```
In [13]: import pandas as pd
          df = pd.read_csv('D:\\passport.csv')
          print(df.to_string())
                                   dob
                                                        adress having passport or not having
             s.no
                        name
                                         gender
                                                 age
          liscence or not
                              11-03-03
                                        female
          0
                1
                      sowmya
                                                  21
                                                           gwk
                                                                                   yes
          no
                2
                                        female
          1
                              12-01-00
                                                  21
                       ramya
                                                           gwk
                                                                                   yes
          no
          2
                3
                      navya
                              13-03-03
                                        female
                                                  21
                                                           gwk
                                                                                   yes
          no
          3
                4
                       nehal
                              14-03-03
                                        female
                                                  21
                                                           gwk
                                                                                   yes
          no
                                        female
          4
                5
                   yathesha
                              15-03-03
                                                  21
                                                          vskp
                                                                                   yes
          no
          5
                6
                      divya
                              16-03-03
                                        female
                                                  21
                                                      guntoor
                                                                                   yes
          yes
                7
                     yamini
                              17-03-03
                                        female
                                                  21
          6
                                                           hyd
                                                                                   yes
          yes
          7
                8
                      aruna
                              18-03-03
                                        female
                                                  21
                                                      bangkok
                                                                                   yes
          no
          8
                9
                         jуо
                              19-03-03
                                        female
                                                  21
                                                           goa
                                                                                   yes
          no
          9
               10
                     jyothi
                              20-03-03
                                        female
                                                  21
                                                         rajam
                                                                                   yes
          no
 In [3]: import pandas as pd
          df = pd.read_csv('D:\\passport.csv')
          df.aggregate({"age":['max','min']})
 Out[3]:
                age
                 21
           max
                 21
           min
 In [4]: import pandas as pd
          df = pd.read_csv('D:\\passport.csv')
          df.aggregate({"age":['mean']})
Out[4]:
                 age
          mean 21.0
```

```
In [5]: import pandas as pd
         df = pd.read csv('D:\\passport.csv')
        df.aggregate({"age":['sum']})
Out[5]:
               age
         sum 210
In [7]:
        import pandas as pd
         df = pd.read_csv('D:\\passport.csv')
        df.aggregate({"s.no":['max']})
Out[7]:
               s.no
                10
          max
In [8]:
        import pandas as pd
        df = pd.read csv('D:\\data.csv')
        print(df.to string())
             s.no
                        name
                              age
                                   gender adress
                                                         ph.no
                                                                            e amil
         0
                1
                      sowmya
                               18
                                   female
                                              gwk
                                                    9231544568
                                                                 ssirapar@gitam.in
         1
                2
                                                   9231544568
                                   female
                                                                 ssirapar@gitam.in
                       ramya
                               12
                                              gwk
         2
                3
                                   female
                                                    9231544568
                       navya
                               13
                                              gwk
                                                                 ssirapar@gitam.in
         3
                4
                       nehal
                               14
                                   female
                                                    9231544568
                                                                 ssirapar@gitam.in
                                              gwk
                5
         4
                   yathesha
                               15
                                   female
                                                    9231544568
                                                                ssirapar@gitam.in
                                              gwk
         5
                6
                       divya
                               16
                                   female
                                              gwk
                                                    9231544568
                                                                 ssirapar@gitam.in
         6
                7
                     yamini
                               18
                                   female
                                                    9231544568
                                                                 ssirapar@gitam.in
                                              gwk
         7
                8
                                   female
                       aruna
                               13
                                                    9231544568
                                              gwk
                                                                 ssirapar@gitam.in
         8
                9
                               13
                                   female
                                                    9231544568
                         jyo
                                              gwk
                                                                 ssirapar@gitam.in
         9
               10
                                   female
                      jyothi
                               14
                                                    9231544568
                                                                 ssirapar@gitam.in
                                              gwk
         10
               11
                     kumari
                               13
                                   female
                                              gwk
                                                    9231544568
                                                                 ssirapar@gitam.in
                                   female
         11
               12
                     likitha
                               17
                                              gwk
                                                    9231544568
                                                                 ssirapar@gitam.in
         12
               13
                               37
                                      male
                                                    9231544568
                                                                 ssirapar@gitam.in
                     bhagya
                                              gwk
         13
               14
                               48
                                      male
                                                    9231544568
                    praveen
                                              gwk
                                                                 ssirapar@gitam.in
         14
               15
                               25
                                      male
                                                    9231544568
                    lavanya
                                                                ssirapar@gitam.in
                                              gwk
         15
               16
                        vasu
                               12
                                      male
                                              gwk
                                                   9231544568
                                                                 ssirapar@gitam.in
         16
               17
                               21
                                      male
                                                    9231544568
                                                                ssirapar@gitam.in
                        ramu
                                              gwk
               18
         17
                     syamala
                               23
                                      male
                                              gwk
                                                    9231544568
                                                                 ssirapar@gitam.in
         18
               19
                       bujji
                               34
                                      male
                                                    9231544568
                                                                 ssirapar@gitam.in
                                              gwk
         19
               20
                       shiva
                                                    9231544568
                               13
                                      male
                                                                 ssirapar@gitam.in
                                              gwk
```

```
In [10]: import pandas as pd
          df = pd.read csv('D:\\passport.csv')
          print(df.to string())
          de=df.drop duplicates(subset="gender")
          print(de)
                                                         adress having passport or not having
             s.no
                        name
                                    dob
                                          gender
                                                  age
          liscence or not
          0
                      sowmya
                              11-03-03
                                         female
                                                    21
                1
                                                            gwk
                                                                                     yes
          no
                2
                       ramya
          1
                               12-01-00
                                          female
                                                    21
                                                            gwk
                                                                                     yes
          no
          2
                3
                               13-03-03
                                          female
                                                   21
                       navya
                                                            gwk
                                                                                     yes
          no
          3
                4
                       nehal
                              14-03-03
                                         female
                                                   21
                                                            gwk
                                                                                     yes
          no
          4
                    yathesha
                               15-03-03
                                          female
                                                    21
                                                           vskp
                                                                                     yes
          no
          5
                6
                       divya
                               16-03-03
                                         female
                                                   21
                                                        guntoor
                                                                                     yes
          yes
          6
                7
                      yamini
                               17-03-03
                                         female
                                                   21
                                                            hyd
                                                                                     yes
          yes
          7
                8
                       aruna
                               18-03-03
                                         female
                                                    21
                                                        bangkok
                                                                                     yes
          no
                9
                         jyo
                                         female
          8
                               19-03-03
                                                   21
                                                            goa
                                                                                     yes
          no
          9
               10
                      jyothi
                               20-03-03
                                         female
                                                   21
                                                          rajam
                                                                                     yes
          no
                                  dob
                                       gender
                                                age adress having passport or not
             s.no
                      name
          0
                            11-03-03
                                       female
                    sowmya
                                                 21
                                                        gwk
            having liscence or not
                                  no
In [19]:
          a=df.groupby(by=["having liscence or not"])
          print(pd.DataFrame(a))
          a.first()
               0
                                                                       1
          0
                                                                  adr...
              no
                      s.no
                                 name
                                             dob gender
                                                           age
                                                gender
          1
             yes
                      s.no
                                           dob
                                                         age
                                                               adres...
                               name
Out[19]:
                               s.no
                                      name
                                                dob gender age adress having passport or not
           having liscence or not
                           no
                                 1
                                    sowmya
                                            11-03-03
                                                     female
                                                             21
                                                                    gwk
                                                                                        yes
```

16-03-03

divya

female

21

guntoor

6

yes

yes

```
In [21]: a=df.groupby(by=['adress','name'])
a.first()
```

Out[21]:

		s.no	dob	gender	age	having passport or not	having liscence or not
adress	name						
bangkok	aruna	8	18-03-03	female	21	yes	no
goa	јуо	9	19-03-03	female	21	yes	no
guntoor	divya	6	16-03-03	female	21	yes	yes
	navya	3	13-03-03	female	21	yes	no
awk	nehal	4	14-03-03	female	21	yes	no
gwk	ramya	2	12-01-00	female	21	yes	no
	sowmya	1	11-03-03	female	21	yes	no
hyd	yamini	7	17-03-03	female	21	yes	yes
rajam	jyothi	10	20-03-03	female	21	yes	no
vskp	yathesha	5	15-03-03	female	21	yes	no

```
In [24]: import pandas as pd

df = pd.read_csv('D:\\passport.csv')
print(df.to_string())
```

9	s.no	name	dob	gender	age	adress	having	passport	or	not	having
lis	cence	or not	dpt								
0	1	sowmya	11-03-03	female	21	gwk				yes	
no	cse										
1	2	ramya	12-01-00	female	21	gwk				yes	
no	cse										
2	3	navya	13-03-03	female	21	gwk				yes	
no	mech			_							
3	4	nehal	14-03-03	female	21	gwk				yes	
no	ece										
4	5	yathesha	15-03-03	female	21	vskp				yes	
no	ece										
5	6	_	16-03-03	female	21	guntoor				yes	
yes	CS6										
6	7	-	17-03-03	temale	21	hyd				yes	
yes	bio		10 02 02	c 7	24						
7	8	aruna	18-03-03	+ema1e	21	bangkok				yes	
no	mech	<u></u>	10 02 02	C 1 -	24						
8	9	Јуо	19-03-03	темате	21	goa				yes	
no	bio	ivo+bi	20 02 02	£amala	21	no-i-o-m					
9	10	Jyothi	20-03-03	тешате	21	rajam				yes	
no	ece										

In [34]: a=df.groupby(by=['dpt','name','gender'])
a.first()

Out[34]:

			s.no	dob	age	adress	having passport or not	having liscence or not
dpt	name	gender						
bio	jyo	female	9	19-03- 03	21	goa	yes	no
	yamini	female	7	17-03- 03	21	hyd	yes	yes
	divya	female	6	16-03- 03	21	guntoor	yes	yes
cse	ramya	female	2	12-01- 00	21	gwk	yes	no
	sowmya	female	1	11-03- 03	21	gwk	yes	no
	jyothi	female	10	20-03- 03	21	rajam	yes	no
ece	nehal	female	4	14-03- 03	21	gwk	yes	no
	yathesha	female	5	15-03- 03	21	vskp	yes	no
mech	aruna	female	8	18-03- 03	21	bangkok	yes	no
	navya	female	3	13-03- 03	21	gwk	yes	no

```
In [36]: import pandas as pd

df = pd.read_csv('D:\\passport.csv')

print(df.to_string())
a=df.groupby(by=['dpt','name','gender'])
a.first()
```

9	s.no	name	dob	gender	age	adress	having	passport	or n	not	having
liso	ence	or not	dpt								
0	1	sowmya	11-03-03	female	21	gwk			У	/es	
no	cse										
1	2	ramya	12-01-00	male	21	gwk			У	/es	
no	cse										
2	3	navya	13-03-03	male	21	gwk			У	/es	
no	mech										
3	4	nehal	14-03-03	male	21	gwk			У	/es	
no	ece										
4		yathesha	15-03-03	female	21	vskp			У	/es	
no -	ece										
5	6	,	16-03-03	temale	21	guntoor			У	/es	
yes	CS(17 02 02		0.4						
6	7	-	17-03-03	†ema1e	21	hyd			У	/es	
yes	bio		10 02 02	C 1 -	24	la a sa ada ada					
7	8	aruna	18-03-03	темате	21	bangkok			У	/es	
no	mech	٠	10 02 02	C1-	24						
8	9	Јуо	19-03-03	тетате	21	goa			У	/es	
no	bio	ivo+h:	20 02 02	fomal o	21	naiam					
9	10	Jyothi	20-03-03	тешате	21	rajam			У	/es	
no	ece										

Out[36]:

			s.no	dob	age	adress	having passport or not	having liscence or not
dpt	name	gender						
hia	jyo	female	9	19-03- 03	21	goa	yes	no
bio	yamini	female	7	17-03- 03	21	hyd	yes	yes
	divya	female	6	16-03- 03	21	guntoor	yes	yes
cse	ramya	male	2	12-01- 00	21	gwk	yes	no
	sowmya	female	1	11-03- 03	21	gwk	yes	no
	jyothi	female	10	20-03- 03	21	rajam	yes	no
ece	nehal	male	4	14-03- 03	21	gwk	yes	no
	yathesha	female	5	15-03- 03	21	vskp	yes	no
mech	aruna	female	8	18-03- 03	21	bangkok	yes	no

			s.no	dob	age	adress	having passport or not	having liscence or not
dpt	name	gender						
	navya	male	3	13-03- 03	21	gwk	yes	no

In []: