75.0	18	Data Science	2-2	573041880949

```
df2=df.groupby('AGE').get_group(19)
print(df2)
```

OUTPUT:

```
df3=df.groupby('AGE').get_group(20)
print(df3)
```

	Gmail	STUDENT NAME	ROLL NUMBER	FATHER NAME	MOTHER NAME	COURSE	CGPA	AGE	BRANCH	SEMISTER	UIDAI NO
0	vennachandana1@gmail.com	Venna Chandana	21KP1A44C5	Venna Ramanareddy	Venna Lakshminidevi	DS	8.0	19	Data science	2-2	636336922883
1	adilakshmi4765@gmail.com	N.Venkatesh	21KP1A4468	N.Manikya Rao	N.Sri Lakshmi	CSE	83.0	19	CSE-DS	II-II	602515258256
5	ramyayalabolu123r@gmail.com	Y.Ramya	21KP1A44C8	Y.Anjaiah	Y Lakshmi Rajyam	DS	80.0	19	CSD	2-2	724574588425
6	charithareddy3914@gmail.com	P.charitha reddy	21KP1A4475	P.Madhava Reddy	P.Kavitha	DS	70.0	19	CSD	2-2	810177524502
7	gayathripolepalli70@gmail.com	POLEPALLI GAYATHRI	21KP1A4481	POLEPALLI GURUBRAHMA CHARI	POLEPALLI SRIDEVI	DS	10.0	19	Data Science	2-2	721819168061
8	syedtasleem07@gmail.com	Syed Tasleem Afrose	21KP1A44A9	Syed Rahiman	Syed Naseema	MECH	8.0	19	DS	2-2	617020354793
9	sowjanyathota11@gmail.com	T.SOWJANYA	21KP1A44B6	T.SAMBA SIVA RAO	T.ARUNA KUMARI	DS	8.0	19	DATA SCIENCE	2-2	338666948901
10	tammasaithi1@gmail.com	Tamma Sahithi	21KP1A44B0	Tamma krishna reddy	Tamma Padmavathi	DS	7.7	19	CSE (Data science)	2-2	685349832128
11	podilisarayu6@gmail.com	PODILI LAKSHMISARAYU	21KP1A44B0	PODILI RAMESH	PODILI ADILAKSHMI	DS	7.5	19	DATA SCIENCE	2-2	458689741091
12	shaikkarishma811@gmail.com	shaik karishma	21KP1A4496	SHAIK BAJI	SHAIK KHADRUN	DS	9.0	19	ds	2-2	663048521599
15	manu952041@gmail.com	Pachipulusu Manohar	21KP1A4472	Pachipulusu Prasad	Pachipulusu Bhavani	MECH	8.5	19	19	2-2	559366114423
16	vanukuri.raghava@gmail.com	Raghava	21KP1A44C3	Srinivasa reddy	Jyothi	DS	7.0	19	Data science	2-2	424973081348
18	us465249@gmail.com	S sk usman	21KP1A4492	S sk mastan vali	Mahabobba	DS	50.0	19	DS	2-2	568753875709
21	farukh.786syed@gmail.com	SYED.FARUKH	21KP1A44A7	SYED.BAJI	SYED.SARTHAJ BEGUM	DS	70.0	19	DS	2-2	764320730678
22	anushayalabolu12@gmail.com	Anusha labolu	21KP1A44C7	Chinna anjayya	Lakshmi narayana	DS	75.0	19	CSD	2-2	830785066037
24	thammisettyrikanthraj9@gmail.com	T.Srikant	21KP1A44B5	T.vasu	T.jaya	DS	75.0	19	Data Science	2-2	673112205183
27	ravuakshaya@gmail.com	Ravu.akshaya	21KP1A4485	Ravu.srinivasrao	Ravu.aruna kumari	DS	80.0	19	Ds	2-2	544305783128
31	harikabangaram313@gmail.com	Harika	22KP5A4401	A.Subramanyam	A.Dhana Bhagyam	DS	75.0	19	Data science	2-2	574930568520
33	bhavyasrisajja2003@gmail.com	Bhavya sri	21KP1A4490	Mohan krishna	Usha rani	DS	70.0	19	Ds	2-2	274736890047
34	sudhamsharejendla@gmail.com	Vejendla Devi Sri Sudhamsha	21KP1A44C4	Vejendla Srinivass Rao	Vejendla Laxmi Prasanna	CSE	70.0	19	Cse- Data Science	2,2	587480445790
35	bhanuthaniru@gmail.com	Thaniru Bhanu venkata prasad	21KP1A44B2	T sathyaranayana	T rama devi	DS	9.6	19	19	2-2	357228202835
36	nikitharayapati9@gmail.com	Nikhitha Rayapati	21KP1A4487	Rayapati hanumathrao	Rayapati malleswari	DS	80.0	19	Ds	2-2	963360828294
37	indhupotla123@gmail.com	indhu priya	21KP1A4483	Lakshmanarayana	Sujatha	CSE	72.0	19	cse	2-2	524345891620
39	jaffershalk718@gmail.com	Jaffer shaik	21KP1A4495	shaik.LaiLaha	shaik.Ramjan bee	CSE	NaN	19	cse	2nd	912229276699
41	reshmayalamanchi@gmail.com	Reshma yalamanchi	21KP1A44C9	Yalamanchi subba Rao	Yalamanchi sunitha	DS	75.0	19	DS	4	742366316353
42	thiriveedhingajyothi@gmail.com	T. Nagajyothi	21KP1A4487	T. Venkayya	T. Ramajamma	DS	75.0	19	DS	4	330477145525
46	nrajasambasivarao@gmail.com	Narra Raja Samba Siva Rao	21KP1A4471	Narra SrinivasaRao	Narra Ramadevi	DS	7.5	19	CSD (Data science)	4	835457902826
47	saisairam068@gmail.com	Sairam	21kp1a44b4	Venkata subbiah	Ravanamma	CSE	10.0	19	Da	2-2	746109575146
50	arundathi0508@gmail.com	PANDA UMA ARUNDATHI	21KP1A4474	PANDA NARAYANA RAO	PANDA PRASANNA LAKSHMI	DS	87.0	19	CSD	2-2	652650486629
51	chinnivgnesh144@gmail.com	chinni vignesh teja yadav	21KP1A44C6	Chinni Pratap Kumar	Chinni Bhargavi	DS	80.0	19	Data Science	4th semester	639534870436

OUTPUT :

	Gmail	STUDENT NAME	ROLL NUMBER	FATHER NAME	MOTHER NAME	COURSE	CGPA	AGE	BRANCH	SEMISTER	UIDAI NO
2	sravankumar7156@gmail.com	Sravan Kumar	21KP1A4488	Rama Chandra Rao	Venkateswaramma	MECH	7.0	20	mech	4	930319053088
3	sandeepyruva1124@gmail.com	Yeruva sandeep reddy	21KP1A44D1	Yeruva Ajay Kumar reddy	Yeruva Anjali Devi	CSE	9.5	20	CSE	2-3	576154990146
13	kumarvalaparla890@gmail.com	Venkata Aravind Kumar.V	21KP1A44C0	Veeraswamy.v	Lakshmi.v	DS	98.0	20	Data Science	2-2	510305345824
14	patchachinu3@gmail.com	Patcha Jaswanth	21KP1A4477	Patcha apparaao	Patcha sukanya	CSE	99.0	20	Data science	2-2	744020413963
17	shaiksakina05@gmail.com	Shaik sameer	21KP1A44A3	Shaik Rahim babu	Shaik Raziya	DS	80.0	20	DS	2-2	529261464345
19	vallu.srinu756939@gmail.com	Vallu Srinu Siva Subrahmanyam	21KP1A44C1	Vallu Srinivasa Rao	Vallu Surya kumari	DS	73.0	20	Computer Science Engineering& Data Science	4	654273218990
20	undelachandraobulareddy@gmail.com	Undela Chandra Obula Reddy	21KP1A44B9	Undela Chinna Obula Reddy	Undela GuruLakshmi	DS	9.2	20	Computer Science	2-2	693621780842
23	madhulathasure9@gmail.com	SURE. MADHULATHA	21KP1A44A4	SURE.VISWANADHAM	SURE.SAI LAKSHMI	DS	10.0	20	Data science	2-2	776486062608
26	abdulkhadar6842@gmail.com	Shaik.Abdul Khadar	21KP1A4493	Shaik.Kareem	Shaik.Farjana	ECE	8.0	20		20	334708289154
29	ynagasakiukumar@gmail.com	Y Naga Sasi Kumar	21KP1A44D0	Y Rama mohanrao	Y Lalitha	DS	9.2	20		20	2-2 448172496292
38	abdulabdul22070@gmail.com	Syed.Abdul Reheman	21KP1A44A6	Syed.Meera Sharif	Bandi.Krishna veni	DS	90.0	20		2-2	347853509974
43	paladugudurga1@gmail.com	P. Durga Sri	21KP1A4473	P. Amareswara rao	P. Sesu Kumari	DS	80.0	20	CSD(Data Science)	2-2	692162661608
44	saidashaik371@gmail.com	SHAIK SAIDA ANWAR BASHA	21KP1A44A2	SHAIK KUDHAN VALI	SHAIK SAIDA HUSSANBI	DS	80.0	20	DATASCIENCE	2-2	466722650274
45	mvkbn1312@gmail.com	R.M.V.K.Brahma Naidu	21KP1A4489	Yedukondalu	Nirmala	DS	7.0	20		Data science	2-2 2387 7088 9424

```
df4=df.groupby('AGE').get_group(21)
print(df4)
```

OUTPUT:

	Gmail	STUDENT NAME	ROLL NUMBER	FATHER NAME	MOTHER NAME	COURSE	CGPA	AGE	BRANCH	SEMISTER	UIDAI NO
25	shiakmobil2002@gmail.com	Shaikmobil	21KP1A4497	shaik karimullah	Shaik rihana	DS	8.8	21	Ds	2.2	904355656468
40	rabbanishaik7356@gmail.com	SHAIK RABBANI	21KP1A4499	SHAIK MOHAMMAD HANIF	SHAIK MALIN	DS	9.5	21	CSD	2-2	205933956204
48	sriharshanallabothu@gmail.com	Nallabothu. Sri Harsha	21KP1A4469	Nallabothu. Anjaneyulu	Nallabothu. Anitha	DS	90.0	21	CSD	2-2	208611060176
49	bhuvanarpuli@gmail.com	Puli bhuvaneswar	21KP1A4484	Puli mallikarjuna	Puli ramadevi	DS	8.3	21	Data science	2.2	950519207474

```
df5=df.groupby('AGE').get_group(23)
print(df5)
```

OUTPUT:

```
Gmail STUDENT NAME ROLL NUMBER FATHER NAME \
4 sivajibejjanki@gmail.com B.sivaji 22kp5a4402 B.lakshmaiah

MOTHER NAME COURSE CGPA AGE BRANCH SEMISTER UIDAI NO
4 B.veramma DS 72.0 23 Computer science 2-2 895444662410
```

Change the datatype

```
df.AGE=df.AGE.astype(int)
print(df)
```

OUTPUT:

```
Gmail STUDENT NAME \
```

0	vennachandana1@gmail.com	Venna Chandana
1	adilakshmi4765@gmail.com	N.Venkatesh
2	sravankumar7156@gmail.com	Sravan Kumar
3	sandeepyeduval124@gmail.com	Yeruva sandeep reddy
4	sivajibejjanki@gmail.com	B.sivaji
5	ramyayalabolu123r@gmail.com	Y.Ramya
6	charithareddy3914@gmail.com	P.charitha reddy
7	gayathripolepalli70@gmail.com	POLEPALLI. GAYATHRI
8	syedtasleem07@gmail.com	Syed Tasleem Afroze
9	sowjanyathota11@gmail.com	T.SOWJANYA
10	tammashithi1@gmail.com	Tamma Sahithi
11	podilisarayu6@gmail.com	PODILI LAKSHMISARAYU
12	shaikkarishma811@gmail.com	shaik karishma
13	kumarvalaparla890@gmail.com	Venkata Aravind Kumar.V
14	patchachinnu3@gmail.com	Patcha Jaswanth
15	manu952041@gmail.com	Pachipulusu Manohar

	ROLL NUMBER	FATHER NAME	MOTHER NAME
0	21KP1A44C5	Venna Ramanareddy	Venna Lakshmidevi
1	21KP1A4468	N.Manikya Rao	N.Sri Lakshmi
2	21KP1A4488	Rama Chandra Rao	Venkateswaramma
3	21KP1A44D1	Yeruva Ajay Kumar reddy	Yeruva Anjali Devi
4	22kp5a4402	B.lakshmaiah	B.veramma
5	21KP1A44C8	Y.Anjaiah	Y Lakshmi Rajyam
6	21KP1A4475	P.Madhava Reddy	P.Kavitha
7	21KP1A4481	POLEPALLI. GURUBRAHMA CHARI	POLEPALLI.SRIDEVI
8	21KP1A44A9	Syed Rahiman	Syed Naseema
9	21KP1A44B6	T.SAMBA SIVA RAO	T.ARUNA KUMARI
10	21KP1A44B0	Tamma krishna reddy	Tamma Padmavathi
11	21KP1A4480	PODILI RAMESH	PODILI ADILAKSHMI
12	21KP1A4496	SHAIK BAJI	SHAIK KHADRUN
13	21KP1A44C0	Veeraswamy.v	Lakshmi.v
14	21KP1A4477	Patcha apparao	Patcha sukanya

	COURSE	CGPA	AGE	BRANCH
0	DS	8.0	19	Data science
1	CSE	83.0	19	CSE-DS
2	MECH	7.0	20	mech
3	CSE	9.5	20	CSE
4	DS	72.0	23	Computer science
5	DS	80.0	19	CSD
6	DS	70.0	19	CSD
7	DS	10.0	19	Data Science
8	MECH	8.0	19	DS
9	DS	8.0	19	DATA SCIENCE
10	DS	7.7	19	CSE (Data science)
11	DS	7.5	19	DATA SCIENCE
12	DS	9.0	19	ds
13	DS	98.0	20	Data Science
14	CSE	99.0	20	Data science

	SEMISTER	UIDAI NO
0	2-2	636336922883

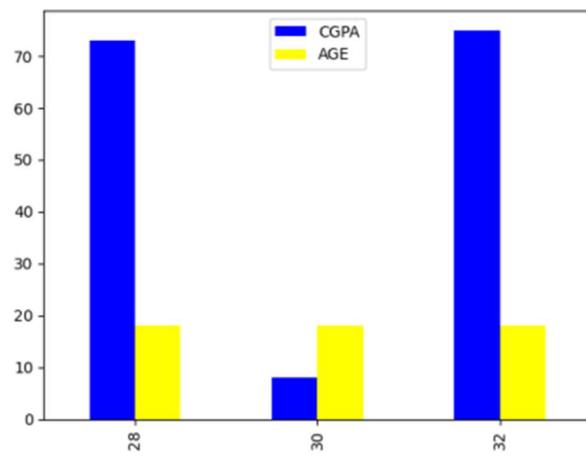
1	II-II	602515258256
2	4	930319053088
3	2-3	576154990146
4	2-2	895444662410
5	2-2	724574588425
6	2.2	810177524502
7	2-2	721819168061
8	2-2	617020354793
9	2-2	338666948901
10	2-2	685349832128
11	2-2	458689741091
12	2-2	663048521599
13	2-2	510305345824
14	2-2	744020413963
15	2-2	559366114423

Here we represent the CGPA, AGE columns in the plot

```
df1.plot.bar(color=['blue','yellow'])
df1
```

OUTPUT:

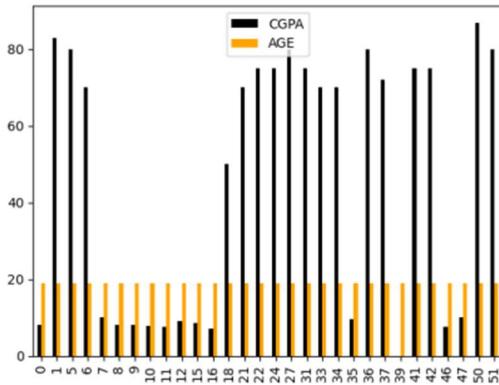
	Gmail	STUDENT NAME	ROLL NUMBER	FATHER NAME	MOTHER NAME	COURSE	CGPA	AGE	BRANCH	SEMISTER	UIDAI NO
28	hemasanjushasanikommu828@gmail.com	hema sanjusha	21KP1A4491	musalareddy	sivaparvathi	CSE	73.0	18	cse	2-2	422314863763
30	rahamtunisashaik09@gmail.com	Shaik Rahamtunnisa	21KP1A44A0	Shaik.mahaboobjani	Shaik.munni	DS	8.0	18	Data science	2-2	406976169351
32	indupriya72216@gmail.com	Indu Priya Patcha	21KP1A4476	Appa rao Patcha	Renuka Patcha	DS	75.0	18	Data Science	2-2	573041880949



```
df2.plot.bar(color=['black','orange'])
df2
```

OUTPUT:

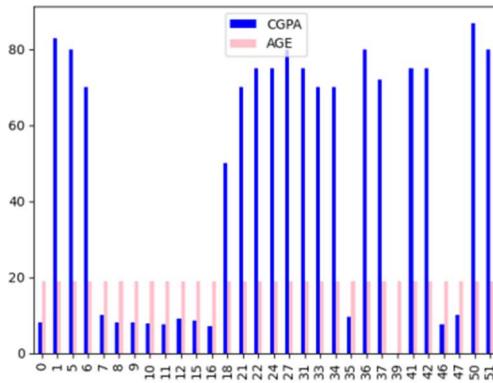
	Gmail	STUDENT NAME	ROLL NUMBER	FATHER NAME	MOTHER NAME	COURSE	CGPA	AGE	BRANCH	SEMISTER	UIDAI NO
0	vennachandana1@gmail.com	Venna Chandana	21KP1A44C5	Venna Ramanareddy	Venna Lakshmidevi	DS	8.0	19	Data science	2-2	636336922883
1	adilakshmi4765@gmail.com	N.Venkatesh	21KP1A4468	N.Manika Rao	N.Sri Lakshmi	CSE	83.0	19	CSE-DS	II-II	602515258256
5	ramyayalabolu123@gmail.com	Y.Ramya	21KP1A44C8	Y.Anjaiah	Y Lakshmi Rajyan	DS	80.0	19	CSD	2-2	724574588425
6	charithareddy3914@gmail.com	P.charitha reddy	21KP1A4475	P.Madhava Reddy	P.Kavitha	DS	70.0	19	CSD	2.2	810177524502
7	gayathripolepalli70@gmail.com	POLEPALLI GAYATHRI	21KP1A4481	POLEPALLI GURUBRAHMA CHARI	POLEPALLI SRIDEVI	DS	10.0	19	Data Science	2-2	721819168061
8	syedtalsleem07@gmail.com	Syed Tasleem Afrose	21KP1A44A9	Syed Rahiman	Syed Naseema	MECH	8.0	19	DS	2-2	617020354793
9	sowjanyatha11@gmail.com	T.SOWJANYA	21KP1A44B6	T.SAMBA SIVA RAO	TARUNA KUMARI	DS	8.0	19	DATA SCIENCE	2-2	338666948901
10	tammashithi1@gmail.com	Tamma Sahithi	21KP1A44B0	Tamma krishna reddy	Tamma Padmavathi	DS	7.7	19	CSE (Data science)	2-2	685349832128
11	podilisarayu6@gmail.com	PODILU LAKSHMISARAYU	21KP1A44B0	PODILU RAMESH	PODILU ADILAKSHMI	DS	7.5	19	DATA SCIENCE	2-2	458689741091
12	shaikkarishma811@gmail.com	shaik karishma	21KP1A4496	SHAIK BAJI	SHAIK KHADRUN	DS	9.0	19	ds	2-2	663048521599
15	manu952041@gmail.com	Pachipulusu Manohar	21KP1A4472	Pachipulusu Prasad	Pachipulusu Bhavani	MECH	8.5	19	19	2-2	559366114423
16	vanukuri.raghava@gmail.com	Raghava	21KP1A44C3	Srinivasa reddy	Jyothi	DS	7.0	19	Data science	2-2	424973081348
18	us465249@gmail.com	S sk usman	21KP1A4492	S sk mastan vali	Mahabobba	DS	50.0	19	DS	2-2	568753875709
21	farukh.786syed@gmail.com	SYED.FARUKH	21KP1A44A7	SYED.BAJI	SYED.SARTHAJ BEGUM	DS	70.0	19	DS	2-2	764320730678
22	anushayalabolu12@gmail.com	Anusha yalabolu	21KP1A44C7	Chinna anjaya	Lakshmi narayana	DS	75.0	19	CSD	2-2	830785066037
24	thammisettyrakanthra9@gmail.com	T.Srikanth	21KP1A44B5	T.vasu	T.jaya	DS	75.0	19	Data Science	2-2	673112205183
27	ravuakshaya@gmail.com	Ravu.akshaya	21KP1A44B5	Ravu.srinivasrao	Ravu.aruna kumari	DS	80.0	19	Ds	2.2	544305783128
31	hariocabaram313@gmail.com	Harika	22KP5A4401	A.Subramanyam	A.Dhana Bhagyan	DS	75.0	19	Data science	2-2	574930568520
33	bhavyasrisajja2003@gmail.com	Bhavya sri	21KP1A4490	Mohan krishna	Usha rani	DS	70.0	19	Ds	2-2	274736890047
34	sudhamshavejendra@gmail.com	Vejendra Devi Sri Sudhamsha	21KP1A44C4	Vejendra Srinivass Rao	Vejendra Laxmi Prasanna	CSE	70.0	19	Cse- Data Science	2,2	587480445790
35	bhanuthanirru@gmail.com	Thaniru Bhanu venkata prasad	21KP1A44B2	T satyhanaryana	T rama devi	DS	9.6	19	19	2-2	357228202835
36	nikitharayapat9@gmail.com	Nikhitha Rayapati	21KP1A44B7	Rayapati hanumathrao	Rayapati malleswari	DS	80.0	19	Ds	2-2	963360828294
37	indhupota123@gmail.com	indhu priya	21KP1A44B3	Lakshmanarayana	Sujatha	CSE	72.0	19	cse	2-2	524345891620
39	jaffershalki718@gmail.com	Jaffer shalki	21KP1A4495	shaik.LaiLaha	shaik.Ramjan bee	CSE	NaN	19	cse	2nd	912229276699
41	reshmayalamanchi@gmail.com	Reshma yalamanchi	21KP1A44C9	Yalamanchi subba Rao	Yalamanchi sunitha	DS	75.0	19	DS	4	742366316353
42	thriveedhinagajothi@gmail.com	T. Nagajyothi	21KP1A44B7	T. Venkayya	T. Ramanjamma	DS	75.0	19	DS	4	330477145525
46	nrajasambasivarao@gmail.com	Narra Raja Samba Siva Rao	21KP1A4471	Narra SrinivasaRao	Narra Ramadevi	DS	7.5	19	CSD (Data science)	4	835457902826
47	saisairam068@gmail.com	Sairam	21kp1a44b4	Venkata subbiah	Ravanamma	CSE	10.0	19	Da	2-2	746109575146
50	arundathi0508@gmail.com	PANDA UMA ARUNDATHI	21KP1A4474	PANDA NARAYANA RAO	PANDA PRASANNA LAKSHMI	DS	87.0	19	CSD	2-2	652650486629
51	chinnivignesh144@gmail.com	chinni vignesh teja yadav	21KP1A44C6	Chinni Pratap Kumar	Chinni Bhargavi	DS	80.0	19	Data Science	4th semester	639534870436



```
df2.plot.bar(color=['blue','pink'])
df2
```

OUTPUT:

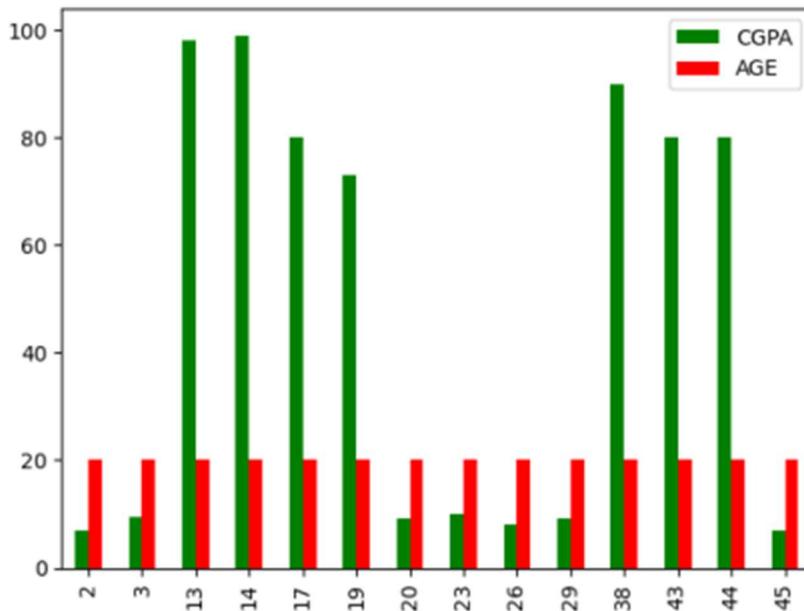
	Gmail	STUDENT NAME	ROLL NUMBER	FATHER NAME	MOTHER NAME	COURSE	CGPA	AGE	BRANCH	SEMISTER	UIDAI NO
0	vennachandana1@gmail.com	Venna Chandana	21KP1A44C5	Venna RamanaReddy	Venna Lakshmidhi	DS	8.0	19	Data science	2-2	636336922883
1	adilakshmi4765@gmail.com	N.Venkatesh	21KP1A4468	N.Manika Rao	N.Sri Lakshmi	CSE	83.0	19	CSE-DS	II-II	602515258256
5	ramyayalabolu123r@gmail.com	Y.Ramya	21KP1A44C8	Y.Anjaiah	Y.Lakshmi Rajyam	DS	80.0	19	CSD	2-2	724574588425
6	charithareddy3914@gmail.com	P.charitha reddy	21KP1A4475	P.Madhava Reddy	P.Kavitha	DS	70.0	19	CSD	2.2	810177524502
7	gayathripolepalli70@gmail.com	POLEPALLI GAYATHRI	21KP1A4481	POLEPALLI GURUBRAHMA CHARI	POLEPALLI SRIDEVI	DS	10.0	19	Data Science	2-2	721819168061
8	syedtasleem07@gmail.com	Syed Tasleem Afroze	21KP1A44A9	Syed Rahiman	Syed Naseema	MECH	8.0	19	DS	2-2	617020354793
9	sowjanyathota11@gmail.com	T.SOWJANYA	21KP1A44B6	T.SAMBA SIVA RAO	T.ARUNA KUMARI	DS	8.0	19	DATA SCIENCE	2-2	338666948901
10	tammasaithi1@gmail.com	Tamma Sahithi	21KP1A44B0	Tamma Krishna reddy	Tamma Padmavathi	DS	7.7	19	CSE (Data science)	2-2	685349832128
11	podilisarayu6@gmail.com	PODILI LAKSHMISARAYU	21KP1A4480	PODILI RAMESH	PODILI ADILAKSHMI	DS	7.5	19	DATA SCIENCE	2-2	458689741091
12	shaikkarishma811@gmail.com	shaik karishma	21KP1A4496	SHAIK BAJI	SHAIK KHADRUN	DS	9.0	19	ds	2-2	663048521599
15	manu952041@gmail.com	Pachipulusu Manohar	21KP1A4472	Pachipulusu Prasad	Pachipulusu Bhavani	MECH	8.5	19	19	2-2	559366114423
16	vanukuri.raghava@gmail.com	Raghava	21KP1A44C3	Srinivasa reddy	Jyothi	DS	7.0	19	Data science	2-2	424973081348
18	us465249@gmail.com	S sk usman	21KP1A4492	S sk mastan vali	Mahabobba	DS	50.0	19	DS	2-2	568753875709
21	farukh.786syed@gmail.com	SYED.FARUKH	21KP1A44A7	SYED.BAJI	SYED.SARTHAJ BEGUM	DS	70.0	19	DS	2-2	764320730678
22	anushayalabolu12@gmail.com	Anusha yalabolu	21KP1A44C7	Chinna anjayya	Lakshmi narayana	DS	75.0	19	CSD	2-2	830785066037
24	thammisettysrikantha9@gmail.com	T.Srikant	21KP1A44B5	T.vasu	T.Jaya	DS	75.0	19	Data Science	2-2	673112205183
27	ravuakshaya@gmail.com	Ravu.akshaya	21KP1A4485	Ravu.srinivasrao	Ravu.aruna kumari	DS	80.0	19	Ds	2.2	544305783128
31	hankabangaram318@gmail.com	Harika	22KP5AA401	A.Subramanyam	A.Dhana Bhagyan	DS	75.0	19	Data science	2-2	574930568520
33	bhayyasrisaja2003@gmail.com	Bhavya sri	21KP1A4490	Mohan krishna	Usha rani	DS	70.0	19	Ds	2-2	274736890047
34	sudhamshavejendla@gmail.com	Vejendla Devi Sri Sudhamsha	21KP1A44C4	Vejendla Srinivass Rao	Vejendla Laxmi Prasanna	CSE	70.0	19	Cse- Data Science	2_2	587480445790
35	bhanuthaniru@gmail.com	Thaninuru Bhanu venkata prasad	21KP1A4482	T sathyaranayana	T rama devi	DS	9.6	19	19	2-2	357228202835
36	nikitharayapat9@gmail.com	Nikhitha Rayapati	21KP1A4487	Rayapati hanumathrao	Rayapati malleswari	DS	80.0	19	Ds	2-2	963360828294
37	indhupotla123@gmail.com	indhu priya	21KP1A4483	Lakshmanarayana	Sujatha	CSE	72.0	19	cse	2-2	524345891620
39	jaffershak1718@gmail.com	Jaffer shaik	21KP1A4495	shaik.LaiLaha	shaik.Ramjan bee	CSE	NaN	19	cse	2nd	91222976699
41	reshmayalamanchi@gmail.com	Reshma yalamanchi	21KP1A44C9	Yalamanchi subba Rao	Yalamanchi sunitha	DS	75.0	19	DS	4	742366316353
42	thiriveedhinagajyothi@gmail.com	T. Nagajyothi	21KP1A44B7	T. Venkayya	T. Ramanjamma	DS	75.0	19	DS	4	330477145525
46	nrajasambasivarao@gmail.com	Narra Raja Samba Siva Rao	21KP1A4471	Narra SrinivasaRao	Narra Ramadevi	DS	7.5	19	CSD (Data science)	4	835457902826
47	saisairam068@gmail.com	Sairam	21kp1a44b4	Venkata subbiah	Ravanamma	CSE	10.0	19	Da	2-2	746109575146
50	arundathi0508@gmail.com	PANDA UMA ARUNDATHI	21KP1A4474	PANDA NARAYANA RAO	PANDA PRASANNA LAKSHMI	DS	87.0	19	CSD	2-2	652650486629
51	chinnivignesh144@gmail.com	chinni vignesh teja yadav	21KP1A44C6	Chinni Pratap Kumar	Chinni Bhargavi	DS	80.0	19	Data Science	4th semester	639534870436



```
df3.plot.bar(color=['green','red'])
df3
```

OUTPUT:

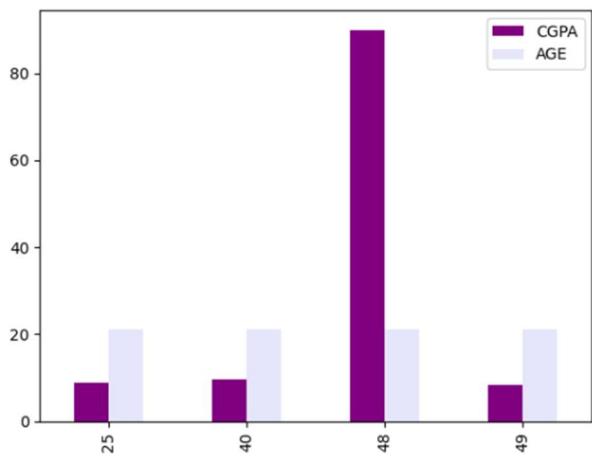
	Gmail	STUDENT NAME	ROLL NUMBER	FATHER NAME	MOTHER NAME	COURSE	CGPA	AGE	BRANCH	SEMISTER	UIDAI NO
2	srvankumar7156@gmail.com	Sravan Kumar	21KP1A4488	Rama Chandra Rao	Venkateswaramma	MECH	7.0	20		4	930319053088
3	sandeepyerauna124@gmail.com	Yeruva sandeep reddy	21KP1A44D1	Yeruva Ajay Kumar reddy	Yeruva Anjali Devi	CSE	9.5	20		2-3	576154990146
13	kumarvalaparula890@gmail.com	Venkata Aravind Kumar.V	21KP1A44C0	Veeraswamy.v	Lakshmi.v	DS	98.0	20	Data Science	2-2	510305345824
14	patchachinnu3@gmail.com	Patcha Jaswant	21KP1A4477	Patcha apparaao	Patcha sukanya	CSE	99.0	20	Data science	2-2	744020413963
17	shaiksakina05@gmail.com	Shaik sameer	21KP1A44A3	Shaik Rahim babu	Shaik Raziya	DS	80.0	20		DS	2-2 529261464345
19	vallu.srinu756939@gmail.com	Vallu Srinu Siva Subrahmanyam	21KP1A44C1	Vallu Srinivasa Rao	Vallu Surya kumari	DS	73.0	20	Computer Science Engineering& Data Science	4	654273218990
20	undelachandraobulareddy@gmail.com	Undela Chandra Obula Reddy	21KP1A44B9	Undela Chinna Obula Reddy	Undela GuruLakshmi	DS	9.2	20	Computer Science	2-2	693621780842
23	madhulathasure9@gmail.com	SURE. MADHULATHA	21KP1A44A4	SURE.VISWANADHAM	SURE.SAI LAKSHMI	DS	10.0	20	Data science	2-2	776486062608
26	abdulkhadar6842@gmail.com	Shaik.Abdul Khadar	21KP1A4493	Shaik.Kareem	Shaik.Farjana	ECE	8.0	20		20	2-2 334708289154
29	ynagasakiumar@gmail.com	Y Naga Sasi Kumar	21KP1A44D0	Y Rama mohanarao	Y Lalitha	DS	9.2	20		20	2-2 448172496292
38	abdulabdu22070@gmail.com	Syed.Abdul Rehaman	21KP1A44A6	Syed.Meera Sharif	Bandi.Krishna veni	DS	90.0	20		DS	2-2 347853509974
43	paladugudurga1@gmail.com	P. Durga Sri	21KP1A4473	P. Amareswara rao	P. Seshu Kumari	DS	80.0	20	CSD(Data Science)	2-2	692162661608
44	saidashai371@gmail.com	SHAIK SAIDA ANWAR BASHA	21KP1A44A2	SHAIK KUDHAN VALI	SHAIK SAIDA HUSSANBI	DS	80.0	20	DATASCIENCE	2-2	466722650274
45	mvkb1312@gmail.com	R.M.V.K.Brahma Naidu	21KP1A4489	Yedukondalu	Nirmala	DS	7.0	20	Data science	2-2	2387 7088 9424



```
df4.plot.bar(color=['purple','lavender'])
df4
```

OUTPUT:

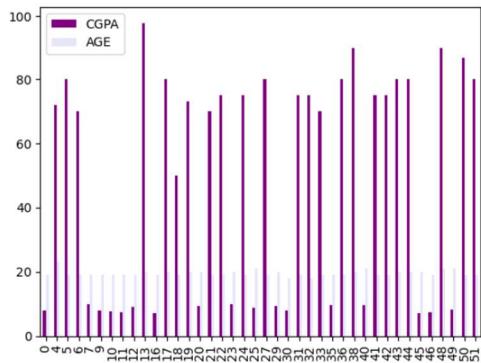
	Gmail	STUDENT NAME	ROLL NUMBER	FATHER NAME	MOTHER NAME	COURSE	CGPA	AGE	BRANCH	SEMISTER	UIDAI NO
25	shiakmobin2002@gmail.com	Shaikmobin	21KP1A4497	shaik karimullah	Shaik rihana	DS	8.8	21	Ds	2.2	904355656468
40	rabbanishaik7356@gmail.com	SHAIK RABBANI	21KP1A4499	SHAIK MOHAMMAD HANIF	SHAIK MALIN	DS	9.5	21	CSD	2-2	205933956204
48	sriharshanallabothu@gmail.com	Nallabothu. Sri Harsha	21KP1A4469	Nallabothu. Anjaneyulu	Nallabothu. Anitha	DS	90.0	21	CSD	2-2	208611060176
49	bhuvanstarpuli@gmail.com	Puli bhuvaneswar	21KP1A4484	Puli mallikarjuna	Puli ramadevi	DS	8.3	21	Data science	2.2	950519207474



```
x.plot.bar(color=['purple','lavender'])
```

OUTPUT:

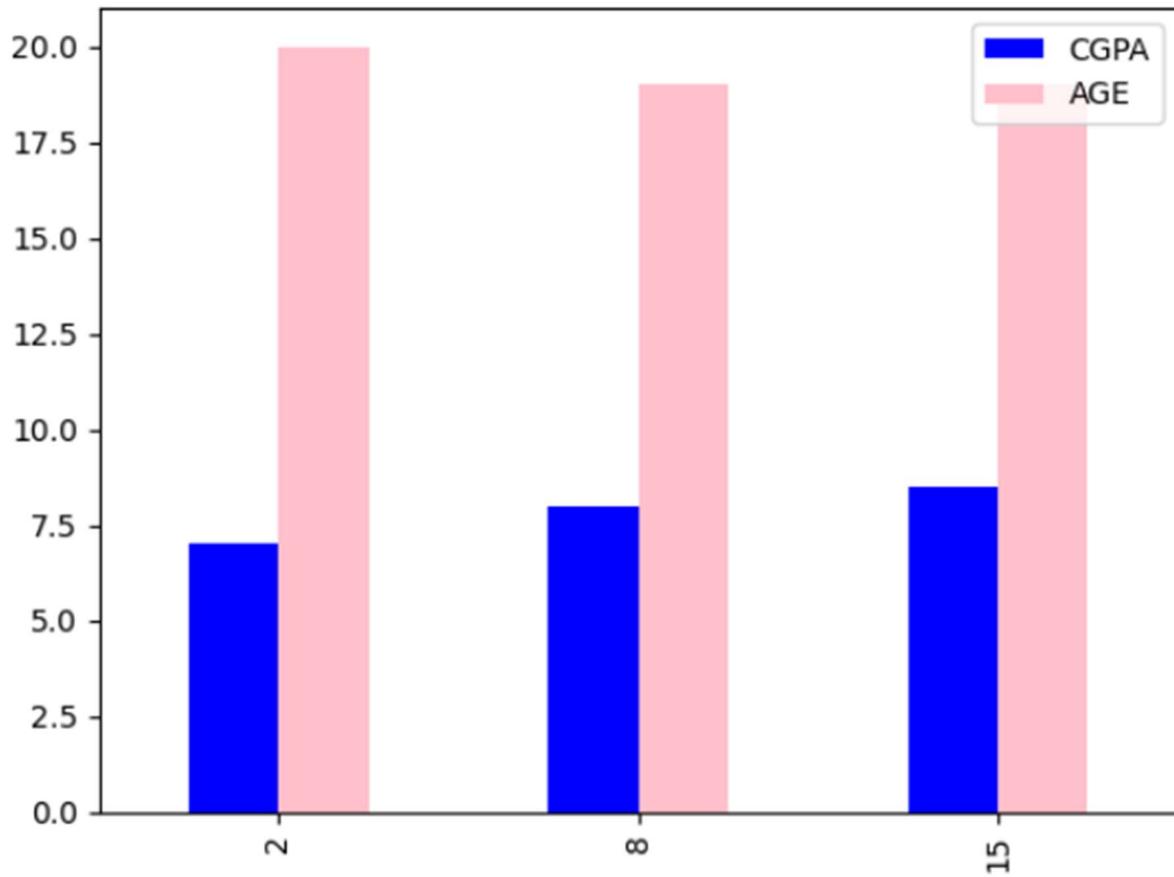
	Gmail	STUDENT NAME	ROLL NUMBER	FATHER NAME	MOTHER NAME	COURSE	CGPA	AGE	BRANCH	SEMISTER	UIDAI NO
0	vennachandana1@gmail.com	Venna Chandana	21KP1A44C5	Venna Ramanareddy	Venna Lakshmidevi	DS	8.0	19	Data science	2-2	636336922883
4	sivajibejanki@gmail.com	B.sivaji	22kp5a4402	B.lakshmaiah	B.veramma	DS	72.0	23	Computer science	2-2	895444662410
5	ramayalabolu123@gmail.com	Y.Ramya	21KP1A44C8	Y.Anjalah	Y Lakshmi Rajyam	DS	80.0	19	CSD	2-2	724574588425
6	charithareddy3914@gmail.com	P.charitha reddy	21KP1A4475	P.Madhava Reddy	P.Kavitha	DS	70.0	19	CSD	2-2	810177524502
7	gayathriolepalli70@gmail.com	POLEPALLI. GAYATHRI	21KP1A4481	POLEPALLI. GURUBRAHMA CHARI	POLEPALLI.SRIDEVI	DS	10.0	19	Data Science	2-2	721819168061
9	sowjanyaathota11@gmail.com	T.SOWJANYA	21KP1A44B6	T.SAMBA SIVA RAO	T.ARUNA KUMARI	DS	8.0	19	DATA SCIENCE	2-2	338666948901
10	tammashahithi1@gmail.com	Tamma Sahithi	21KP1A44B0	Tamma krishna reddy	Tamma Padmavathi	DS	7.7	19	CSE (Data science)	2-2	685349832128
11	podilisarayu6@gmail.com	PODILI LAKSHMISARAYU	21KP1A44B0	PODILI RAMESH	PODILI ADILAKSHMI	DS	7.5	19	DATA SCIENCE	2-2	458689741091
12	shaikkarishma811@gmail.com	shaik karishma	21KP1A4496	SHAIK BAJI	SHAIK KHADRUN	DS	9.0	19	ds	2-2	663048521599
13	kumarvalaparala990@gmail.com	Venkata Aravind Kumar.V	21KP1A44C0	Veerawamyv	Lakshmi.v	DS	98.0	20	Data Science	2-2	510305345824
16	vanukuri.raghava@gmail.com	Raghava	21KP1A44C3	Srinivasa reddy	Jyothi	DS	7.0	19	Data science	2-2	424973081348
17	shaiksakina05@gmail.com	Shaik sameer	21KP1A44A3	Shaik Rahim babu	Shaik Raziya	DS	80.0	20	DS	2-2	529261464345
18	us465249@gmail.com	S sk usman	21KP1A4492	S sk mastan vali	Mahabobba	DS	50.0	19	DS	2-2	568753875709
19	vallu.srinu756939@gmail.com	Vallu Srinu Siva Subrahmanyam	21KP1A44C1	Vallu Srinivasa Rao	Vallu Surya kumari	DS	73.0	20	Computer Science Engineering& Data Science	4	654273218990
20	undelachandraobulareddy@gmail.com	Undela Chandra Obula Reddy	21KP1A44B9	Undela Chinna Obula Reddy	Undela GuruLakshmi	DS	9.2	20	Computer Science	2-2	693621780842
21	farukh.786syed@gmail.com	SYED.FARUKH	21KP1A44A7	SYED.BAJI	SYED.SARTHAJ BEGUM	DS	70.0	19	DS	2-2	764320730678
22	anushayalabolu12@gmail.com	Anusha yalabolu	21KP1A44C7	Chinna anjayya	Lakshmi narayana	DS	75.0	19	CSD	2-2	830785066037
23	madhulathasure9@gmail.com	SURE. MADHULATHA	21KP1A44A4	SURE.VISWANADHAM	SURE.SAI LAKSHMI	DS	10.0	20	Data science	2-2	776486062608
24	thammisettyrakithra9@gmail.com	T.Srikanth	21KP1A44B5	T.vasu	T.jaya	DS	75.0	19	Data Science	2-2	673112205183
25	shaikmobin2002@gmail.com	Shaikmobin	21KP1A4497	shaik karimullah	Shaik rihana	DS	8.8	21	Ds	2-2	90435565468
27	ravuakshaya@gmail.com	Ravu.akshaya	21KP1A4485	Ravu.srinivasrao	Ravu.aruna kumari	DS	80.0	19	Ds	2-2	544305783128
29	ynagasakiukumar@gmail.com	Y Naga Sasi Kumar	21KP1A44D0	Y Rama mohanrao	Y Lalitha	DS	9.2	20	20	2-2	448172496292
30	rahamtunniashai09@gmail.com	Shaik Rahamtunni	21KP1A44A0	Shaik.mahaboobjani	Shaik.munnii	DS	8.0	18	Data science	2-2	406976169351
31	harikabangaram313@gmail.com	Harika	22KP5A4401	A.Subramanyam	A.Dhana Bhagayam	DS	75.0	19	Data science	2-2	574930568520
32	indupriyat2216@gmail.com	Indu Priya Patcha	21KP1A4476	Appa rao Patcha	Renuka Patcha	DS	75.0	18	Data Science	2-2	573041880949
33	bhayyasrisajja2003@gmail.com	Bhavya sri	21KP1A4490	Mohan krishna	Usha rani	DS	70.0	19	Ds	2-2	274736890047
35	bhanuthaniru@gmail.com	Thanirru Bhanu venkata prasad	21KP1A44B2	T sathyaranayana	T rama devi	DS	9.6	19	19	2-2	357228202835
36	nikitharayapat9@gmail.com	Nikhitha Rayapati	21KP1A4487	Rayapati hanumathrao	Rayapati malleswari	DS	80.0	19	Ds	2-2	963360828294
38	abdulabdul2207@gmail.com	Syed.Abdul Rehaman	21KP1A44A6	Syed.Meera Sharif	Bandi.Krishna veni	DS	90.0	20	DS	2-2	347853509974
40	rabbanishai7356@gmail.com	SHAIK RABBANI	21KP1A4499	SHAIK MOHAMMAD HANIF	SHAIK MALIN	DS	9.5	21	CSD	2-2	205933956204
41	reshmayalamanchi@gmail.com	Reshma yalamanchi	21KP1A44C9	Yalamanchi subba Rao	Yalamanchi sunitha	DS	75.0	19	DS	4	742366316353
42	thirivedinagayothi@gmail.com	T. Nagayothi	21KP1A44B7	T. Venkayya	T. Ramanamma	DS	75.0	19	DS	4	330477145525
43	paladugudurga1@gmail.com	P. Durga Sri	21KP1A4473	P. Amareswara rao	P. Seshu Kumari	DS	80.0	20	CSD(Data Science)	2-2	692162661608
44	saidashaik371@gmail.com	SHAIK SAIDA ANWAR BASHA	21KP1A44A2	SHAIK KUDHAN VALI	SHAIK SAIDA HUSSANBI	DS	80.0	20	DATASCIENCE	2-2	466722650274
45	mvkbn1312@gmail.com	R.M.V.K.Brahma Naidu	21KP1A44B9	Yedukondalu	Nirmala	DS	7.0	20	Data science	2-2	2387 7088 9424
46	nrajasambasivarao@gmail.com	Narra Raja Samba Siva Rao	21KP1A4471	Narra SrinivasaRao	Narra Ramadevi	DS	7.5	19	CSD (Data science)	4	835457902826
48	sriharshanallabothu@gmail.com	Nallabothu. Sri Harsha	21KP1A4469	Nallabothu. Anjaneyulu	Nallabothu. Anitha	DS	90.0	21	CSD	2-2	208611060176
49	bhuvanstarpuli@gmail.com	Puli bhuvaneswar	21KP1A4484	Puli mallikarjuna	Puli ramadevi	DS	8.3	21	Data science	2.2	950519207474
50	arundathi0508@gmail.com	PANDA UMA ARUNDATHI	21KP1A4474	PANDA NARAYANA RAO	PANDA PRASANNA LAKSHMI	DS	87.0	19	CSD	2-2	652650486629
51	chinnivignesh144@gmail.com	chinni vignesh teja yadav	21KP1A44C6	Chinni Pratap Kumar	Chinni Bhargavi	DS	80.0	19	Data Science	4th semester	639534870436



```
x1.plot.bar(color=['blue','pink'])
x1
```

OUTPUT:

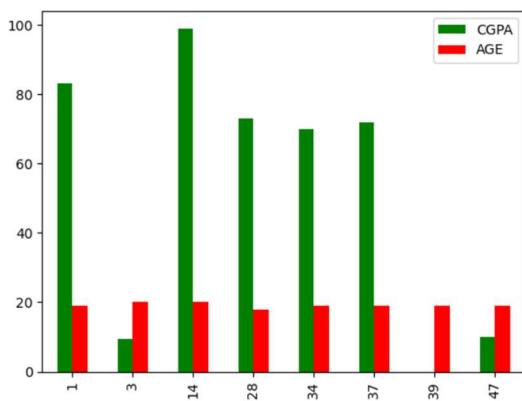
	Gmail	STUDENT NAME	ROLL NUMBER	FATHER NAME	MOTHER NAME	COURSE	CGPA	AGE	BRANCH	SEMISTER	UIDAI NO
2	sravankumar7156@gmail.com	Sravan Kumar	21KP1A4488	Rama Chandra Rao	Venkateswaramma	MECH	7.0	20	mech	4	930319053088
8	syedtasleem07@gmail.com	Syed Tasleem Afroze	21KP1A44A9	Syed Rahiman	Syed Naseema	MECH	8.0	19	DS	2-2	617020354793
15	manu952041@gmail.com	Pachipulusu Manohar	21KP1A4472	Pachipulusu Prasad	Pachipulusu Bhavani	MECH	8.5	19		2-2	559366114423



```
x2.plot.bar(color=['green','red'])  
x2
```

OUTPUT:

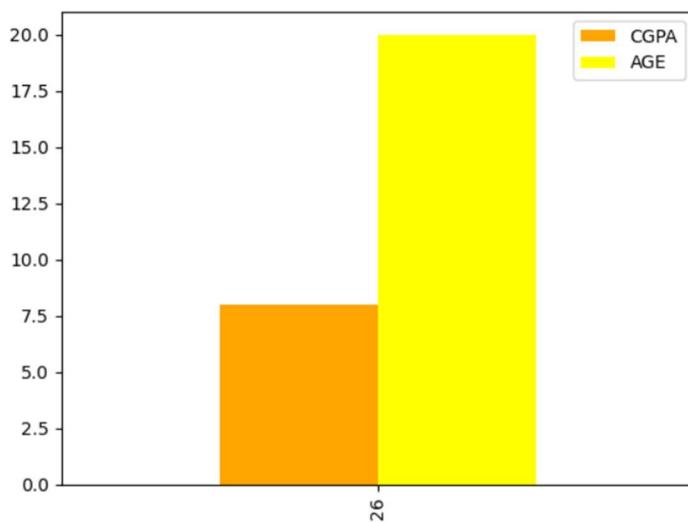
	Gmail	STUDENT NAME	ROLL NUMBER	FATHER NAME	MOTHER NAME	COURSE	CGPA	AGE	BRANCH	SEMISTER	UIDAI NO
1	adilakshmi4765@gmail.com	N.Venkatesh	21KP1A4468	N.Manikya Rao	N.Sri Lakshmi	CSE	83.0	19	CSE-DS	II-II	60251528256
3	sandeepyeruva1124@gmail.com	Yeruva sandeep reddy	21KP1A44D1	Yeruva Ajay Kumar reddy	Yeruva Anjali Devi	CSE	9.5	20	CSE	2-2	576154990146
14	patchachinnu3@gmail.com	Patcha Jaswanth	21KP1A4477	Patcha apparao	Patcha sukanya	CSE	99.0	20	Data science	2-2	744020413963
28	hemasanjushasanikommu828@gmail.com	hema sanjusha	21KP1A4491	musalareddy	sivaparvathi	CSE	73.0	18	cse	2-2	422314863763
34	sudhamshavejendla@gmail.com	Vejendla Devi Sri Sudhamsha	21KP1A44C4	Vejendla Srinivas Rao	Vejendla Laxmi Prasanna	CSE	70.0	19	Cse- Data Science	2_2	587480445790
37	indhupotla123@gmail.com	indhu priya	21KP1A4483	Lakshmarayana	Sujatha	CSE	72.0	19	cse	2-2	52345891620
39	jaffershaik718@gmail.com	Jaffer shaik	21KP1A4495	shaik.LaiLaha	shaik.Ramjan bee	CSE	NaN	19	cse	2nd	912229276699
47	saisairam06@gmail.com	Sairam	21kp1a44b4	Venka subbiah	Ravanamma	CSE	10.0	19	Da	2-2	746109575146



```
x3.plot.bar(color=['orange','yellow'])
x3
```

OUTPUT :

	Gmail	STUDENT NAME	ROLL NUMBER	FATHER NAME	MOTHER NAME	COURSE	CGPA	AGE	BRANCH	SEMISTER	UIDAI NO
26	abdulkhadar6842@gmail.com	Shaik.Abdul Khadar	21KP1A4493	Shaik.Kareem	Shaik.Farjana	ECE	8.0	20	20	2-2	334708289154



Here we count the repeated values

```
y=df2.CGPA.value_counts()
y
```

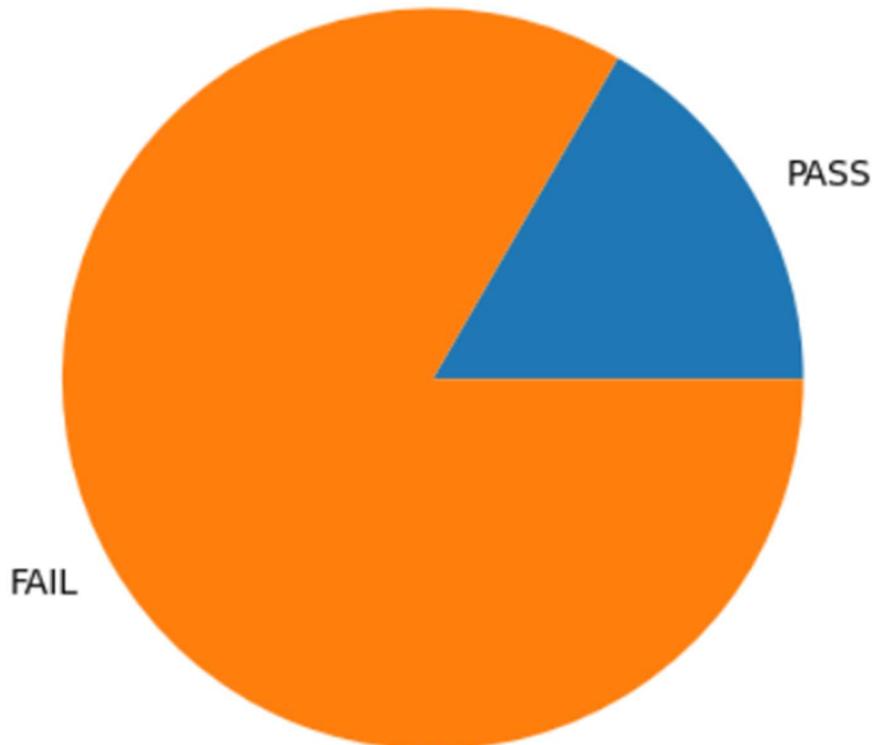
OUTPUT:

```
75.0      5
80.0      4
70.0      4
8.0       3
10.0      2
7.5       2
83.0      1
7.7       1
9.0       1
8.5       1
7.0       1
50.0      1
9.6       1
72.0      1
87.0      1
Name: CGPA, dtype: int64
```

The pass and fail percentage represented in a pie chart

```
z=pd.DataFrame({"Result":['PASS','FAIL'],"vals":[6,30]})
plt.pie(z["vals"],labels=z["Result"])
plt.show()
```

OUTPUT:



```
y1=df1.CGPA.value_counts()  
y1
```

OUTPUT:

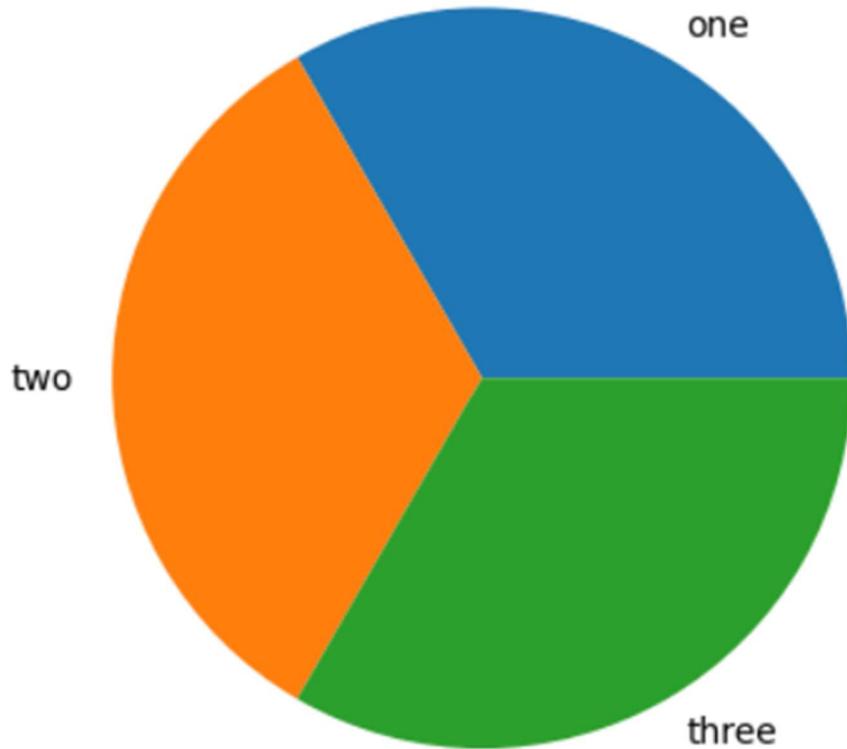
```
73.0      1  
Name: CGPA, dtype: int64
```

Here we give the labels for the integer values

```
z1=plt.pie(y1,labels=['one','two','three'])  
z1
```

OUTPUT:

```
([<matplotlib.patches.Wedge at 0x114e9109300>,
 <matplotlib.patches.Wedge at 0x114e91f3cd0>,
 <matplotlib.patches.Wedge at 0x114e9483490>],
 [Text(0.5499999702695115, 0.9526279613277875, 'one'),
 Text(-1.0999999999999954, -1.0298943258065002e-07, 'two'),
 Text(0.5500001486524352, -0.9526278583383436, 'three')])
```



```
y2=df3.CGPA.value_counts()  
y2
```

OUTPUT:

80.0	3
7.0	2
9.2	2
9.5	1
98.0	1
99.0	1
73.0	1
10.0	1
8.0	1
90.0	1

```
Name: CGPA, dtype: int64
```

It gives the space between the different percentage

```
z2=plt.pie(y2,shadow=True,explode=[0.1,0.1,0.1,0.1,0.1,0.1,0.1,0.1,0.1,0.1])  
z2
```

OUTPUT:



```
t=df.BRANCH.value_counts()  
t
```

OUTPUT:

DS	7
Data science	6
CSD	6
Ds	4
cse	3
Data Science	3
19	2
Data Science	2
20	2
Data science	2
DATA SCIENCE	2
ds	1
CSE (Data science)	1

```
CSE-DS                                1
Computer Science Engineering& Data Science 1
Computer Science                          1
Computer science                         1
CSE                                      1
mech                                     1
Cse- Data Science                        1
CSD(Data Science)                       1
DATASCIENCE                             1
CSD (Data science)                      1
Da                                       1
Name: BRANCH, dtype: int64
```

```
a=t.head()
a
```

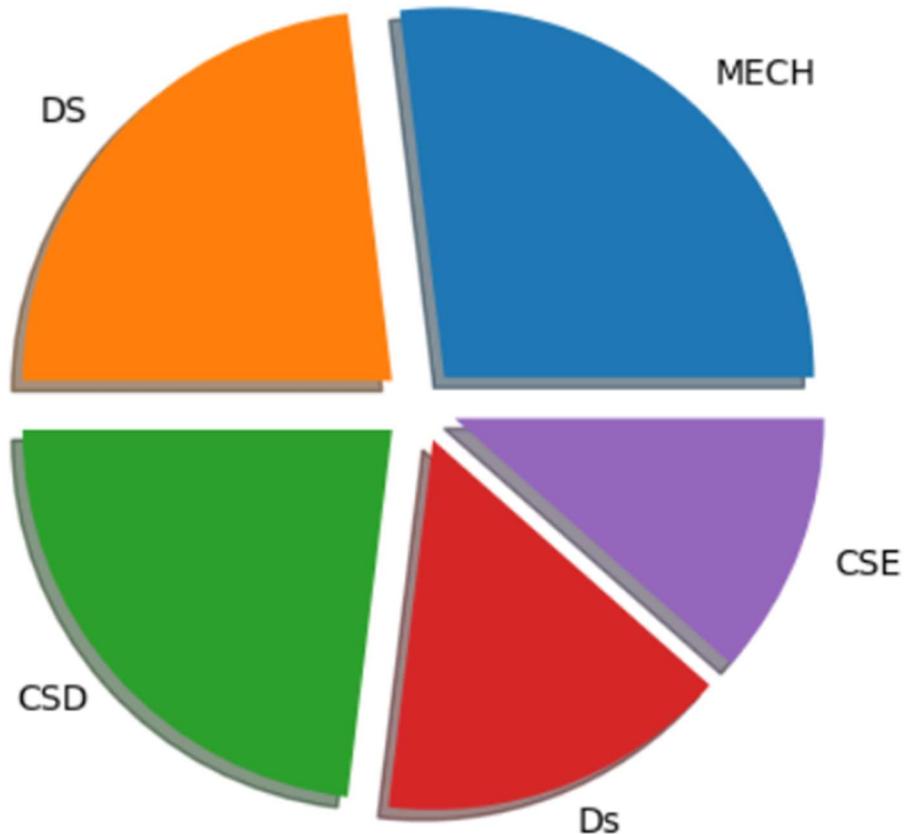
OUTPUT:

```
DS          7
Data science 6
CSD         6
Ds          4
cse         3
Name: BRANCH, dtype: int64
```

It give new labels with wanted space

```
a1=plt.pie(a,labels=['MECH','DS','CSD','Ds','CSE'],shadow=True,explode=[0.1,0.1
,0.1,0.1,0.1])
plt.show()
```

OUTPUT:

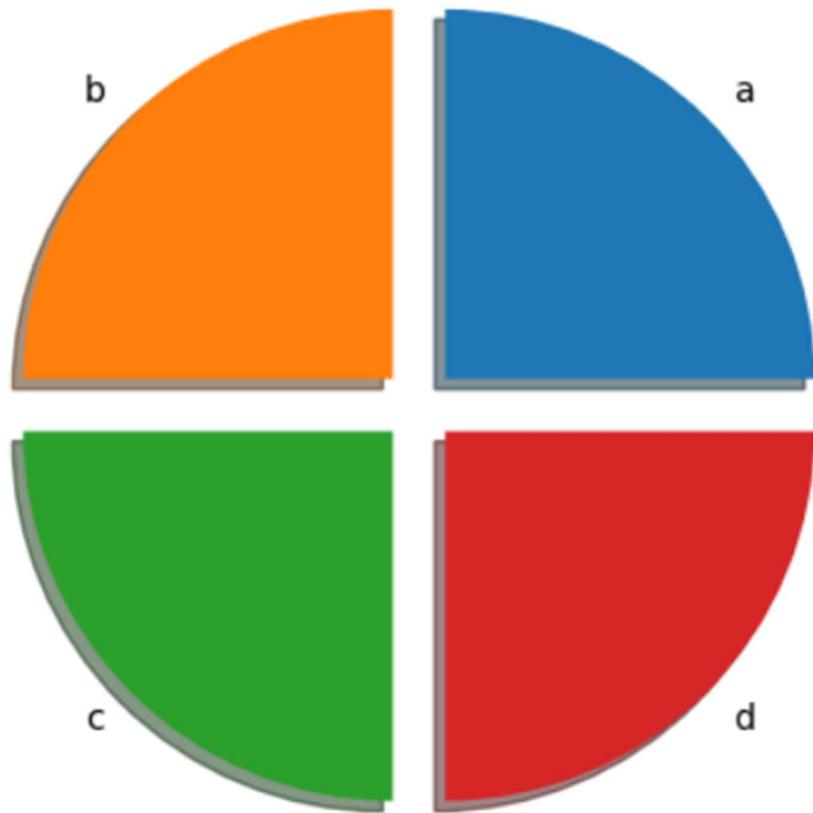


```
y3=df4.CGPA.value_counts()  
y3
```

OUTPUT:
8.8 1
9.5 1
90.0 1
8.3 1
Name: CGPA, dtype: int64

```
z3=plt.pie(y3,labels=['a','b','c','d'],explode=[0.1,0.1,0.1,0.1],  
           shadow=True)  
z3
```

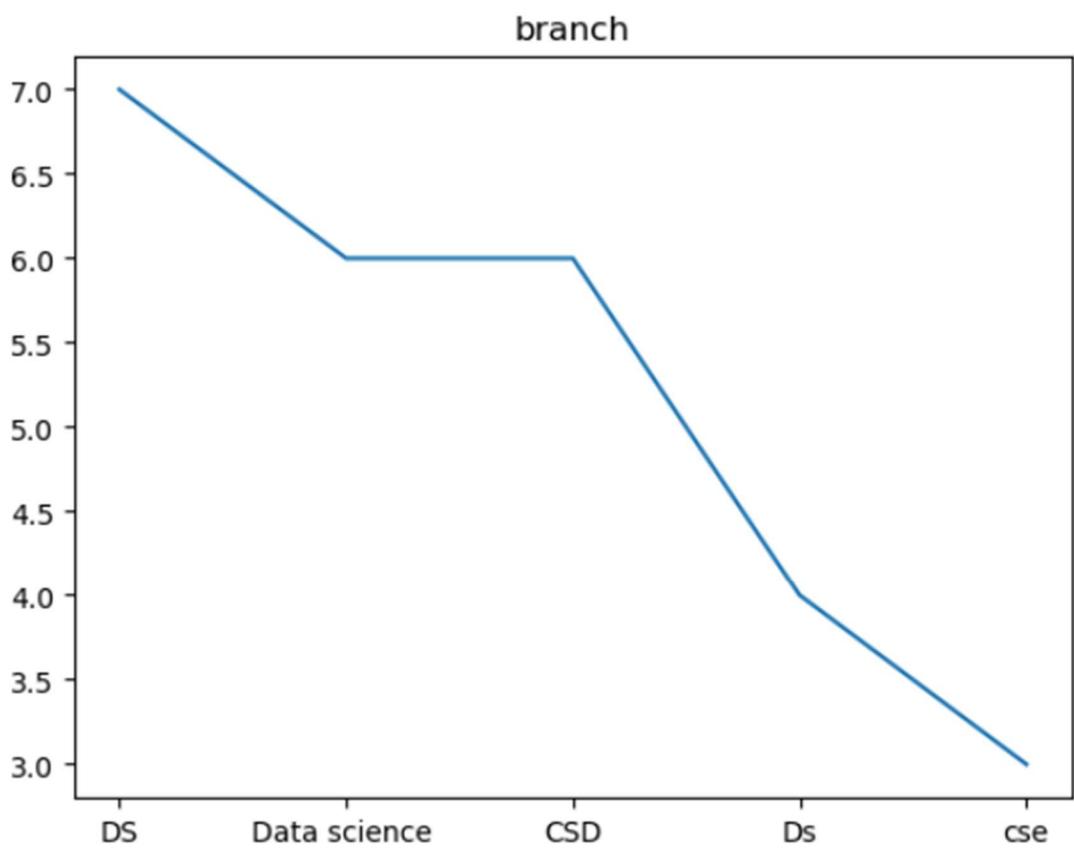
OUTPUT:



We give the labels for the x-axis and y-axis as branch and
datascience

```
plt.plot(a)
plt.title('branch')
plt.show()
```

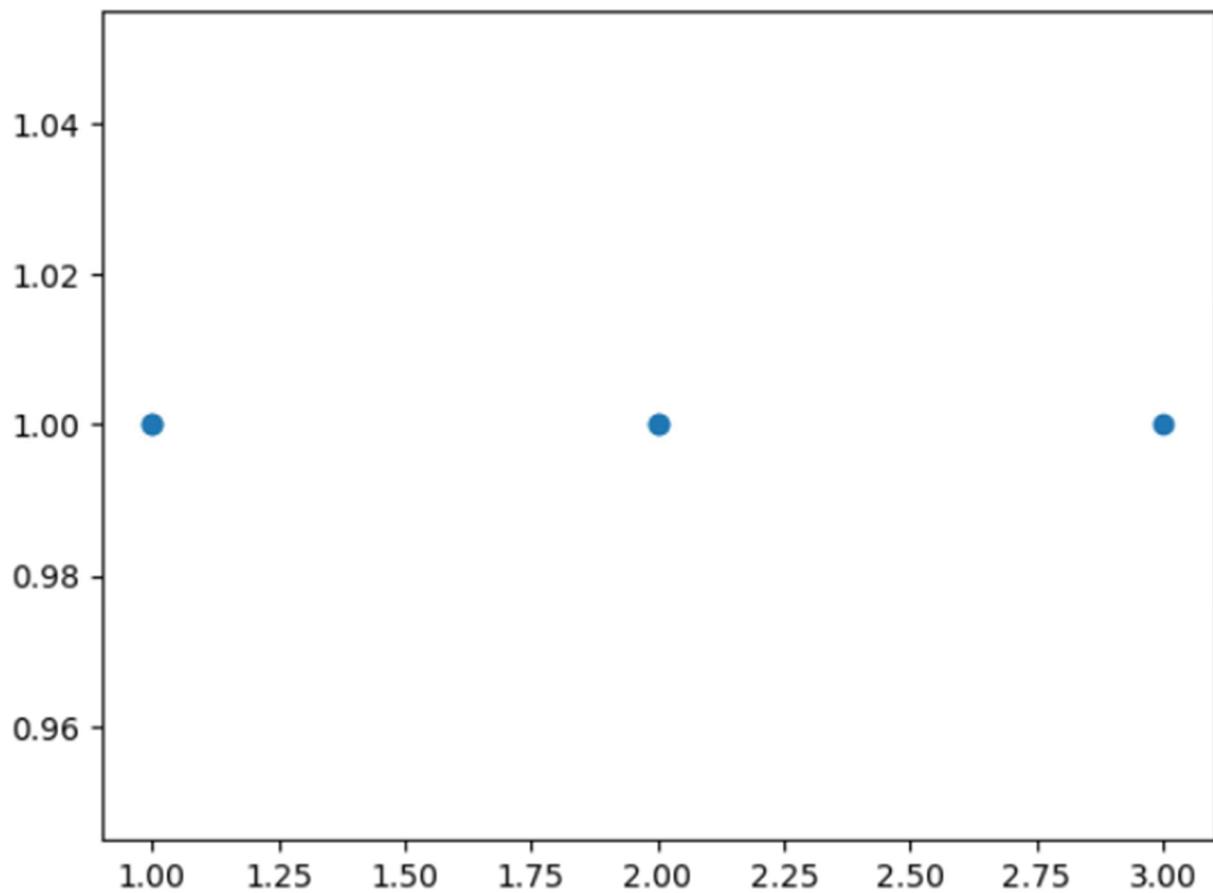
OUTPUT:



```
plt.scatter(y2.head(),y2.tail())
plt.show()
```

OUTPUT:

Scatter plot means we take x-axis & y-axis values and point the data values with dots



SUMMARY

In this project, we aimed to develop **STUDENT DATABASE ANALYSIS USING PYTHON** encompasses various key aspects, including tools, libraries, techniques, and processes involved in the practice of analyzing and deriving insights from data using the python programming language.

Benefits:

- Python is versatile, supporting a board range of data analytics tasks data cleaning to machine learning.
- It helps identify inefficiencies and bottlenecks in processes, allowing organizations to streamline operations and improve productivity.
- Optimizing processes and resources based on data insights, organizations can reduce costs, minimize waste, and maximize profitability.