# A PROJECT

## On

# STUDENT DATABASE ANALYSIS USING PYTHON

**BACHELOR OF TECHNOLOGY**

*By*

**DEPARTMENT OF DATA SCIENCE**

**UNDELA CHANDRA OBULA REDDY**　　　　　　**21KP1A44B9**

*Under the esteemed Guidance of*

## Er. S AKSHAY KUMAR

*CS CODENZ*

**LEARN HERE, LEAD ANYWHERE**

**CS CODENZ**

**GUDIVADA – 521 323, ANDHRA PRADESH., INDIA**

**2022-2023**

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# CS CODENZ



## <u>CERTIFICATE</u>

This is to certify that dissertation entitled **"STUDENT DATABASE ANALYSIS USING PYTHON"** submitted by **UNDELA CHANDRA OBULA REDDY( 21KP1A44B9)** in the partial fulfillment of the requirements for the award of the degree of **BACHELOR OF TECHNOLOGY** from **CS CODENZ** is a record of Bonafide  work carried out by them under my guidance and supervision during the year 2022-2023.

**Signature of the Supervisor**                           **Signature of the HOD**

**Er. S Akshay Kumar**                              **D. Koteswar Rao, M.Tech**

CS CODENZ                                                Associative professor & HOD

                                                            Data science NRIIT

3

# **DECLARATION**

I **UNDELA CHANDRA OBULA REDDY (21KP1A44B9)** declared that the dissertation report entitled **"STUDENT DATABASE ANALYSIS USING PYTHON"** is no more than 1,00,000 words in length includingquotes and exclusive of tables, figures, bibliography, and references.

| Roll No | Name | Signature |
|---------|------|-----------|
| 21KP1A44B9 | UNDELA CHANDRA OBULA REDDY | _____ |

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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# **<u>ABSTRACT</u>**

The Primary objective of this " **STUDENT DATABASE ANALYSIS USING PYTHON**" is to fulfill requirements of large data sets into understandable by using some techniques. It includes data of historical warranty claims and real-time monitoring capabilities. The project also focuses on achieving a high level of accuracy in large data sets.

# REQUIREMENTS

## HARDWARE REQUIREMENTS

- ➢ Personal Computer / Laptop with minimum RAM (16 GB), ROM (512 GB) and Processor(i5)
- ➢ Good latency internet access

## SOFTWARE REQUIREMENTS

- ➢ Basic Search Engine (Google)
- ➢ Google Colaboratory
- ➢ MICROSOFT WORD
- ➢ JUPYTER NOTEBOOK

## FUNCTIONAL REQUIREMENTS

- ➢ Calculation
- ➢ Help in manipulating data and easy process.
- ➢ Graphical representation of Datasets
- ➢ Importing pandas, numpy, matplotlib,

# DESCRIPTION

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

## STEPS OF DATA   ANALYSIS

1. Data Pre processing
2. Dropping a particular row and column
3. Using Describe function
4. Finding null values and sum of null values
5.  Shape of data
6.  Columns of the data
7.  Renaming of columns
8.  Filtering data for CGPA
9.  Replacing the inconsistency values
10. Finding CGPA which is greater than 8.0
11. Finding CGPA in descending order
12. Group by function
13. Changing the age which is in float in int
14. Using Matplotlib plotting a graph

# CODE

## 1) Import the data:

The first step in this is to collect data from students. We collect the data from our class students and merged that data into a huge amount of data.

## 2) COLLECTING THE DATA

**Pandas -** Helps to create a data set and it is also a library in python.

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

**Series –** A series is a method of pandas and labelled data.  Series are nothing but columns in Excel sheet.

**Importing data-**

```python
import pandas as pd
import numpy as np
import matplotlib.pyplot as plt
#reading data from excel fil
df=pd.read_excel('dsdbx.xlsx')
```

*OUTPUT:*

```
    Timestamp                    Email address  \
0   2023-06-13 14:24:58.772         vennachandana1@gmail.com
1   2023-06-13 14:25:15.609         adilakshmi4765@gmail.com
2   2023-06-13 14:25:50.957         sravankumar7156@gmail.com
3   2023-06-13 14:26:01.824         sandeepyeruva1124@gmail.com
4   2023-06-13 14:26:13.848         sivajibejjanki@gmail.com
5   2023-06-13 14:26:23.424         ramyayalabolu123r@gmail.com
6   2023-06-13 14:27:05.330         charithareddy3914@gmail.com
7   2023-06-13 14:27:16.973         gayathripolepalli70@gmail.com
8   2023-06-13 14:27:41.072         syedtasleem07@gmail.com
9   2023-06-13 14:28:10.012         sowjanyathota11@gmail.com
10  2023-06-13 14:28:10.559         tammasahithi1@gmail.com
11  2023-06-13 14:28:34.026         podilisarayu6@gmail.com
12  2023-06-13 14:28:43.092         shaikkarishma811@gmail.com
13  2023-06-13 14:28:57.412         kumarvalaparla890@gmail.com
14  2023-06-13 14:30:05.091         patchachinnu3@gmail.com
15  2023-06-13 14:30:05.577         manu952041@gmail.com
16  2023-06-13 14:30:07.913         vanukuri.raghava@gmail.com
17  2023-06-13 14:30:57.744         shaiksakina05@gmail.com
18  2023-06-13 14:33:16.842         us465249@gmail.com
19  2023-06-13 14:36:46.844         vallu.srinu756939@gmail.com
20  2023-06-13 14:34:05.142         undelachandraobulareddy@gmail.com
21  2023-06-13 14:32:17.269         farukh.786syed@gmail.com
22  2023-06-13 14:33:08.038         anushayalabolu12@gmail.com
23  2023-06-13 14:33:16.147         madhulathasure9@gmail.com
24  2023-06-13 14:34:00.504         thammisettysrikanthraj9@gmail.com
25  2023-06-13 14:34:24.599         shiakmobin2002@gmail.com
26  2023-06-13 14:34:24.985         abdulkhadar6842@gmail.com
27  2023-06-13 14:34:31.602         ravuakshaya@gmail.com
28  2023-06-13 14:34:41.989         hemasanjushasanikommu828@gmail.com
29  2023-06-13 14:34:52.277         ynagasasikumar@gmail.com
30  2023-06-13 14:35:26.194         rahamtunnisashaik09@gmail.com


         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   0.72    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


                           EMAIL  \
0         vennachandana1@gmail.com
1          adilakshmi4765@gmail.com
2         sravankumar7156@gmail.com
3       sandeepyeruva1124@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
11         Podilisarayu6@gmail.com
12       shaikkarishma811@gmail.com
13      Kumarvalaparla890@gmail.com
14          Patchachinnu@gmail.com
15           manu952041@gmail.com
16       vanukuri.raghava@gmail.com
17       Shaiksakina05@gmail.com
18           us465249@gmail.com
19      vallu.srinu756939@gmail.com
20    undelachandraobulareddy@gmail.com
```

```python
#data preprocessing
print(df.info())
print(df.dropna())
print(df.isnull())
(df.fillna(method='bfill'))
(df.fillna(method='ffill'))
```

*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     datetime64[ns]
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: datetime64[ns](1), object(12)
memory usage: 5.4+ KB
None
```

|    | Timestamp | Email address \ |
|----|-----------|-----------------|
| 0  | 2023-06-13 14:24:58.772 | vennachandana1@gmail.com |
| 1  | 2023-06-13 14:25:15.609 | adilakshmi4765@gmail.com |
| 2  | 2023-06-13 14:25:50.957 | sravankumar7156@gmail.com |
| 3  | 2023-06-13 14:26:01.824 | sandeepyeruva1124@gmail.com |
| 4  | 2023-06-13 14:26:13.848 | sivajibejjanki@gmail.com |
| 5  | 2023-06-13 14:26:23.424 | ramyayalabolu123r@gmail.com |
| 6  | 2023-06-13 14:27:05.330 | charithareddy3914@gmail.com |
| 7  | 2023-06-13 14:27:16.973 | gayathripolepalli70@gmail.com |
| 8  | 2023-06-13 14:27:41.072 | syedtasleem07@gmail.com |
| 9  | 2023-06-13 14:28:10.012 | sowjanyathota11@gmail.com |
| 10 | 2023-06-13 14:28:10.559 | tammasahithi1@gmail.com |

| | Timestamp | Email address | STUDENT NAME | ROLL NUMBER | FATHER NAME | MOTHER NAME | COURSE | CGPA | AGE | EMAIL | BRANCH | CURRENT SEMISTER | AADHAAR NO |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 2023-06-13 14:24:58.772 | vennachandana1@gmail.com | Venna Chandana | 21KP1A44C5 | Venna Raman areddy | Venna Lakshmi devi | DS | 8 | 19 | vennachandana1@gmail.com | Data science | 2-2 | 6363 3692 2883 |
| 1 | 2023-06-13 14:25:15. | adilakshmi4765@gmail.com | N.Venkatesh | 21KP1A4468 | N.Manikya Rao | N.Sri Lakshmi | CSE | 83 | 19 | adilakshmi4765@gmail.com | CSE-DS | II-II | 6025 1525 8256 |

| | Timestamp | Email address | STUDENT NAME | ROLL NUMBER | FATHER NAME | MOTHER NAME | COURSE | CGPA | AGE | EMAIL | BRANCH | CURRENT SEMISTER | AADHAAR NO |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 609 | | | | | | | | | | | | |
| 2 | 2023-06-13 14:25:50.957 | sravankumar7156@gmail.com | Sravan Kumar | 21KP1A4488 | Rama Chandra Rao | Venkateswaramma | MECH | 7 | 20 | sravankumar7156@gmail.com | mech | 4 | 9303 1905 3088 |
| 3 | 2023-06-13 14:26:01.824 | sandeepyeruva1124@gmail.com | Yeruva sandeep reddy | 21KP1A44D1 | Yeruva Ajay Kumar reddy | Yeruva Anjali Devi | CSE | 9.5 | 20 | sandeepyeruva1124@gmail.com | CSE | 2-3 | 5761 5499 0146 |
| 4 | 2023-06-13 14:26:13.848 | sivajibejjanki@gmail.com | B.sivaji | 22kp5a4402 | B.lakshmaiah | B.veramma | DS | 0.72 | 23 | sivajibejjanki@gmail.com | Computer science | 2-2 | 8954 4466 2410 |
| 5 | 2023-06-13 14:26:23.424 | ramyayalabolu123r@gmail.com | Y.Ramya | 21KP1A44C8 | Y.Anjaiah | Y Lakshmi Rajyam | DS | 80 | 19 | ramyayalabolu123r@gmail.com | CSD | 2-2 | 7245 7458 8425 |
| 6 | 2023-06-13 14:27:05.330 | charithareddy3914@gmail.com | P.charitha reddy | 21KP1A4475 | P.Madhava Reddy | P.Kavitha | DS | 70 | 19 | charithareddy3914@gmail.com | CSD | 2.2 | 8101 7752 4502 |
| 7 | 2023-06-13 14:27:16.973 | gayathripolepalli70@gmail.com | POLEPALLI. GAYATHRI | 21KP1A4481 | POLEPALLI. GURU BRAHMA CHAR | POLEPALLI.SRI DEVI | DS | 10 | 19 | gayathripolepalli70@gmail.com | Data Science | 2-2 | 7218 1916 8061 |

| | Timestamp | Email address | STUDENT NAME | ROLL NUMBER | FATHER NAME I | MOTHER NAME | COURSE | CGPA | AGE | EMAIL | BRANCH | CURRENT SEMISTER | AADHAAR NO |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 8 | 2023-06-13 14:27:41.072 | syedtasleem07@gmail.com | Syed Tasleem Afroze | 21KP1A44A9 | Syed Rahiman | Syed Naseema | MECH | 8 | 19 | syedtasleem07@gmail.com | DS | 2-2 | 61702035 4793 |
| 9 | 2023-06-13 14:28:10.012 | sowjanyathota11@gmail.com | T.SOWJANYA | 21KP1A44B6 | T.SAMBA SIVA RAO | T.ARUNA KUMAR I | DS | 8 | 19 | sowjanyathota11@gmail.com | DATA SCIENCE | 2-2 | 33866694 8901 |
| 10 | 2023-06-13 14:28:10.559 | tammasahithi1@gmail.com | Tamma Sahithi | 21KP1A44B0 | Tamma krishna reddy | Tamma Padmavathi | DS | 7.7 | 19 | tammasahithi1@gmail.com | CSE (Data science) | 2-2 | 68534983 2128 |

```
     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 Afroze
9        sowjanyathota11@gmail.com                T.SOWJANYA
10       tammasahithi1@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
16       vanukuri.raghava@gmail.com                  Raghava
17       shaiksakina05@gmail.com                Shaik sameer
```

| 18 | us465249@gmail.com | S sk usman |
| 19 | vallu.srinu756939@gmail.com | Vallu Srinu Siva Subrahmanyam |
| 20 | undelachandraobulareddy@gmail.com | Undela Chandra Obula Reddy |

```python
#by using describe function
df1=df["CGPA"].describe()
print(df1)
```

*OUTPUT:*

```
count      52
unique     27
top        80
freq        7
Name: CGPA, dtype: int64
```

```python
#finding null values and sum of null va.
df.Isnull()
```

*OUTPUT:*

| | Email address | STUDENT NAME | ROLL NUMBER | FATHER NAME | MOTHER NAME | COURSE | CGPA | AGE | BRANCH | CURRENT SEMISTER | AADHAAR NO |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **0** | False | False | False | False | False | False | False | False | False | False | False |
| **1** | False | False | False | False | False | False | False | False | False | False | False |
| **2** | False | False | False | False | False | False | False | False | False | False | False |
| **3** | False | False | False | False | False | False | False | False | False | False | False |
| **4** | False | False | False | False | False | False | False | False | False | False | False |
| **5** | False | False | False | False | False | False | False | False | False | False | False |

15

| | Email address | STUDENT NAME | ROLL NUMBER | FATHER NAME | MOTHER NAME | COURSE | CGPA | AGE | BRANCH | CURRENT SEMISTER | AADHAAR NO |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 6 | False | False | False | False | False | False | False | False | False | False | False |
| 7 | False | False | False | False | False | False | False | False | False | False | False |
| 8 | False | False | False | False | False | False | False | False | False | False | False |
| 9 | False | False | False | False | False | False | False | False | False | False | False |
| 10 | False | False | False | False | False | False | False | False | False | False | False |
| 11 | False | False | False | False | False | False | False | False | False | False | False |
| 12 | False | False | False | False | False | False | False | False | False | False | False |
| 13 | False | False | False | False | False | False | False | False | False | False | False |
| 14 | False | False | False | False | False | False | False | False | False | False | False |
| 15 | False | False | False | False | False | False | False | True | False | False | False |
| 16 | False | False | False | False | False | False | False | False | False | False | False |
| 17 | False | False | False | False | False | False | False | False | False | False | False |
| 18 | False | False | False | False | False | False | False | False | False | False | False |
| 19 | False | False | False | False | False | False | False | False | False | False | False |
| 20 | False | False | False | False | False | False | False | False | False | False | False |

```
#finding null values
and sum of null
values
```

*OUTPUT:*

| | STUDENT NAME | ROLL NUMBER | FATHER NAME | MOTHER NAME | COURSE | CGPA | AGE | BRANCH | CURRENT SEMISTER | AADHAAR NO | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Email address** | | | | | | | | | | | |
| **0** | False | False | False | False | False | False | False | False | False | False | False |
| **1** | False | False | False | False | False | False | False | False | False | False | False |
| **2** | False | False | False | False | False | False | False | False | False | False | False |
| **3** | False | False | False | False | False | False | False | False | False | False | False |
| **4** | False | False | False | False | False | False | False | False | False | False | False |
| **5** | False | False | False | False | False | False | False | False | False | False | False |
| **6** | False | False | False | False | False | False | False | False | False | False | False |
| **7** | False | False | False | False | False | False | False | False | False | False | False |
| **8** | False | False | False | False | False | False | False | False | False | False | False |
| **9** | False | False | False | False | False | False | False | False | False | False | False |
| **10** | False | False | False | False | False | False | False | False | False | False | False |
| **11** | False | False | False | False | False | False | False | False | False | False | False |

| Email address | STUDENT NAME | ROLL NUMBER | FATHER NAME | MOTHER NAME | COURSE | CGPA | AGE | BRANCH | CURRENT SEMISTER | AADHAAR NO | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 12 | False | False | False | False | False | False | False | False | False | False | False |
| 13 | False | False | False | False | False | False | False | False | False | False | False |
| 14 | False | False | False | False | False | False | False | False | False | False | False |
| 15 | False | False | False | False | False | False | False | False | True | False | False |
| 16 | False | False | False | False | False | False | False | False | False | False | False |
| 17 | False | False | False | False | False | False | False | False | False | False | False |
| 18 | False | False | False | False | False | False | False | False | False | False | False |
| 19 | False | False | False | False | False | False | False | False | False | False | False |
| 20 | False | False | False | False | False | False | False | False | False | False | False |

-

```
#filling null values using ffill
df.ffill(axis=1,inplace=True)
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             0
CURRENT  SEMISTER    0
AADHAAR  NO           0
dtype:  int64
```

```
#shaping the data frame by using shape()
print("shape of the data frame:")
print(df.shape)
```

**OUTPUT:**

shape  of  the  data  frame:
(52,  11)

```
df.columns
```

**OUTPUT:**

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

```
#renaming the column names
df.rename(columns={'Email address':'Gmail','CURRENT
SEMISTER':'SEMISTER','AADHAR NO':'UIDAI NO'},inplace=True)
print(df.columns)
```

**OUTPUT:**

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

**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  | 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 Afroze |
| 9  | sowjanyathota11@gmail.com | T.SOWJANYA |
| 10 | tammasahithi1@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 |
| 16 | vanukuri.raghava@gmail.com | Raghava |
| 17 | shaiksakina05@gmail.com | Shaik sameer |
| 18 | us465249@gmail.com | S sk usman |
| 19 | vallu.srinu756939@gmail.com | Vallu Srinu Siva Subrahmanyam |
| 20 | undelachandraobulareddy@gmail.com | Undela Chandra Obula Reddy |

|   | 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 |
| 15 | 21KP1A4472 | Pachipulusu Prasad | Pachipulusu Bhavani |
| 16 | 21KP1A44C3 | Srinivasa reddy | Jyothi |
| 17 | 21KP1A44A3 | Shaik Rahim babu | Shaik Raziya |
| 18 | 21KP1A4492 | S sk mastan vali | Mahabobba |
| 19 | 21KP1A44C1 | Vallu Srinivasa Rao | Vallu Surya kumari |
| 20 | 21KP1A44B9 | Undela Chinna Obula Reddy | Undela GuruLakshmi |

| | 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 | 0.72 | 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 | 0.98 | 20 | Data Science |
| 14 | CSE | 0.99 | 20 | Data science |
| 15 | MECH | 8.5 | 19 | 19 |
| 16 | DS | 7 | 19 | Data science |
| 17 | DS | 80 | 20 | DS |
| 18 | DS | 50 | 19 | DS |
| 19 | DS | 73 | 20 | Computer Science Engineering& Data Science |
| 20 | DS | 9.2 | 20 | Computer Science |

| | 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 |
| 15 | 2-2 | 559366114423 |
| 16 | 2-2 | 424973081348 |
| 17 | 2-2 | 529261464345 |
| 18 | 2-2 | 568753875709 |
| 19 | 4 | ************ |
| 20 | 2-2 | 693621780842 |

```
df.replace({'7O':70},inplace=True)
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        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 Afroze
9          sowjanyathota11@gmail.com                       T.SOWJANYA
10          tammasahithi1@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
16        vanukuri.raghava@gmail.com                          Raghava
17          shaiksakina05@gmail.com                     Shaik  sameer
18             us465249@gmail.com                      S  sk  usman
19    vallu.srinu756939@gmail.com   Vallu  Srinu  Siva  Subrahmanyam
20  undelachandraobulareddy@gmail.com     Undela  Chandra  Obula  Reddy
    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
15  21KP1A4472         Pachipulusu Prasad       Pachipulusu Bhavani
16  21KP1A44C3               Srinivasa reddy                     Jyothi
17  21KP1A44A3             Shaik Rahim babu               Shaik Raziya
```

```
18    21KP1A4492                    S  sk  mastan  vali                        Mahabobba
19    21KP1A44C1              Vallu  Srinivasa  Rao            Vallu  Surya  kumari
20    21KP1A44B9        Undela  Chinna  Obula  Reddy          Undela  GuruLakshmi
     COURSE    CGPA    AGE                                            BRANCH    \
0      DS      8.00    19                              Data  science
1      CSE    83.00    19                                  CSE-DS
2      MECH    7.00    20                                      mech
3      CSE     9.50    20                                      CSE
4      DS      0.72    23                          Computer  science
5      DS     80.00    19                                      CSD
6      DS     70.00    19                                      CSD
7      DS     10.00    19                          Data  Science
8      MECH    8.00    19                                          DS
9      DS      8.00    19                          DATA  SCIENCE
10     DS      7.70    19                    CSE  (Data  science)
11     DS      7.50    19                          DATA  SCIENCE
12     DS      9.00    19                                        ds
13     DS      0.98    20                          Data  Science
14     CSE     0.99    20                          Data  science
15     MECH    8.50    19                                            19
16     DS      7.00    19                          Data  science
17     DS     80.00    20                                          DS
18     DS     50.00    19                                          DS
19     DS     73.00    20    Computer  Science  Engineering&  Data  Science
20     DS      9.20    20                          Computer  Science
```
**OUTPUT:**

```
     Gmail                                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  Afroze
9              sowjanyathota11@gmail.com                      T.SOWJANYA
10             tammasahithi1@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
16             vanukuri.raghava@gmail.com                          Raghava
17             shaiksakina05@gmail.com              Shaik  sameer
18                 us465249@gmail.com                  S  sk  usman
19         vallu.srinu756939@gmail.com    Vallu  Srinu  Siva  Subrahmanyam
20     undelachandraobulareddy@gmail.com        Undela  Chandra  Obula  Reddy
```

|    | 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 |
| 15 | 21KP1A4472  | Pachipulusu Prasad | Pachipulusu Bhavani |
| 16 | 21KP1A44C3  | Srinivasa reddy | Jyothi |
| 17 | 21KP1A44A3  | Shaik Rahim babu | Shaik Raziya |
| 18 | 21KP1A4492  | S sk mastan vali | Mahabobba |
| 19 | 21KP1A44C1  | Vallu Srinivasa Rao | Vallu Surya kumari |
| 20 | 21KP1A44B9  | Undela Chinna Obula Reddy | Undela GuruLakshmi |

|    | 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   | 0.72 | 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   | 0.98 | 20 | Data Science |
| 14 | CSE  | 0.99 | 20 | Data science |
| 15 | MECH | 8.5  | 19 | 19 |
| 16 | DS   | 7    | 19 | Data science |
| 17 | DS   | 80   | 20 | DS |
| 18 | DS   | 50   | 19 | DS |
| 19 | DS   | 73   | 20 | Computer Science Engineering& Data Science |
| 20 | DS   | 9.2  | 20 | Computer Science |

|    | SEMISTER | AADHAAR NO |
|----|----------|------------|
| 0  | 2-2      | 636336922883 |

|    | SEMISTER | AADHAAR NO |
|----|----------|------------|
| 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 |
| 16 | 2-2      | 424973081348 |
| 17 | 2-2      | 529261464345 |
| 18 | 2-2      | 568753875709 |
| 19 | 4        | *********** |
| 20 | 2-2      | 693621780842 |

|    | Gmail | 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 Afroze |
| 9  | sowjanyathota11@gmail.com | T.SOWJANYA |
| 10 | tammasahithi1@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 |
| 16 | vanukuri.raghava@gmail.com | Raghava |
| 17 | shaiksakina05@gmail.com | Shaik  sameer |
| 18 | us465249@gmail.com | S  sk usman |
| 19 | vallu.srinu756939@gmail.com | Vallu  Srinu  Siva  Subrahmanyam |
| 20 | undelachandraobulareddy@gmail.com | Undela  Chandra  Obula  Reddy |

|    | 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
15          2-2     559366114423
16          2-2     424973081348
17          2-2     529261464345
18          2-2     568753875709
19           4      ************
20          2-2     693621780842
```

```
df.replace({'7O':70},inplace=True)
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        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 Afroze
9         sowjanyathota11@gmail.com                     T.SOWJANYA
10          tammasahithi1@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
16       vanukuri.raghava@gmail.com                         Raghava
17         shaiksakina05@gmail.com                    Shaik sameer
18            us465249@gmail.com                       S sk usman
19     vallu.srinu756939@gmail.com   Vallu Srinu Siva Subrahmanyam
20   undelachandraobulareddy@gmail.com      Undela Chandra Obula Reddy
      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
15   21KP1A4472          Pachipulusu Prasad         Pachipulusu Bhavani
16   21KP1A44C3               Srinivasa reddy                   Jyothi
17   21KP1A44A3              Shaik Rahim babu              Shaik Raziya
18   21KP1A4492              S sk mastan vali                 Mahabobba
19   21KP1A44C1            Vallu Srinivasa Rao          Vallu Surya kumari
20   21KP1A44B9       Undela Chinna Obula Reddy      Undela GuruLakshmi
```

```
df.info()
```

**OUTPUT:**

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 52 entries, 0 to 51
Data columns (total 11 columns):
 #   Column          Non-Null Count  Dtype
---  ------          --------------  -----
 0   Gmail           52 non-null     object
 1   STUDENT NAME    52 non-null     object
 2   ROLL NUMBER     52 non-null     object
 3   FATHER NAME     52 non-null     object
 4   MOTHER NAME     52 non-null     object
 5   COURSE          52 non-null     object
 6   CGPA            52 non-null     float64
 7   AGE             52 non-null     object
 8   BRANCH          52 non-null     object
 9   SEMISTER        52 non-null     object
 10  AADHAAR NO      52 non-null     object
dtypes: float64(1), object(10)
memory usage: 4.6+ KB
```

```
#filtering the data who got less than or greater than 60% and
arranging those students in ascending order
cgpa=df[(df["CGPA"]>8.0)]
cgpa
```

**OUTPUT:**

| | Gmail | STUDENT NAME | ROLL NUMBER | FATHER NAME | MOTHER NAME | COURSE | CGPA | AGE | BRANCH | SEMISTER | AADHAAR NO |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | adilakshmi4765@gmail.com | N.Venkatesh | 21KP1A4468 | N.Manikya Rao | N.Sri Lakshmi | CSE | 83.0 | 19 | CSE-DS | II-II | 602515258256 |
| 3 | sandeepyeruva1124@gmail.com | Yeruva sandeep reddy | 21KP1A44D1 | Yeruva Ajay Kumar reddy | Yeruva Anjali Devi | CSE | 9.5 | 20 | CSE | 2-3 | 576154990146 |
| 5 | ramyayalabolu12 | Y.Ramy | 21KP | Y.Anjaiah | Y Lakshmi | DS | 80 | 19 | CSD | 2-2 | 72457 |

| Gmail | STUDENT NAME | ROLL NUMBER | FATHER NAME | MOTHER NAME | COURSE | CGPA | AGE | BRANCH | SEMISTER | AADHAAR NO | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 3r@gmail.com | a | 1A44 C8 | | Rajyam | | .0 | | | | 4588425 |
| 6 | charithareddy3914@gmail.com | P.charitha reddy | 21KP 1A44 75 | P.Madhava Reddy | P.Kavitha | DS | 70.0 | 19 | CSD | 2.2 | 8101775245 02 |
| 7 | gayathripolepalli70@gmail.com | POLEPALLI. GAYATHRI | 21KP 1A44 81 | POLEPALLI. GURUBRAHMA CHARI | POLEPALLI.SRIDEVI | DS | 10.0 | 19 | Data Science | 2-2 | 7218191680 61 |
| 12 | shaikkarishma811@gmail.com | shaik karishma | 21KP 1A44 96 | SHAIK BAJI | SHAIK KHADRUN | DS | 9.0 | 19 | ds | 2-2 | 6630485215 99 |
| 15 | manu952041@gmail.com | Pachipulusu Manohar | 21KP 1A44 72 | Pachipulusu Prasad | Pachipulusu Bhavani | MECH | 8.5 | 19 | 19 | 2-2 | 5593661144 23 |
| 17 | shaiksakina05@gmail.com | Shaik sameer | 21KP 1A44 A3 | Shaik Rahim babu | Shaik Raziya | DS | 80.0 | 20 | DS | 2-2 | 5292614643 45 |
| 18 | us465249@gmail.com | S sk usman | 21KP 1A44 92 | S sk mastan vali | Mahabobba | DS | 50.0 | 19 | DS | 2-2 | 5687538757 09 |
| 19 | vallu.srinu756939@gmail.com | Vallu Srinu Siva Subrahmanyam | 21KP 1A44 C1 | Vallu Srinivasa Rao | Vallu Surya kumari | DS | 73.0 | 20 | Computer Science Engineering & Data Science | 4 | *****  ****** |
| 20 | undelachandraobulareddy@gmail.com | Undela Chandra Obula Reddy | 21KP 1A44 B9 | Undela Chinna Obula Reddy | Undela GuruLakshmi | DS | 9.2 | 20 | Computer Science | 2-2 | 6936217808 42 |
| 22 | anushayalabolu12 | Anusha | 21KP | Chinna | Lakshmi | DS | 75 | 19 | CSD | 2-2 | 83078 |

| Gmail | STUDENT NAME | ROLL NUMBER | FATHER NAME | MOTHER NAME | COURSE | CGPA | AGE | BRANCH | SEMISTER | AADHAAR NO |
|---|---|---|---|---|---|---|---|---|---|---|
| @gmail.com | yalabolu | 1A44C7 | anjayya | narayanama | | .0 | | | | 5066037 |
| madhulathasure9@gmail.com | SURE.MADHULATHA | 21KP1A44A4 | SURE.VISWANADHAM | SURE.SAILAKSHMI | DS | 10.0 | 20 | Data science | 2-2 | 7764860626 08 |
| shiakmobin2002@gmail.com | Shaikm obin | 21KP1A4497 | shaik karimullah | Shaik rihana | DS | 8.8 | 21 | Ds | 2.2 | 9043556564 68 |
| ravuakshaya@gmail.com | Ravu.akshaya | 21KP1A4485 | Ravu.srinivasrao | Ravu.aruna kumari | DS | 80.0 | 19 | Ds | 2.2 | 5443057831 28 |

**OUTPUT:**

| | Gmail | STUDENT NAME | ROLL NUMBER | FATHER NAME | MOTHER NAME | COURSE | CGPA | AGE | BRANCH | SEMISTER | AADHAAR NO |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | vennachandana1@gmail.com | Venna Chandana | 21KP1A44C5 | Venna Ramanareddy | Venna Lakshmidevi | DS | 8.00 | 19 | Data science | 2-2 | 636336 922883 |
| 1 | adilakshmi4765@gmail.com | N.Venkatesh | 21KP1A4468 | N.Manikya Rao | N.Sri Lakshmi | CSE | 83.00 | 19 | CSE-DS | II-II | 602515 258256 |
| 2 | sravankumar7156@gmail.com | Sravan Kumar | 21KP1A4488 | Rama Chandra Rao | Venkateswaramma | MECH | 7.00 | 20 | mech | 4 | 930319 053088 |
| 3 | sandeepyeruva1124@gmail.com | Yeruva sandeep reddy | 21KP1A44D1 | Yeruva Ajay Kumar reddy | Yeruva Anjali Devi | CSE | 9.50 | 20 | CSE | 2-3 | 576154 990146 |
| 4 | sivajibejjanki@gmail.com | B.sivaji | 22kp5a4402 | B.lakshmaiah | B.veramma | DS | 0.72 | 23 | Computer science | 2-2 | 895444 662410 |

```
df.nlargest(52,columns=['CGPA'])
```

**OUTPUT:**

| | Gmail | STUDE NT NAME | ROLL NUM BER | FATHE R NAME | MOTH ER NAME | CO URS E | C GP A | A G E | BRANC H | SEMI STER | AADH AAR NO |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 3 8 | abdulabdul22070 @gmail.com | Syed.Ab dul Rehama n | 21KP1 A44A6 | Syed.M eera Sharif | Bandi.Kr ishna veni | DS | 90. 00 | 20 | DS | 2-2 | 347853 509974 |
| 4 8 | sriharshanallaboth u@gmail.com | Nallabot hu. Sri Harsha | 21KP1 A4469 | Nallabot hu. Anjaney ulu | Nallabot hu. Anitha | DS | 90. 00 | 21 | CSD | 2-2 | 208611 060176 |
| 5 0 | arundathi0508@g mail.com | PANDA UMA ARUND ATHI | 21KP1 A4474 | PANDA NARA YANA RAO | PANDA PRASA NNA LAKSH MI | DS | 87. 00 | 19 | CSD | 2-2 | 652650 486629 |
| 1 | adilakshmi4765@g mail.com | N.Venka tesh | 21KP1 A4468 | N.Mani kya Rao | N.Sri Lakshmi | CSE | 83. 00 | 19 | CSE-DS | II-II | 602515 258256 |
| 5 1 | chinnivignesh144 @gmail.com | chinni vignesh teja yadav | 21KP1 A44C6 | Chinni Pratap Kumar | Chinni Bhargavi | DS | 80. 00 | 19 | Data Science | 4th semes ter | 639534 870436 |
| 4 4 | saidashaik371@g mail.com | SHAIK SAIDA ANWA R BASHA | 21KP1 A44A2 | SHAIK KUDH AN VALI | SHAIK SAIDA HUSSA NBI | DS | 80. 00 | 20 | DATAS CIENCE | 2-2 | 466722 650274 |
| 3 6 | nikitharayapati9@ gmail.com | Nikhitha Rayapati | 21KP1 A4487 | Rayapat i hanumat hrao | Rayapati malleswa ri | DS | 80. 00 | 19 | Ds | 2-2 | 963360 828294 |
| 2 7 | ravuakshaya@gma il.com | Ravu.ak shaya | 21KP1 A4485 | Ravu.sri nivasrao | Ravu.aru na kumari | DS | 80. 00 | 19 | Ds | 2.2 | 544305 783128 |
| 4 3 | paladugudurga1@ gmail.com | P. Durga Sri | 21KP1 A4473 | P. Amares wara rao | P. Seshu Kumari | DS | 80. 00 | 20 | CSD(Da ta Science) | 2-2 | 692162 661608 |

13

32

| | Gmail | STUDENT NAME | ROLL NUMBER | FATHER NAME | MOTHER NAME | COURSE | CGPA | AGE | BRANCH | SEMISTER | AADHAAR NO |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 17 | shaiksakina05@gmail.com | Shaik sameer | 21KP1A44A3 | Shaik Rahim babu | Shaik Raziya | DS | 80.00 | 20 | DS | 2-2 | 529261464345 |
| 5 | ramyayalabolu123r@gmail.com | Y.Ramya | 21KP1A44C8 | Y.Anjaiah | Y Lakshmi Rajyam | DS | 80.00 | 19 | CSD | 2-2 | 724574588425 |
| 24 | thammisettysrikanthraj9@gmail.com | T.Srikanth | 21KP1A44B5 | T.vasu | T.jaya | DS | 0.75 | 19 | Data Science | 2-2 | 673112205183 |
| 4 | sivajibejjanki@gmail.com | B.sivaji | 22kp5a4402 | B.lakshmaiah | B.veramma | DS | 0.72 | 23 | Computer science | 2-2 | 895444662410 |
| 21 | farukh.786syed@gmail.com | SYED.FARUKH | 21KP1A44A7 | SYED.BAJI | SYED.SARTHAJ BEGUM | DS | 0.70 | 19 | DS | 2-2 | 764320730678 |

```
df.nsmallest(52,columns=['CGPA'])
```

**OUTPUT:**

| | Gmail | STUDENT NAME | ROLL NUMBER | FATHER NAME | MOTHER NAME | COURSE | CGPA | AGE | BRANCH | SEMISTER | AADHAAR NO |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 31 | harikabangaram313@gmail.com | Harika | 22KP5A4401 | A.Subramanyam | A.Dhana Bhagyam | DS | 75.00 | 19 | Data science | 2-2 | 574930568520 |
| 42 | thiriveedhinagajyothi@gmail.com | T. Nagajyothi | 21KP1A44B7 | T. Venkayya | T. Ramanjamma | DS | 75.00 | 19 | DS | 4 | 330477145525 |
| 41 | reshmayalamanchi@gmail.com | Reshma yalamanchi | 21KP1A44C9 | Yalamanchi subba | Yalamanchi sunitha | DS | 75.00 | 19 | DS | 4 | 742366316353 |

| | Gmail | STUDENT NAME | ROLL NUMBER | FATHER NAME | MOTHER NAME | COURSE | CGPA | AGE | BRANCH | SEMISTER | AADHAAR NO |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Rao | | | | | | |
| 22 | anushayalabolu12@gmail.com | Anusha yalabolu | 21KP1A44C7 | Chinna anjayya | Lakshmi narayanama | DS | 75.00 | 19 | CSD | 2-2 | 830785066037 |
| 17 | shaiksakina05@gmail.com | Shaik sameer | 21KP1A44A3 | Shaik Rahim babu | Shaik Raziya | DS | 80.00 | 20 | DS | 2-2 | 529261464345 |
| 5 | ramyayalabolu123r@gmail.com | Y.Ramya | 21KP1A44C8 | Y.Anjaiah | Y Lakshmi Rajyam | DS | 80.00 | 19 | CSD | 2-2 | 724574588425 |
| 44 | saidashaik371@gmail.com | SHAIK SAIDA ANWAR BASHA | 21KP1A44A2 | SHAIK KUDHAN VALI | SHAIK SAIDA HUSSANBI | DS | 80.00 | 20 | DATASCIENCE | 2-2 | 466722650274 |
| 51 | chinnivignesh144@gmail.com | chinni vignesh teja yadav | 21KP1A44C6 | Chinni Pratap Kumar | Chinni Bhargavi | DS | 80.00 | 19 | Data Science | 4th semester | 639534870436 |
| 36 | nikitharayapati9@gmail.com | Nikitha Rayapati | 21KP1A4487 | Rayapati hanumathrao | Rayapati malleswari | DS | 80.00 | 19 | Ds | 2-2 | 963360828294 |
| 27 | ravuakshaya@gmail.com | Ravu.akshaya | 21KP1A4485 | Ravu.srinivasrao | Ravu.aruna kumari | DS | 80.00 | 19 | Ds | 2.2 | 544305783128 |
| 43 | paladugudurga1@gmail.com | P. Durga Sri | 21KP1A4473 | P. Amareswara rao | P. Seshu Kumari | DS | 80.00 | 20 | CSD(Data Science) | 2-2 | 692162661608 |
| 1 | adilakshmi4765@gmail.com | N.Venkatesh | 21KP1A4468 | N.Manikya Rao | N.Sri Lakshmi | CSE | 83.00 | 19 | CSE-DS | II-II | 602515258256 |
| 50 | arundathi0508@gmail.com | PANDA UMA | 21KP1A4474 | PANDA NARAY | PANDA | DS | 87.00 | 19 | CSD | 2-2 | 652650486629 |

| | Gmail | STUD ENT NAME | ROLL NUMB ER | FATHE R NAME | MOT HER NAME | COU RSE | CG PA | A G E | BRANC H | SEMI STER | AADH AAR NO |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | ARUN DATHI | | ANA RAO | PRAS ANNA LAKS HMI | | | | | | |
| 4 8 | sriharshanallaboth u@gmail.com | Nallabo thu. Sri Harsha | 21KP1 A4469 | Nallabot hu. Anjaney ulu | Nallab othu. Anitha | DS | 90. 00 | 21 | CSD | 2-2 | 208611 060176 |

```python
gr=df.groupby(["AGE",'BRANCH'])
gr.first()
```

**OUTPUT:**

```
                                 Gmail              STUDENT NAME  \
0            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      gayathripolepalli70@gmail.com          POLEPALLI. GAYATHRI
9           sowjanyathota11@gmail.com                  T.SOWJANYA
10           tammasahithi1@gmail.com               Tamma Sahithi
11           podilisarayu6@gmail.com          PODILI LAKSHMISARAYU
12         shaikkarishma811@gmail.com               shaik karishma
13        kumarvalaparla890@gmail.com      Venkata Aravind Kumar.V
16         vanukuri.raghava@gmail.com                      Raghava
17           shaiksakina05@gmail.com                 Shaik sameer
18               us465249@gmail.com                   S sk usman
19       vallu.srinu756939@gmail.com  Vallu Srinu Siva Subrahmanyam
20  undelachandraobulareddy@gmail.com    Undela Chandra Obula Reddy
21          farukh.786syed@gmail.com                 SYED.FARUKH
22        anushayalabolu12@gmail.com              Anusha yalabolu
23         madhulathasure9@gmail.com             SURE. MADHULATHA
24  thammisettysrikanthraj9@gmail.com                  T.Srikanth
25         shiakmobin2002@gmail.com                   Shaikmobin
27            ravuakshaya@gmail.com                 Ravu.akshaya
29          ynagasasikumar@gmail.com            Y Naga Sasi Kumar
30    rahamtunnisashaik09@gmail.com           Shaik Rahamtunnisa
31       harikabangaram313@gmail.com                      Harika
32          indupriya72216@gmail.com            Indu Priya Patcha
```

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

**OUTPUT:**

```
   Gmail                          STUDENT  NAME   \
0          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          gayathripolepalli70@gmail.com          POLEPALLI. GAYATHRI
9          sowjanyathota11@gmail.com                     T.SOWJANYA
10         tammasahithi1@gmail.com                     Tamma Sahithi
11         podilisarayu6@gmail.com          PODILI LAKSHMISARAYU
12         shaikkarishma811@gmail.com                  shaik karishma
13         kumarvalaparla890@gmail.com     Venkata Aravind Kumar.V
16         vanukuri.raghava@gmail.com                        Raghava
17         shaiksakina05@gmail.com                     Shaik sameer
18              us465249@gmail.com                     S  sk usman
19         vallu.srinu756939@gmail.com  Vallu  Srinu Siva Subrahmanyam
20  undelachandraobulareddy@gmail.com        Undela Chandra Obula Reddy


     CGPA  AGE                                    BRANCH       SEMISTER   \
0     8.00  19                            Data  science          2-2
4     0.72  23                        Computer  science          2-2
5    80.00  19                                      CSD          2-2
6    70.00  19                                      CSD          2.2
7    10.00  19                            Data  Science          2-2
9     8.00  19                           DATA  SCIENCE               2-2
10    7.70  19                  CSE (Data  science)          2-2
11    7.50  19                           DATA  SCIENCE               2-2
12    9.00  19                                       ds          2-2
13    0.98  20                            Data  Science          2-2
16    7.00  19                            Data  science          2-2
17   80.00  20                                       DS          2-2
18   50.00  19                                       DS          2-2
19   73.00  20   Computer Science Engineering& Data Science            4
20    9.20  20                        Computer  Science          2-2
21    0.70  19                                       DS          2-2
         AADHAAR  NO
0      636336922883
4      895444662410
5      724574588425
6      810177524502
7      721819168061
9      338666948901
10     685349832128
11     458689741091
12     663048521599
13     510305345824
16     424973081348
17     529261464345
```

| 18 | 568753875709 |
| 19 | *********** |
| 20 | 693621780842 |

```
df.replace(['18h'],18,inplace=True)
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  | 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 Afroze |
| 9  | sowjanyathota11@gmail.com | T.SOWJANYA |
| 10 | tammasahithi1@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 |
| 16 | vanukuri.raghava@gmail.com | Raghava |
| 17 | shaiksakina05@gmail.com | Shaik sameer |
| 18 | us465249@gmail.com | S sk usman |
| 19 | vallu.srinu756939@gmail.com | Vallu Srinu Siva Subrahmanyam |
| 20 | undelachandraobulareddy@gmail.com | Undela Chandra Obula Reddy |

|    | COURSE | CGPA | AGE | BRANCH \ |
|----|--------|------|-----|----------|
| 0  | DS   | 8.00  | 19 | Data science |
| 1  | CSE  | 83.00 | 19 | CSE-DS |
| 2  | MECH | 7.00  | 20 | mech |
| 3  | CSE  | 9.50  | 20 | CSE |
| 4  | DS   | 0.72  | 23 | Computer science |
| 5  | DS   | 80.00 | 19 | CSD |
| 6  | DS   | 70.00 | 19 | CSD |
| 7  | DS   | 10.00 | 19 | Data Science |
| 8  | MECH | 8.00  | 19 | DS |

| 9 | DS | 8.00 | 19 | DATA SCIENCE |
|----|-----|------|----|--------------|
| 10 | DS | 7.70 | 19 | CSE (Data science) |
| 11 | DS | 7.50 | 19 | DATA SCIENCE |
| 12 | DS | 9.00 | 19 | ds |
| 13 | DS | 0.98 | 20 | Data Science |
| 14 | CSE | 0.99 | 20 | Data science |
| 15 | MECH | 8.50 | 19 | 19 |
| 16 | DS | 7.00 | 19 | Data science |
| 17 | DS | 80.00 | 20 | DS |
| 18 | DS | 50.00 | 19 | DS |
| 19 | DS | 73.00 | 20 | Computer Science Engineering& Data Science |
| 20 | DS | 9.20 | 20 | Computer Science |

```
gr_mech=df.groupby('COURSE').get_group('MECH')
gr_mech
```

**OUTPUT:**

Gmail STUDENT NAME ROLL NUMBER FATHER NAME MOTHER NAME COURSE CGPA AGE BRANCH SEMISTER AADHAAR NO 2 sravankumar7156@gmail.com Sravan Kumar 21KP1A4488 Rama Chandra Rao Venkateswaramma MECH 7.0 20 mech 4930319053088 8 syedtasleem07@gmail.com Syed Tasleem Afroze 21KP1A44A9 Syed Rahiman Syed Naseema MECH 8.0 19 DS 2- 2617020354793 15 manu952041@gmail.com Pachipulusu Manohar 21KP1A4472 Pachipulusu Prasad Pachipulusu Bhavani MECH 8.5 19 19 2-2 5593661144 23

```
gr_cse=df.groupby('COURSE').get_group('CSE')
gr_cse
```

| | Gmail | STUDENT NAME | ROLL NUMBER | FATHER NAME | MOTHER NAME | COURSE | CGPA | AGE | BRANCH | SEMISTER | AADHAAR NO |
|----|-------|--------------|-------------|-------------|-------------|--------|------|-----|--------|----------|------------|
| 1 | adilakshmi4765@gmail.com | N.Venkatesh | 21KP1A4468 | N.Manikya Rao | N.Sri Lakshmi | CSE | 83.00 | 19 | CSE-DS | II-II | 602515258256 |
| 3 | sandeepyeruva1124@gmail.com | Yeruva sandeep reddy | 21KP1A44D1 | Yeruva Ajay Kumar reddy | Yeruva Anjali Devi | CSE | 9.50 | 20 | CSE | 2-3 | 576154990146 |
| 14 | patchachinnu3@gmail.com | Patcha Jaswanth | 21KP1A4477 | Patcha apparao | Patcha sukanya | CSE | 0.99 | 20 | Data science | 2-2 | 744020413963 |

34

| Gmail | STUDENT NAME | ROLL NUMBER | FATHER NAME | MOTHER NAME | COURSE | CGPA | AGE | BRANCH | SEMISTER | AADHAAR NO |
|---|---|---|---|---|---|---|---|---|---|---|
| 28 | hemasanjushasanikommu828@gmail.com | hema sanjusha | 21KP1A4491 | musalareddy | sivaparvathi | CSE | 73.00 | 18 | cse | 2-2 | 422314863763 |
| 34 | sudhamshavejendla@gmail.com | Vejendla Devi Sri Sudhamsha | 21KP1A44C4 | Vejendla Srinivass Rao | Vejendla Laxmi Prasanna | CSE | 70.00 | 19 | Cse-Data Science | 2_2 | 587480445790 |
| 37 | indhupotla123@gmail.com | indhu priya | 21KP1A4483 | Lakshmanarayana | Sujatha | CSE | 72.00 | 19 | cse | 2-2 | 524345891620 |
| 39 | jaffershaik718@gmail.com | Jaffer shaik | 21KP1A4495 | shaik.Lai Laha | shaik. Ramjan bee | CSE | 70.00 | 19 | cse | 2nd | 912229276699 |
| 47 | saisairam068@gmail.com | Sairam | 21kp1a44b4 | Venkata subbiah | Ravanamma | CSE | 10.00 | 19 | Da | 2-2 | 746109575146 |

```
age19=df.groupby('AGE').get_group(19)
age19
```

**OUTPUT:**

| Gmail | STUDENT NAME | ROLL NUMBER | FATHER NAME | MOTHER NAME | COURSE | CGPA | AGE | BRANCH | SEMISTER | AADHAAR NO |
|---|---|---|---|---|---|---|---|---|---|---|
| 0 | vennachandana1@gmail.com | Venna Chandana | 21KP1A44C5 | Venna Ramana reddy | Venna Lakshmidevi | DS | 8.00 | 19 | Data science | 2-2 | 6363369228 83 |
| 1 | adilakshmi4765@gmail.com | N.Venkatesh | 21KP1A4468 | N.Manikya Rao | N.Sri Lakshmi | CSE | 83.00 | 19 | CSE-DS | II-II | 6025152582 56 |
| 5 | ramyayalabolu123r@gmail.com | Y.Ramya | 21KP1A44C | Y.Anjaiah | Y Lakshmi Rajyam | DS | 80.0 | 19 | CSD | 2-2 | 7245745884 |

| Gmail | STUDENT NAME | ROLL NUMBER | FATHER NAME | MOTHER NAME | COURSE | CGPA | AGE | BRANCH | SEMISTER | AADHAAR NO | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 8 | | | | 0 | | | | 25 |
| 6 | charithareddy3914@gmail.com | P.charitha reddy | 21KP1A4475 | P.Madhava Reddy | P.Kavitha | DS | 70.00 | 19 | CSD | 2.2 | 8101775245 02 |
| 7 | gayathripolepalli70@gmail.com | POLEPALLI.GAYATHRI | 21KP1A4481 | POLEPALLI.GURUBRAHMA CHARI | POLEPALLI.SRIDEVI | DS | 10.00 | 19 | Data Science | 2-2 | 7218191680 61 |
| 8 | syedtasleem07@gmail.com | Syed Tasleem Afroze | 21KP1A44A9 | Syed Rahiman | Syed Naseema | MECH | 8.00 | 19 | DS | 2-2 | 6170203547 93 |
| 9 | sowjanyathota11@gmail.com | T.SOWJANYA | 21KP1A44B6 | T.SAMBA SIVA RAO | T.ARUNA KUMARI | DS | 8.00 | 19 | DATA SCIENCE | 2-2 | 3386669489 01 |
| 10 | tammasahithi1@gmail.com | Tamma Sahithi | 21KP1A44B0 | Tamma krishna reddy | Tamma Padmavathi | DS | 7.70 | 19 | CSE (Data science) | 2-2 | 6853498321 28 |
| 11 | podilisarayu6@gmail.com | PODILI LAKSHMISARAYU | 21KP1A4480 | PODILI RAMESH | PODILI ADILAKSHMI | DS | 7.50 | 19 | DATA SCIENCE | 2-2 | 4586897410 91 |
| 12 | shaikkarishma811@gmail.com | shaik karishma | 21KP1A4496 | SHAIK BAJI | SHAIK KHADRUN | DS | 9.00 | 19 | ds | 2-2 | 6630485215 99 |
| 15 | manu952041@gmail.com | Pachipulusu Manohar | 21KP1A4472 | Pachipulusu Prasad | Pachipulusu Bhavani | MECH | 8.50 | 19 | 19 | 2-2 | 5593661144 23 |
| 16 | vanukuri.raghava@gmail.com | Raghava | 21KP1A44C3 | Srinivasa reddy | Jyothi | DS | 7.00 | 19 | Data science | 2-2 | 4249730813 48 |
| 18 | us465249@gmail.com | S sk usman | 21KP1A4492 | S sk mastan vali | Mahabobba | DS | 50.00 | 19 | DS | 2-2 | 5687538757 09 |

| Gmail | STUDENT NAME | ROLL NUMBER | FATHER NAME | MOTHER NAME | COURSE | CGPA | AGE | BRANCH | SEMISTER | AADHAAR NO |
|---|---|---|---|---|---|---|---|---|---|---|
| 21 | farukh.786syed@gmail.com | SYED.FARUKH | 21KP1A44A7 | SYED.BAJI | SYED.SARTHAJ BEGUM | DS | 0.70 | 19 | DS | 2-2 | 7643207306 78 |
| 22 | anushayalabolu12@gmail.com | Anusha yalabolu | 21KP1A44C7 | Chinna anjayya | Lakshmi narayanamma | DS | 75.00 | 19 | CSD | 2-2 | 8307850660 37 |
| 24 | thammisettysrikanthraj9@gmail.com | T.Srikanth | 21KP1A44B5 | T.vasu | T.jaya | DS | 0.75 | 19 | Data Science | 2-2 | 6731122051 83 |
| 27 | ravuakshaya@gmail.com | Ravu.akshaya | 21KP1A4485 | Ravu.sri nivasrao | Ravu.aruna kumari | DS | 80.00 | 19 | Ds | 2.2 | 5443057831 28 |
| 31 | harikabangaram313@gmail.com | Harika | 22KP5A4401 | A.Subra manyam | A.Dhana Bhagyam | DS | 75.00 | 19 | Data science | 2-2 | 5749305685 20 |
| 33 | bhavyasrisajja2003@gmail.com | Bhavya sri | 21KP1A4490 | Mohan krishna | Usha rani | DS | 70.00 | 19 | Ds | 2-2 | 2747368900 47 |
| 34 | sudhamshavejendla@gmail.com | Vejendla Devi Sri Sudhamsha | 21KP1A44C4 | Vejendla Srinivas Rao | Vejendla Laxmi Prasanna | CSE | 70.00 | 19 | Cse-Data Science | 2_2 | 5874804457 90 |

```python
age20=df.groupby('AGE').get_group(20)
```

**OUTPUT:**

| Gmail | STUDENT NAME | ROLL NUMBER | FATHER NAME | MOTHER NAME | COURSE | CGPA | AGE | BRANCH | SEMISTER | AADHAAR NO |
|---|---|---|---|---|---|---|---|---|---|---|
| 2 | sravankumar7156@gmail.com | Sravan Kumar | 21KP1A4488 | Rama Chandra Rao | Venkates waramma | MECH | 7.00 | 20 | mech | 4 | 930319 053088 |

37

| | Gmail | STUDENT NAME | ROLL NUMBER | FATHER NAME | MOTHER NAME | COURSE | CGPA | AGE | BRANCH | SEMISTER | AADHAAR NO |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 3 | sandeepyeruva1124@gmail.com | Yeruva sandeep reddy | 21KP1A44D1 | Yeruva Ajay Kumar reddy | Yeruva Anjali Devi | CSE | 9.50 | 20 | CSE | 2-3 | 576154990146 |
| 13 | kumarvalaparla890@gmail.com | Venkata Aravind Kumar.V | 21KP1A44C0 | Veeraswamy.v | Lakshmi.v | DS | 0.98 | 20 | Data Science | 2-2 | 510305345824 |
| 14 | patchachinnu3@gmail.com | Patcha Jaswanth | 21KP1A4477 | Patcha apparao | Patcha sukanya | CSE | 0.99 | 20 | Data science | 2-2 | 744020413963 |
| 17 | shaiksakina05@gmail.com | Shaik sameer | 21KP1A44A3 | Shaik Rahim babu | Shaik Raziya | DS | 80.00 | 20 | DS | 2-2 | 529261464345 |
| 19 | vallu.srinu756939@gmail.com | Vallu Srinu Siva Subr | | | | | | | | | |

```
gr_ds=df.groupby('COURSE').get_group('DS')
gr_ds
```

**OUTPUT:**

| | Gmail | STUDENT NAME | ROLL NUMBER | FATHER NAME | MOTHER NAME | COURSE | CGPA | AGE | BRANCH | SEMISTER | | AADHAAR NO |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | vennachandana1@gmail.com | Venna Chandana | 21KP1A44C5 | Venna Ramanareddy | Venna Lakshmidevi | DS | 8.00 | 19 | Data science | 2-2 | 636336922883 |
| 4 | sivajibejjanki@gmail.com | B.sivaji | 22kp5a4402 | B.lakshmaiah | B.veramma | DS | 0.72 | 23 | Computer science | 2-2 | 895444662410 |
| 5 | ramyayalabolu123r@gmail.com | Y.Ramya | 21KP1A44C8 | Y.Anjaiah | Y Lakshmi Rajyam | DS | 80.00 | 19 | CSD | 2-2 | 724574588425 |
| 6 | charithareddy3914@gmail.com | P.charitha reddy | 21KP1A4475 | P.Madhava Reddy | P.Kavitha | DS | 70.00 | 19 | CSD | 2.2 | 810177524502 |
| 7 | gayathripolepalli70@gmail.com | POLEPALLI.GAYATHRI | 21KP1A4481 | POLEPALLI.GURUBRAHMACHARI | POLEPALLI.SRIDEVI | DS | 10.00 | 19 | Data Science | 2-2 | 721819168061 |
| 9 | sowjanyathota11@gmail.com | T.SOWJANYA | 21KP1A44B6 | T.SAMBA SIVA RAO | T.ARUNA KUMARI | DS | 8.00 | 19 | DATA SCIENCE | 2-2 | 338666948901 |
| 10 | tammasahithi1@gmail.com | Tamma Sahithi | 21KP1A44B0 | Tamma krishna reddy | Tamma Padmavathi | DS | 7.70 | 19 | CSE (Data science) | 2-2 | 685349832128 |
| 11 | podilisarayu6@gmail.com | PODILI LAKSHMISARAYU | 21KP1A4480 | PODILI RAMESH | PODILI ADILAKSHMI | DS | 7.50 | 19 | DATA SCIENCE | 2-2 | 458689741091 |
| 12 | shaikkarishma811@gmail.com | shaik karishma | 21KP1A4496 | SHAIK BAJI | SHAIK KHADRUN | DS | 9.00 | 19 | ds | 2-2 | 663048521599 |
| 13 | kumarvalaparla890@gmail.com | Venkata Aravind Kumar.V | 21KP1A44C0 | Veeraswamy.v | Lakshmi.v | DS | 0.98 | 20 | Data Science | 2-2 | 510305345824 |
| 16 | vanukuri.raghava | Raghava | 21KP | Srinivasa | Jyothi | DS | 7. | 19 | Data | 2-2 | 42497 |

| Gmail | STUDENT NAME | ROLL NUMBER | FATHER NAME | MOTHER NAME | COURSE | CGPA | AGE | BRANCH | SEMISTER | | AADHAAR NO |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | @gmail.com | | 1A44C3 | reddy | | | 00 | | science | | 3081348 |
| 17 | shaiksakina05@gmail.com | Shaik sameer | 21KP1A44A3 | Shaik Rahim babu | Shaik Raziya | DS | 80.00 | 20 | DS | 2-2 | 5292614643 45 |
| 18 | us465249@gmail.com | S sk usman | 21KP1A4492 | S sk mastan vali | Mahabobba | DS | 50.00 | 19 | DS | 2-2 | 5687538757 09 |
| 19 | vallu.srinu756939@gmail.com | Vallu Srinu Siva Subrahmanyam | 21KP1A44C1 | Vallu Srinivasa Rao | Vallu Surya kumari | DS | 73.00 | 20 | Computer Science Engineering & Data Science | 4 | ************* |
| 20 | undelachandraobulareddy@gmail.com | Undela Chandra Obula Reddy | 21KP1A44B9 | Undela Chinna Obula Reddy | Undela GuruLakshmi | DS | 9.20 | 20 | Computer Science | 2-2 | 6936217808 42 |
| 21 | farukh.786syed@gmail.com | SYED.FARUKH | 21KP1A44A7 | SYED.BAJI | SYED.SARTHAJ BEGUM | DS | 0.70 | 19 | DS | 2-2 | 7643207306 78 |
| 22 | anushayalabolu12@gmail.com | Anusha yalabolu | 21KP1A44C7 | Chinna anjayya | Lakshmi narayanama | DS | 75.00 | 19 | CSD | 2-2 | 8307850660 37 |
| 23 | madhulathasure9@gmail.com | SURE.MADHULATHA | 21KP1A44A4 | SURE.VISWANADHAM | SURE.SAILAKSHMI | DS | 10.00 | 20 | Data science | 2-2 | 7764860626 08 |
| 24 | thammisettysrikanthraj9@gmail.com | T.Srikanth | 21KP1A44B5 | T.vasu | T.jaya | DS | 0.75 | 19 | Data Science | 2-2 | 6731122051 83 |
| 25 | shiakmobin2002@gmail.com | Shaikmobin | 21KP1A4497 | shaik karimullah | Shaik rihana | DS | 8.80 | 21 | Ds | 2.2 | 9043556564 68 |

| Gmail | STUDENT NAME | ROLL NUMBER | FATHER NAME | MOTHER NAME | COURSE | CGPA | AGE | BRANCH | SEMISTER | AADHAAR NO |
|---|---|---|---|---|---|---|---|---|---|---|
| 27 | ravuakshaya@gmail.com | Ravu.akshaya | 21KP1A4485 | Ravu.srinivasrao | Ravu.aruna kumari | DS | 80.00 | 19 | Ds | 2.2 | 544305783128 |
| 29 | ynagasasikumar@gmail.com | Y Naga Sasi Kumar | 21KP1A44D0 | Y Rama mohanarao | Y Lalitha | DS | 9.20 | 20 | 20 | 2-2 | 448172496292 |
| 30 | rahamtunnisashaik09@gmail.com | Shaik Rahamtunnisa | 21KP1A44A0 | Shaik.mahaboobjani | Shaik.munni | DS | 8.00 | 18 | Data science | 2-2 | 406976169351 |
| 31 | harikabangaram313@gmail.com | Harika | 22KP5A4401 | A.Subramanyam | A.Dhana Bhagyam | DS | 75.00 | 19 | Data science | 2-2 | 574930568520 |
| 32 | indupriya72216@gmail.com | Indu Priya Patcha | 21KP1A4476 | Appa rao Patcha | Renuka Patcha | DS | 0.75 | 18 | Data Science | 2-2 | 573041880949 |
| 33 | bhavyasrisajja2003@gmail.com | Bhavya sri | 21KP1A4490 | Mohan krishna | Usha rani | DS | 70.00 | 19 | Ds | 2-2 | 274736890047 |
| 35 | bhanuthanirru@gmail.com | Thanirru Bhanu venkata prasad | 21KP1A44B2 | T sathyanarayana | T rama devi | DS | 9.60 | 19 | 19 | 2-2 | 357228202835 |
| 36 | nikitharayapati9@gmail.com | Nikhitha Rayapati | 21KP1A4487 | Rayapati hanumathrao | Rayapati malleswari | DS | 80.00 | 19 | Ds | 2-2 | 963360828294 |
| 38 | abdulabdul22070@gmail.com | Syed.Abdul Rehaman | 21KP1A44A6 | Syed.Meera Sharif | Bandi.Krishna veni | DS | 90.00 | 20 | DS | 2-2 | 347853509974 |
| 40 | rabbanishaik7356@gmail.com | SHAIK RABBANI | 21KP1A4499 | SHAIK MOHAMMAD HANIF | SHAIK MALIN | DS | 9.50 | 21 | CSD | 2-2 | 205933956204 |
| 41 | reshmayalamanchi@gmail.com | Reshma yalamanchi | 21KP1A44C9 | Yalamanchi subba Rao | Yalamanchi sunitha | DS | 75.00 | 19 | DS | 4 | 742366316353 |
| 42 | thiriveedhinagajyothi@gmail.com | T. Nagajyot | 21KP1A44 | T. Venkayya | T. Ramanjam | DS | 75.0 | 19 | DS | 4 | 3304771455 |

| G mail | STUDENT NAME | ROLL NUMBER | FATHER NAME | MOTHER NAME | COURSE | CGPA | AGE | BRANCH | SEMISTER | AADHAAR NO |
|---|---|---|---|---|---|---|---|---|---|---|
| hi | | B7 | | | ma | | 0 | | | 25 |

```
age18=df.groupby('AGE').get_group(18)
age18
```

**OUTPUT:**

GmailSTUDENT NAMEROLL NUMBERFATHER NAMEMOTHER NAMECOURSECGPAAGEBRANCHSEMISTERAADHAAR NO28hemasanjushasanikommu828@gmail.comhema sanjusha21KP1A4491musalareddysivaparvathiCSE73.0018cse2-242231486376330rahamtunnisashaik09@gmail.comShaik Rahamtunnisa21KP1A44A0Shaik.mahaboobjaniShaik.munniDS8.0018Data science2-240697616935132indupriya72216@gmail.comIndu Priya Patcha21KP1A4476Appa rao PatchaRenuka PatchaDS0.7518Data Science2-2573041880949

```
age18.plot.bar(color=['blue','yellow','green'])
age18
```

**OUTPUT:**

| Gmail | STUDENT NAME | ROLL NUMBER | FATHER NAME | MOTHER NAME | COURSE | CGPA | AGE | BRANCH | SEMISTER | AADHAAR NO |
|---|---|---|---|---|---|---|---|---|---|---|
| 28 | hemasanjushasanikommu828@gmail.com | hema sanjusha | 21KP1A4491 | musalareddy | sivaparvathi | CSE | 73.00 | 18 | cse | 2-2 | 422314863763 |
| 30 | rahamtunnisashaik09@gmail.com | Shaik Rahamtunnisa | 21KP1A44A0 | Shaik.mahaboobjani | Shaik.munni | DS | 8.00 | 18 | Data science | 2-2 | 406976169351 |
| 32 | indupriya72216@gmail.com | Indu Priya Patcha | 21KP1A4476 | Appa rao Patcha | Renuka Patcha | DS | 0.75 | 18 | Data Science | 2-2 | 573041880949 |

28    30    32

**VISUALIZING THE BAR GRAPH OF AGE OF 19:**

## BAR GRAPH:

Here we are plotting a bar graph by using some colors like blue,yellow,red.
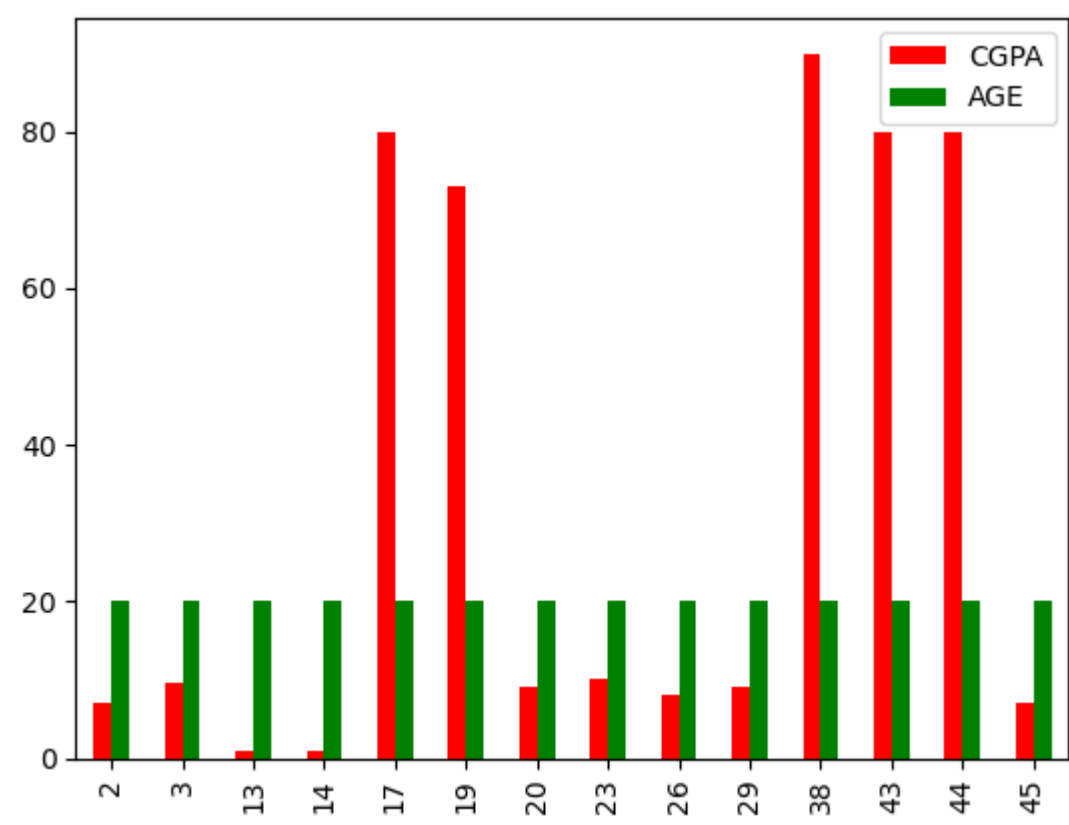By using these colors we are plotting a bar graph by using the data.

```
age19.plot.bar(color=['yellow','blue','red'])
age19
```

**OUTPUT:**

| | G m ail | STUDENT NAME | ROLL NUMBE R | FATH ER NAM E | MOTH ER NAME | COURSE | C GP A | A G E | BRA NC H | SEM ISTE R | AAD HAA R NO | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **0** | vennachandana1 @gmail.com | Venna Chandana | 21KP1 A44C 5 | Venna Ramana reddy | Venna Lakshmide vi | DS | 8. 00 | 19 | Data scienc e | 2-2 | 63633 69228 83 | |
| **1** | adilakshmi4765@ gmail.com | N.Venkat esh | 21KP1 A4468 | N.Mani kya Rao | N.Sri Lakshmi | CS E | 83 .0 0 | 19 | CSE-DS | II-II | 60251 52582 56 | |
| **5** | ramyayalabolu12 3r@gmail.com | Y.Ramya | 21KP1 A44C 8 | Y.Anjai ah | Y Lakshmi Rajyam | DS | 80 .0 0 | 19 | CSD | 2-2 | 72457 45884 25 | |
| **6** | charithareddy391 4@gmail.com | P.charitha reddy | 21KP1 A4475 | P.Madh ava Reddy | P.Kavitha | DS | 70 .0 0 | 19 | CSD | 2.2 | 81017 75245 02 | |
| **7** | gayathripolepalli7 0@gmail.com | POLEPA LLI. GAYATH RI | 21KP1 A4481 | POLEP ALLI. GURUB RAHM A CHARI | POLEPAL LI.SRIDE VI | DS | 10 .0 0 | 19 | Data Scien ce | 2-2 | 72181 91680 61 | |
| **8** | syedtasleem07@g mail.com | Syed Tasleem Afroze | 21KP1 A44A 9 | Syed Rahima n | Syed Naseema | M EC H | 8. 00 | 19 | DS | 2-2 | 61702 03547 93 | |
| **9** | sowjanyathota11 @gmail.com | T.SOWJA NYA | 21KP1 A44B 6 | T.SAM BA SIVA RAO | T.ARUNA KUMARI | DS | 8. 00 | 19 | DAT A SCIE NCE | 2-2 | 33866 69489 01 | |
| **10** | tammasahithi1@g mail.com | Tamma Sahithi | 21KP1 A44B 0 | Tamma krishna reddy | Tamma Padmavath i | DS | 7. 70 | 19 | CSE (Data scienc e) | 2-2 | 68534 98321 28 | |

| Gmail | STUDENT NAME | ROLL NUMBER | FATHER NAME | MOTHER NAME | COURSE | CGPA | AGE | BRANCH | SEMISTER | AADHAAR NO | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 11 | podilisarayu6@gmail.com | PODILI LAKSHMISARAYU | 21KP1A4480 | PODILI RAMESH | PODILI ADILAKSHMI | DS | 7.50 | 19 | DATA SCIENCE | 2-2 | 458689741091 |
| 12 | shaikkarishma811@gmail.com | shaik karishma | 21KP1A4496 | SHAIK BAJI | SHAIK KHADRUN | DS | 9.00 | 19 | ds | 2-2 | 663048521599 |
| 15 | manu952041@gmail.com | Pachipulusu Manohar | 21KP1A4472 | Pachipulusu Prasad | Pachipulusu Bhavani | MECH | 8.50 | 19 | 19 | 2-2 | 559366114423 |
| 16 | vanukuri.raghava@gmail.com | Raghava | 21KP1A44C3 | Srinivasa reddy | Jyothi | DS | 7.00 | 19 | Data science | 2-2 | 424973081348 |
| 18 | us465249@gmail.com | S sk usman | 21KP1A4492 | S sk mastanvali | Mahabobba | DS | 50.00 | 19 | DS | 2-2 | 568753875709 |
| 21 | farukh.786syed@gmail.com | SYED.FARUKH | 21KP1A44A7 | SYED.BAJI | SYED.SARTHAJ BEGUM | DS | 0.70 | 19 | DS | 2-2 | 764320730678 |
| 22 | anushayalabolu12@gmail.com | Anusha yalabolu | 21KP1A44C7 | Chinna anjayya | Lakshmi narayanama | DS | 75.00 | 19 | CSD | 2-2 | 830785066037 |
| 24 | thammisettysrikanthraj9@gmail.com | T.Srikanth | 21KP1A44B5 | T.vasu | T.jaya | DS | 0.75 | 19 | Data Science | 2-2 | 673112205183 |
| 27 | ravuakshaya@gmail.com | Ravu.akshaya | 21KP1A4485 | Ravu.srinivasrao | Ravu.aruna kumari | DS | 80.00 | 19 | Ds | 2.2 | 544305783128 |
| 31 | harikabangaram313@gmail.com | Harika | 22KP5A4401 | A.Subramanyam | A.Dhana Bhagyam | DS | 75.00 | 19 | Data science | 2-2 | 574930568520 |
| 33 | bhavyasrisajja2003@gmail.com | Bhavya sri | 21KP1A4490 | Mohan krishna | Usha rani | DS | 70.00 | 19 | Ds | 2-2 | 274736890047 |

**VISUALIZING THE BAR GRAPH OF AGE OF 20:**
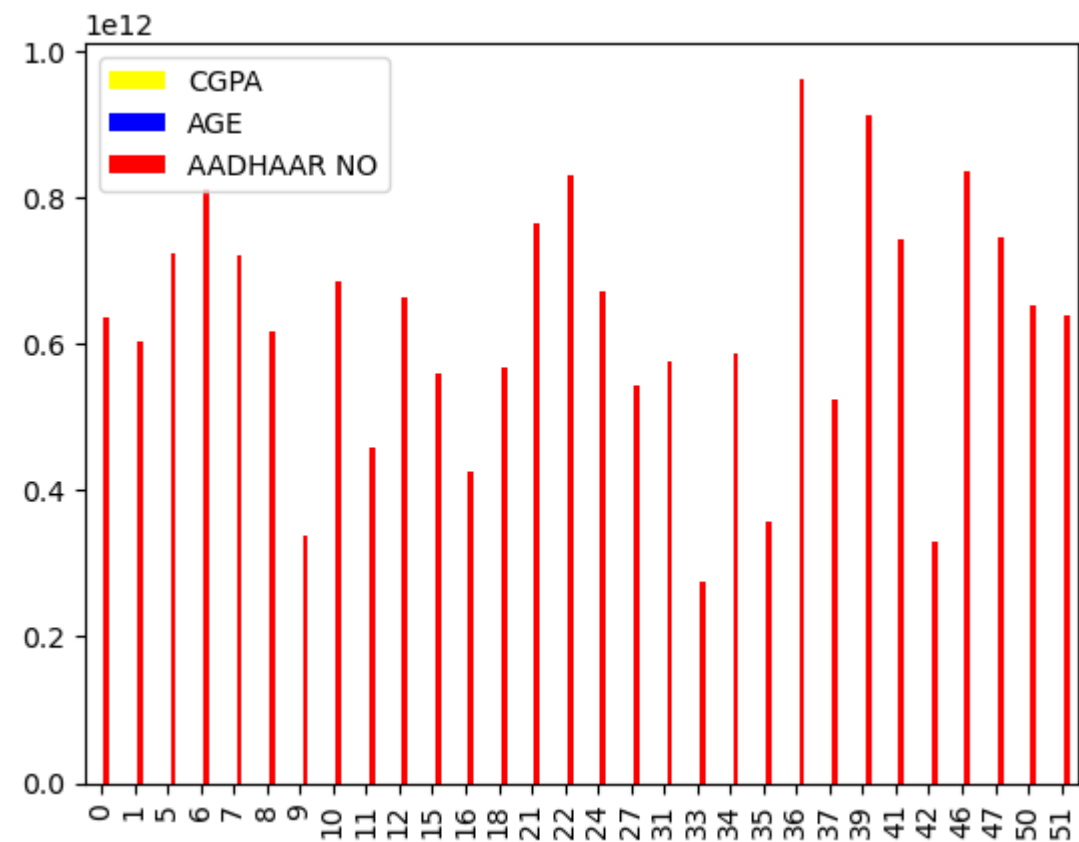


## BAR GRAPH:

Here we are plotting a bar graph by using some colors like red,green,blue.
By using these colors we are plotting a bar graph by using the data.

```
age20.plot.bar(color=['red','green','blue'])
age20
```

**OUTPUT:**

| | G m ail | STUDENT NAME | ROLL NUMB ER | FAT HER NAM E | MOTHER NAME | COURS E | C G PA | A G E | BR AN CH | SEMIS TER | | AAD HAA R NO |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | sravankumar7156 @gmail.com | Sravan Kumar | 21KP 1A448 8 | Rama Chandra Rao | Venkate swaram ma | M EC H | 7. 00 | 20 | mech | 4 | | 93031 90530 88 |
| 3 | sandeepyeruva11 24@gmail.com | Yeruva sandeep reddy | 21KP 1A44 D1 | Yeruva Ajay Kumar reddy | Yeruva Anjali Devi | CS E | 9. 50 | 20 | CSE | 2-3 | | 57615 49901 46 |
| 13 | kumarvalaparla89 0@gmail.com | Venkata Aravind Kumar. V | 21KP 1A44 C0 | Veeraswam y.v | Lakshmi .v | DS | 0. 98 | 20 | Data Science | 2-2 | | 51030 53458 24 |
| 14 | patchachinnu3@g mail.com | Patcha Jaswant h | 21KP 1A447 7 | Patcha apparao | Patcha sukanya | CS E | 0. 99 | 20 | Data science | 2-2 | | 74402 04139 63 |
| 17 | shaiksakina05@g mail.com | Shaik sameer | 21KP 1A44 A3 | Shaik Rahim babu | Shaik Raziya | DS | 80 .0 0 | 20 | DS | 2-2 | | 52926 14643 45 |
| 19 | vallu.srinu756939 @gmail.com | Vallu Srinu Siva Subrah manya m | 21KP 1A44 C1 | Vallu Srinivasa Rao | Vallu Surya kumari | DS | 73 .0 0 | 20 | Comput er Science Enginee ring& Data Science | 4 | | ***** ***** ** |
| 20 | undelachandraobu lareddy@gmail.co m | Undela Chandra Obula Reddy | 21KP 1A44 B9 | Undela Chinna Obula Reddy | Undela GuruLak shmi | DS | 9. 20 | 20 | Comput er Science | 2-2 | | 69362 17808 42 |
| 23 | madhulathasure9 @gmail.com | SURE. MADH ULATH | 21KP 1A44 A4 | SURE.VIS WANADH AM | SURE.S AI LAKSH | DS | 10 .0 0 | 20 | Data science | 2-2 | | 77648 60626 08 |

| Gmail | STUDENT NAME | ROLL NUMBER (A) | FATHER NAME | MOTHER NAME | COURSE (MI) | CGPA | AGE | BRANCH | SEMISTER | AADHAAR NO |
|---|---|---|---|---|---|---|---|---|---|---|
| 26 | abdulkhadar6842@gmail.com | Shaik.Abdul Khadar | 21KP1A4493 | Shaik.Kareem | Shaik.Farjana | ECE | 8.00 | 20 | 20 | 2-2 | 33470 82891 54 |
| 29 | ynagasasikumar@gmail.com | Y Naga Sasi Kumar | 21KP1A44D0 | Y Rama mohanarao | Y Lalitha | DS | 9.20 | 20 | 20 | 2-2 | 44817 24962 92 |
| 38 | abdulabdul22070@gmail.com | Syed.Abdul Rehaman | 21KP1A44A6 | Syed.Meera Sharif | Bandi.Krishna veni | DS | 90.00 | 20 | DS | 2-2 | 34785 35099 74 |
| 43 | paladugudurga1@gmail.com | P. Durga Sri | 21KP1A4473 | P. Amareswara rao | P. Seshu Kumari | DS | 80.00 | 20 | CSD(Data Science) | 2-2 | 69216 26616 08 |
| 44 | saidashaik371@gmail.com | SHAIK SAIDA ANWAR BASHA | 21KP1A44A2 | SHAIK KUDHAN VALI | SHAIK SAIDA HUSSA NBI | DS | 80.00 | 20 | DATA SCIENCE | 2-2 | 46672 26502 74 |
| 555 | mvkbn1312@gmail.com | R.M.V.K.Brahma ma Naidu | 21KP1A4489 | Yedukondalu | Nirmala | DS | 7.00 | 20 | Data science | 2-2 | 2387 7088 9424 |

**VISUALIZING THE BAR GRAPH OF AGE AND CGPA:**



## BAR GRAPH:

Here we are plotting a bar graph by using some colors like purple,yellow,black.        By using these colors we are plotting a bar graph by using the data.

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

**OUTPUT:**

| | Gmail | STUDENT NAME | ROLL NUMBER | FATHER NAME | MOTHER NAME | COURSE | CGPA | AGE | BRANCH | SEMISTER | AADHAAR NO | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | vennachandana1@gmail.com | Venna Chandana | 21KP1A44C5 | Venna Ramanareddy | Venna Lakshmidevi | DS | 8.00 | 19 | Data science | 2-2 | 636336922883 | |
| 4 | sivajibejjanki@gmail.com | B.sivaji | 22kp5a4402 | B.lakshmaiah | B.veramma | DS | 0.72 | 23 | Computer science | 2-2 | 895444662410 | |
| 5 | ramyayalabolu123r@gmail.com | Y.Ramya | 21KP1A44C8 | Y.Anjaiah | Y Lakshmi Rajyam | DS | 80.00 | 19 | CSD | 2-2 | 724574588425 | |
| 6 | charithareddy3914@gmail.com | P.charitha reddy | 21KP1A4475 | P.Madhava Reddy | P.Kavitha | DS | 70.00 | 19 | CSD | 2.2 | 810177524502 | |
| 7 | gayathripolepalli70@gmail.com | POLEPALLI. GAYATHRI | 21KP1A4481 | POLEPALLI. GURUBRAHMA CHARI | POLEPALLI.SRIDEVI | DS | 10.00 | 19 | Data Science | 2-2 | 721819168061 | |
| 9 | sowjanyathota11@gmail.com | T.SOWJANYA | 21KP1A44B6 | T.SAMBA SIVA RAO | T.ARUNA KUMARI | DS | 8.00 | 19 | DATA SCIENCE | 2-2 | 338666948901 | |
| 10 | tammasahithi1@gmail.com | Tamma Sahithi | 21KP1A44B0 | Tamma krishna reddy | Tamma Padmavathi | DS | 7.70 | 19 | CSE (Data science) | 2-2 | 685349832128 | |

| G ma il | STUDENT NAME | ROLL NUMBER | FATHER NAME | MOTHER NAME | COURSE | C GP A | A G E | BRA NC H | SEMI STER | AAD HAA R NO | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 11 | podilisarayu6@ gmail.com | PODILI LAKSHM ISARAY U | 21KP1 A4480 | PODILI RAMES H | PODILI ADILAKS HMI | DS | 7. 50 | 19 | DATA SCIE NCE | 2-2 | 458689 741091 |
| 12 | shaikkarishma8 11@gmail.com | shaik karishma | 21KP1 A4496 | SHAIK BAJI | SHAIK KHADRU N | DS | 9. 00 | 19 | ds | 2-2 | 663048 521599 |
| 13 | kumarvalaparla 890@gmail.co m | Venkata Aravind Kumar.V | 21KP1 A44C 0 | Veerasw amy.v | Lakshmi.v | DS | 0. 98 | 20 | Data Scienc e | 2-2 | 510305 345824 |
| 16 | vanukuri.ragha va@gmail.com | Raghava | 21KP1 A44C 3 | Srinivas a reddy | Jyothi | DS | 7. 00 | 19 | Data scienc e | 2-2 | 424973 081348 |
| 17 | shaiksakina05 @gmail.com | Shaik sameer | 21KP1 A44A 3 | Shaik Rahim babu | Shaik Raziya | DS | 80 .0 0 | 20 | DS | 2-2 | 529261 464345 |
| 18 | us465249@gm ail.com | S sk usman | 21KP1 A4492 | S sk mastan vali | Mahabobba | DS | 50 .0 0 | 19 | DS | 2-2 | 568753 875709 |
| 19 | vallu.srinu7569 39@gmail.com | Vallu Srinu Siva Subrahma nyam | 21KP1 A44C 1 | Vallu Srinivas a Rao | Vallu Surya kumari | DS | 73 .0 0 | 20 | Comp uter Scienc e Engine ering& Data Scienc e | 4 | ****** ****** |

**VISUALIZING THE BAR GRAPH OF DS STUDENTS:**
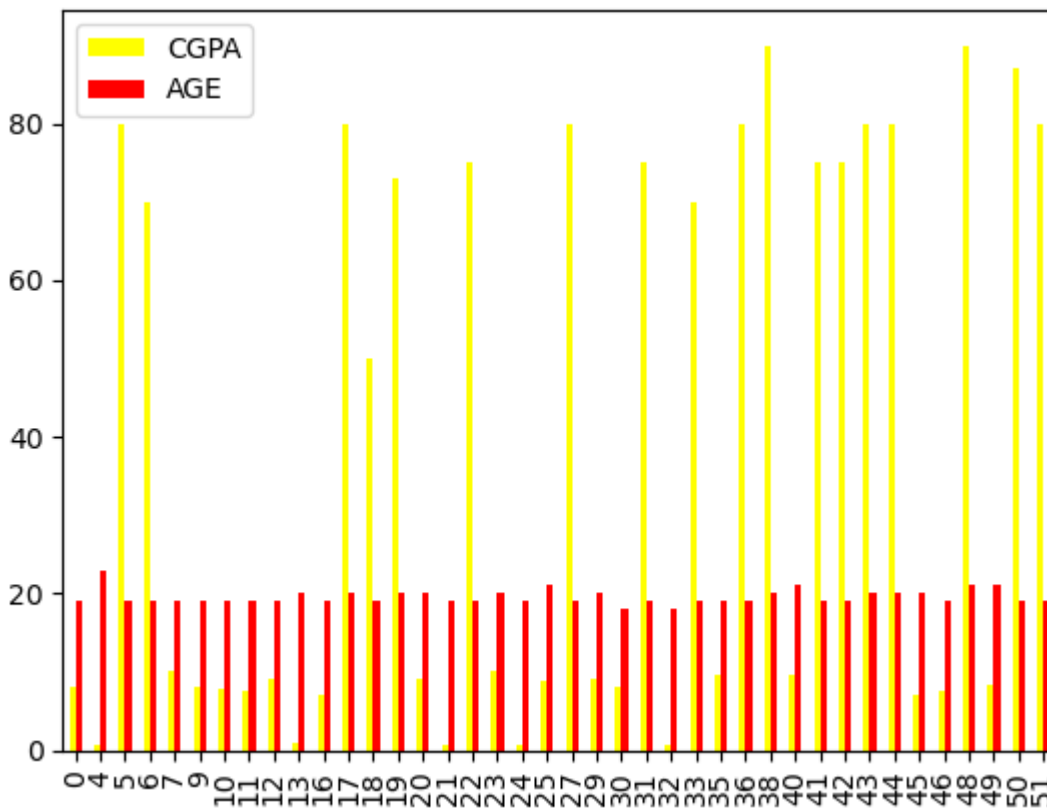
# BAR GRAPH:

Here we are plotting a bar graph by using the same data.
By using these data we are plotting a graph for CSE students.

```
gr_cse.plot.bar(color=['yellow','red','purple'])
gr_cse
```

**OUTPUT:**

| G ma il | STUDENT NAME | ROL L NUM BER | FATH ER NAM E | MOTHE R NAME | COU RSE | CG PA | A G E | BRA NCH | SEMI STER | AAD HAA R NO | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | adilakshmi4765@gm ail.com | N.Ven katesh | 21KP1 A4468 | N.Manik ya Rao | N.Sri Laksh mi | CS E | 83 .0 0 | 19 | CSE-DS | II-II | 602515 258256 |
| 3 | sandeepyeruva1124@ gmail.com | Yeruv a sandee p reddy | 21KP1 A44D1 | Yeruva Ajay Kumar reddy | Yeruv a Anjali Devi | CS E | 9. 50 | 20 | CSE | 2-3 | 576154 990146 |
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| 37 | indhupotla123@gmail .com | indhu priya | 21KP1 A4483 | Lakshma narayana | Sujath a | CS E | 72 .0 0 | 19 | cse | 2-2 | 524345 891620 |
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| 47 | saisairam068@gmail. com | Saira m | 21kp1a 44b4 | Venkata subbiah | Ravan amma | CS E | 10 .0 0 | 19 | Da | 2-2 | 746109 575146 |

**VISUALIZING THE BAR GRAPH OF CSE BRANCH:**
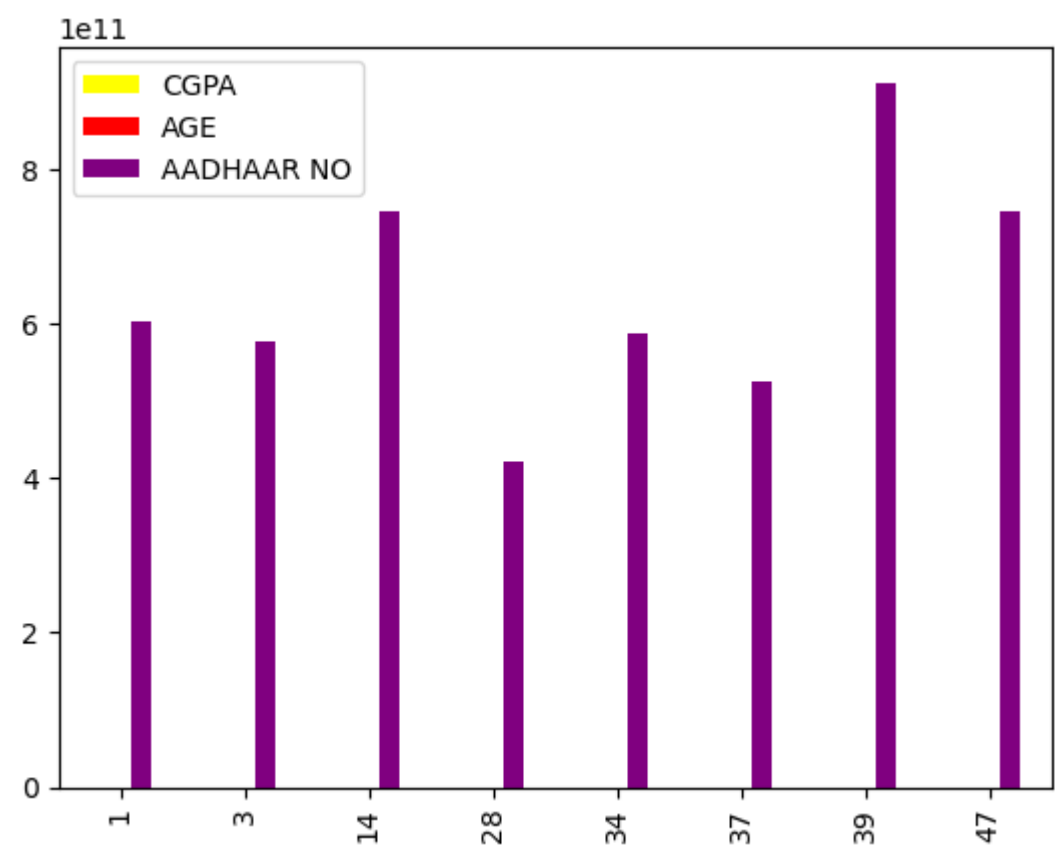


# BAR GRAPH:

Here we are plotting a bar graph by using some colors like purple,yellow,black.
By using these colors we are plotting a bar graph by using the data.

```
gr_mech.plot.bar(color=['purple','yellow','black'])
gr_mech
```

**OUTPUT:**

| G mail | STUDENT NAME | ROLL NUMBER | FATHER NAME | MOTHER NAME | COURSE | CGPA | AGE | BRANCH | SEMISTER | AADHAAR 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 | 19 | 2-2 | 559366114423 |

**VISUALIZING THE BAR GRAPH OF MECH BRANCH:**
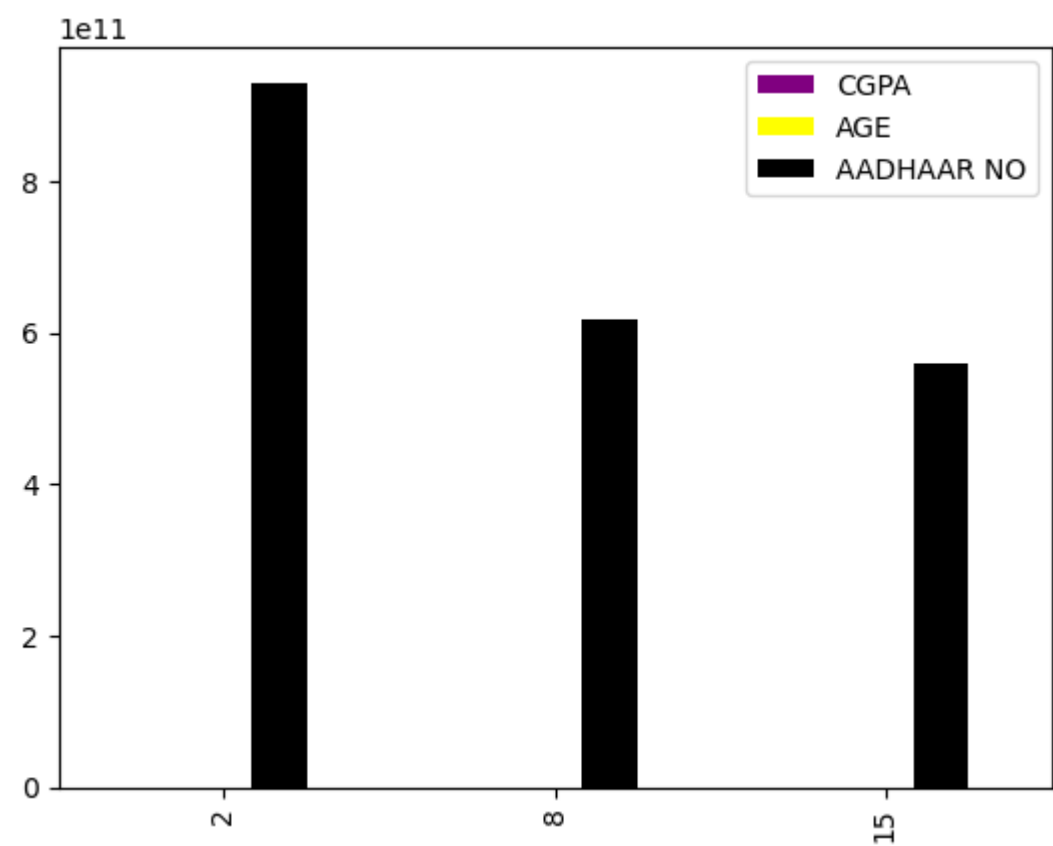


```
y=age18.CGPA.value_counts()
 y
```

**OUTPUT:**

```
    73.00     1
8.00      1
0.75      1
Name: CGPA, dtype: int64
```

# PIE PLOT:

To plot a pie graph we use the command plt.pie. Then it uses the command and build the pie plot for the given data.

```
plt.pie(y,labels=['8.0%','73.0%','O.75%'])
plt.show()
```
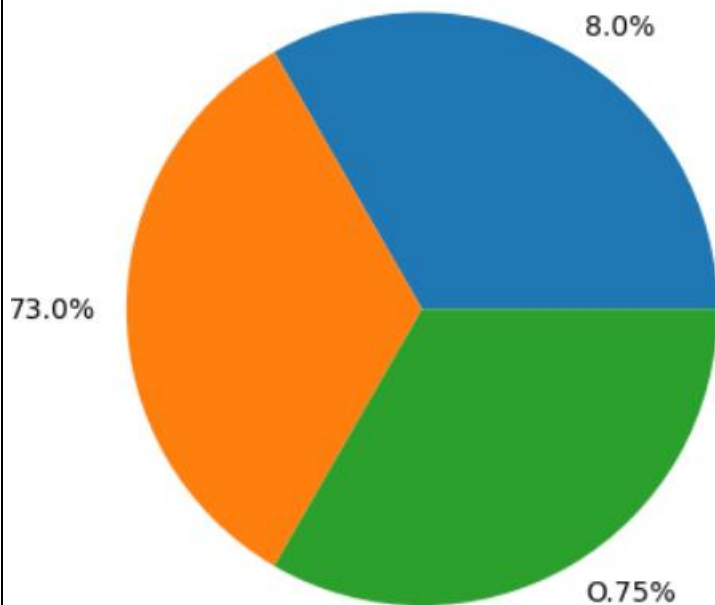
**OUTPUT:**



```
age19p=age19.CGPA.value_counts()
age19p
```

**OUTPUT:**

| | |
|---|---|
| 80.00 | 4 |
| 70.00 | 4 |
| 75.00 | 4 |
| 8.00 | 3 |
| 10.00 | 2 |
| 7.50 | 2 |
| 0.70 | 1 |
| 72.00 | 1 |
| 9.60 | 1 |
| 0.75 | 1 |
| 8.50 | 1 |
| 50.00 | 1 |
| 7.00 | 1 |
| 83.00 | 1 |
| 9.00 | 1 |
| 7.70 | 1 |
| 87.00 | 1 |

Name: CGPA, dtype: int64


# PIE PLOT:

Here we are plotting the pie plot of 3 labels I.e; DS,CSE,MECH.
By using this I will plot the pie plot.

```
plt.pie(dsp[0:3],labels=['DS','CSE','MECH'],explode=[0.1,0.1,0.1],shadow
=True)
plt.show()
```

**OUTPUT:**
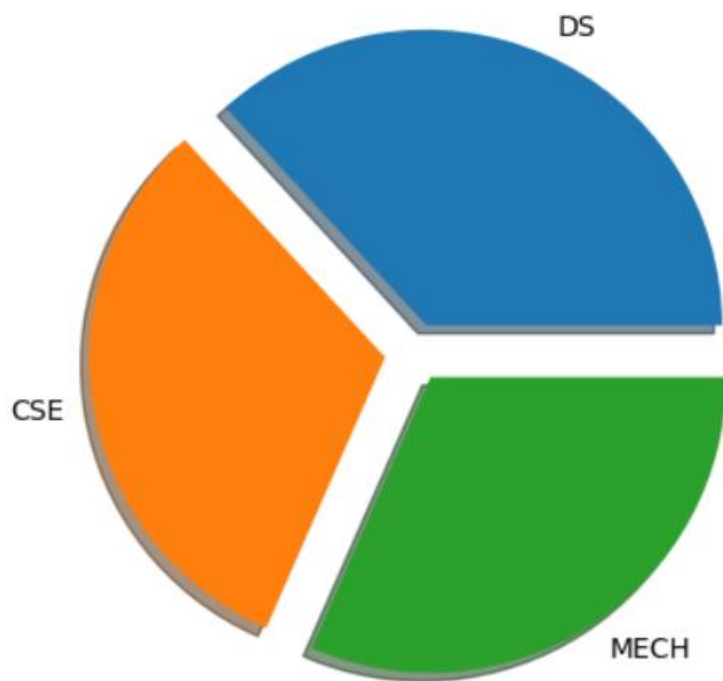
## SCATTER GRAPH AND LINE GRAPH:

Here we plotted a graph for the given data in scatter that means dotted graph and line graph which is represented by a line.

To plot a scatter graph we use the command plt.scatter then it shows the below graph.

To plot a line graph we use the command plt.plot then it shows the below graph.

## LINE GRAPH:
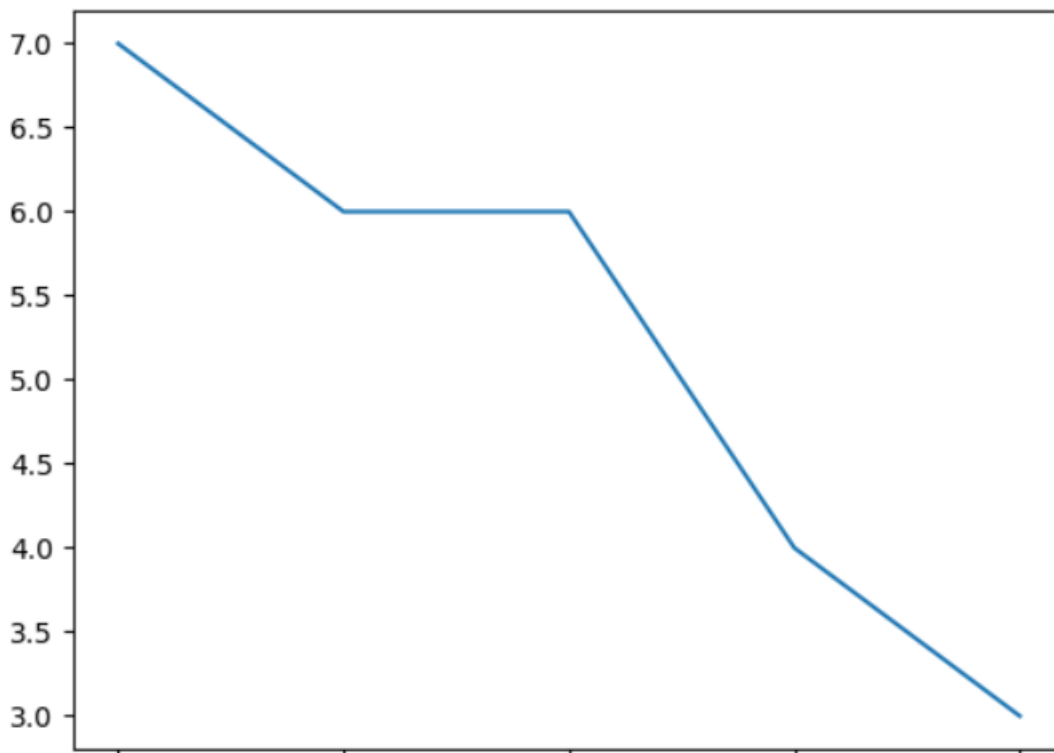
```
plt.plot(dsp.head())
plt.show()
```

## SCATTER GRAPH:

```
plt.scatter(age19p.head(),agep.tail())
plt.show()
```

## VISUALIZING THE SCATTER PLOT OF AGE:
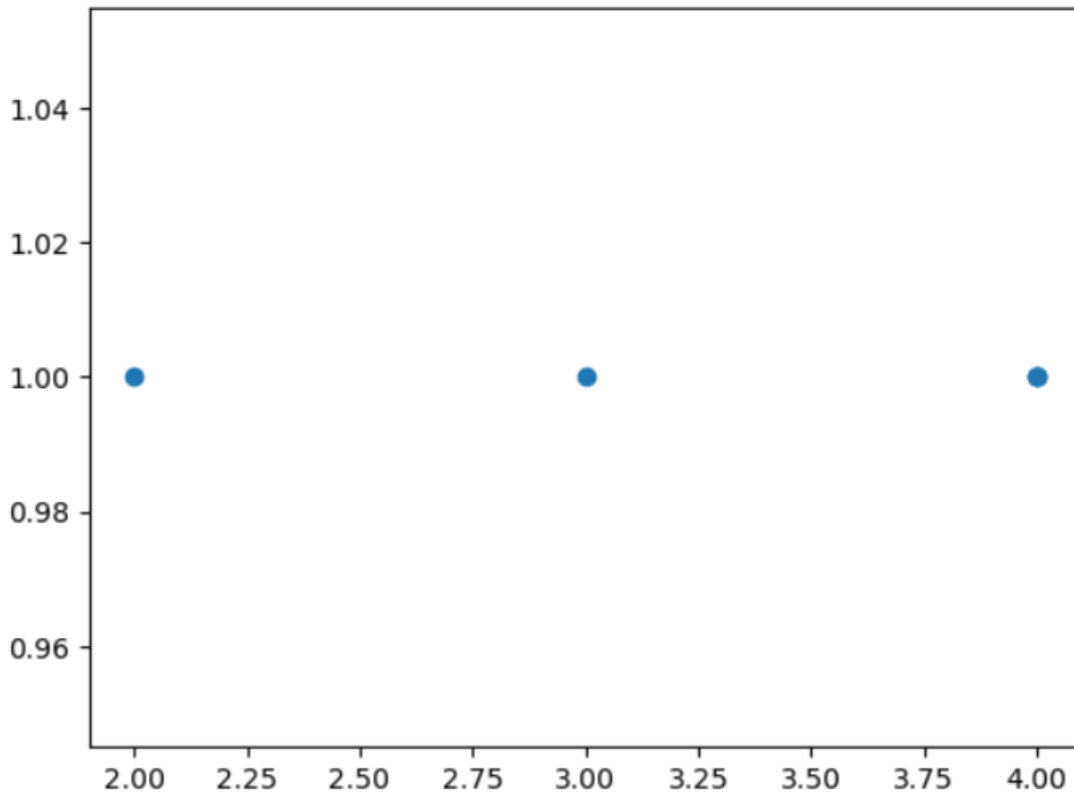
**VISUALIZING THE LINE PLOT OF AGE:**

**RESULT:**

- Data analysis summarizes collected data.
- It involves the interpretation of data gathered through the use of analytical and logical reasoning to determine patterns, relation ships or trends.

**OUTPUT:**

Data output is the process and method by which data can be studied under different circumstances and manipulated as required by the researcher. Any statistical analysis produces an output data that needs to be studied.

# *<u>SUMMARY</u>*

In this project, we aimed to develop a DATA ANALYIS USING PYTHON, with a focus on data techniques which are implemented in Python.

Data Analytics is  used in a large data sets to extract the informative data, and analysing the data with plots,graphs and other techniques.

 **PANDAS**: Pandas provides functions to handle missing data,perform mathematical operations, and manipulate the data.

**MATPLOTLIB**: Matplotlib library is commonly used for plotting data points and creating interactive visualizations of the data.

**NUMPY**: Numpy can be used to perform a wide variety of mathematical operations on arrays.

## <u>Benefits:</u>

- Improved data techniques, which can lead to understand the data easily.

- Improved graphs to visualize the data.

- Data analytics techniques enable a business to take raw data and uncover patterns to extract valuable insights.

- Easy memory management.