import pandas as pd

titanic=pd.read_csv(r'https://github.com/YBI-Foundation/Dataset/raw/
main/Titanic.csv')

titanic.head()

	pclass		survi	.ved	name						
0	x \	1		1		Al	len, Mis	s. Elisabe	eth Wa	lton	
1 ma ¹ 2	male	1		1		All	ison, Ma	ster. Huds	son Tr	evor	
		1		0		Д	allison, I	Miss. Hele	en Lor	aine	
3	male	1		0		Allison,	Mr. Huds	on Joshua	Creig	hton	
4	le male	1		0 A1	lison, M	1rs. Hudson	J C (Be	ssie Waldo	o Dani	.els)	
	ag	e	sibsp	parch	ticket	fare	cabin	embarked	boat	body	
0	29.0	0	0	0	24160	211.3375	B5	S	2	NaN	
1	0.9	2	1	2	113781	151.5500	C22 C26	S	11	NaN	
2	2.0	0	1	2	113781	151.5500	C22 C26	S	NaN	NaN	
3	30.0	0	1	2	113781	151.5500	C22 C26	S	NaN	135.0	
4	25.0	0	1	2	113781	151.5500	C22 C26	S	NaN	NaN	

```
home.dest

St Louis, MO

Montreal, PQ / Chesterville, ON

Montreal, PQ / Chesterville, ON

Montreal, PQ / Chesterville, ON

Montreal, PQ / Chesterville, ON
```

titanic.info()

<class 'pandas.core.frame.DataFrame'>
RangeIndex: 1309 entries, 0 to 1308
Data columns (total 14 columns):

#	Column	Non-Null Count	Dtype
0	pclass	1309 non-null	int64
1	survived	1309 non-null	int64
2	name	1309 non-null	object
3	sex	1309 non-null	object

```
4
                1046 non-null
                                 float64
     age
 5
     sibsp
                1309 non-null
                                 int64
 6
     parch
                1309 non-null
                                 int64
 7
     ticket
                1309 non-null
                                obiect
                                 float64
 8
     fare
                1308 non-null
 9
     cabin
                295 non-null
                                object
 10
    embarked
                1307 non-null
                                 obiect
 11
                486 non-null
                                 object
    boat
 12
    body
                121 non-null
                                 float64
 13
     home.dest 745 non-null
                                object
dtypes: float64(3), int64(4), object(7)
memory usage: 143.3+ KB
titanic.columns
Index(['pclass', 'survived', 'name', 'sex', 'age', 'sibsp', 'parch',
'ticket'.
        fare', 'cabin', 'embarked', 'boat', 'body', 'home.dest'],
      dtvpe='object')
titanic.name
                          Allen, Miss. Elisabeth Walton
0
1
                         Allison, Master. Hudson Trevor
2
                           Allison, Miss. Helen Loraine
3
                   Allison, Mr. Hudson Joshua Creighton
        Allison, Mrs. Hudson J C (Bessie Waldo Daniels)
4
1304
                                    Zabour, Miss. Hileni
                                   Zabour, Miss. Thamine
1305
                               Zakarian, Mr. Mapriededer
1306
                                     Zakarian, Mr. Ortin
1307
                                      Zimmerman, Mr. Leo
1308
Name: name, Length: 1309, dtype: object
titanic['name']
0
                          Allen, Miss. Elisabeth Walton
1
                         Allison, Master. Hudson Trevor
2
                           Allison, Miss. Helen Loraine
3
                   Allison, Mr. Hudson Joshua Creighton
4
        Allison, Mrs. Hudson J C (Bessie Waldo Daniels)
1304
                                    Zabour, Miss. Hileni
1305
                                   Zabour, Miss. Thamine
1306
                               Zakarian, Mr. Mapriededer
1307
                                     Zakarian, Mr. Ortin
1308
                                      Zimmerman, Mr. Leo
Name: name, Length: 1309, dtype: object
name=titanic['name']
```

```
name.shape
(1309,)
name=titanic[['name']]
name
                                                    name
                         Allen, Miss. Elisabeth Walton
1
                        Allison, Master. Hudson Trevor
2
                          Allison, Miss. Helen Loraine
3
                  Allison, Mr. Hudson Joshua Creighton
4
      Allison, Mrs. Hudson J C (Bessie Waldo Daniels)
1304
                                   Zabour, Miss. Hileni
1305
                                  Zabour, Miss. Thamine
                             Zakarian, Mr. Mapriededer
1306
1307
                                    Zakarian, Mr. Ortin
1308
                                     Zimmerman, Mr. Leo
[1309 rows x 1 columns]
Select 100row and all the columns using iloc function
titanic.iloc[ 100,:]
pclass
                                                           1
survived
             Duff Gordon, Sir. Cosmo Edmund ("Mr Morgan")
name
                                                        male
sex
                                                        49.0
age
                                                           1
sibsp
parch
                                                           0
                                                    PC 17485
ticket
fare
                                                     56.9292
cabin
                                                         A20
embarked
                                                           C
boat
                                                           1
bodv
                                                         NaN
                                             London / Paris
home.dest
Name: 100, dtype: object
titanic.loc[100,:]
pclass
                                                           1
survived
             Duff Gordon, Sir. Cosmo Edmund ("Mr Morgan")
name
                                                        male
sex
                                                        49.0
age
sibsp
                                                           1
                                                           0
parch
```

```
PC 17485
ticket
                                                    56.9292
fare
cabin
                                                         A20
embarked
                                                           C
                                                           1
boat
body
                                                         NaN
home.dest
                                             London / Paris
Name: 100, dtype: object
Select all the rows with columns label name and fare column with iloc function
titanic.iloc[:,[2,8]]
                                                              fare
                                                   name
                                                         211.3375
                         Allen, Miss. Elisabeth Walton
0
1
                        Allison, Master. Hudson Trevor
                                                          151.5500
2
                          Allison, Miss. Helen Loraine
                                                         151.5500
3
                 Allison, Mr. Hudson Joshua Creighton
                                                          151.5500
4
      Allison, Mrs. Hudson J C (Bessie Waldo Daniels)
                                                          151.5500
1304
                                  Zabour, Miss. Hileni
                                                           14.4542
                                 Zabour, Miss. Thamine
                                                           14.4542
1305
1306
                             Zakarian, Mr. Mapriededer
                                                            7.2250
                                                            7.2250
1307
                                   Zakarian, Mr. Ortin
1308
                                    Zimmerman, Mr. Leo
                                                            7.8750
[1309 rows x 2 columns]
titanic.loc[:,['name','fare']]
                                                   name
                                                              fare
0
                         Allen, Miss. Elisabeth Walton
                                                         211.3375
                        Allison, Master. Hudson Trevor
1
                                                          151.5500
2
                          Allison, Miss. Helen Loraine
                                                         151.5500
                 Allison, Mr. Hudson Joshua Creighton
3
                                                          151.5500
4
      Allison, Mrs. Hudson J C (Bessie Waldo Daniels)
                                                          151.5500
                                  Zabour, Miss. Hileni
                                                           14.4542
1304
1305
                                 Zabour, Miss. Thamine
                                                           14.4542
                                                            7.2250
                             Zakarian, Mr. Mapriededer
1306
1307
                                   Zakarian, Mr. Ortin
                                                            7.2250
                                    Zimmerman, Mr. Leo
1308
                                                            7.8750
[1309 rows x 2 columns]
titanic.loc[[50,25,15],['pclass','fare','age']]
    pclass
                fare
                        age
            512.3292
                       58.0
50
         1
         1
             26.0000
25
                       25.0
15
         1
             25.9250
                        NaN
```

```
titanic.iloc[[50,25,15],[0,8,4]]
    pclass
                 fare
                         age
50
             512.3292
                        58.0
         1
25
         1
              26.0000
                        25.0
15
         1
              25.9250
                         NaN
titanic.loc[10:25,['pclass','fare','age']]
    pclass
                 fare
                        age
             227.5250
10
         1
                        47.0
             227.5250
11
         1
                        18.0
12
         1
              69.3000
                        24.0
13
         1
              78.8500
                        26.0
14
         1
              30.0000
                        80.0
15
         1
              25.9250
                        NaN
16
         1
             247.5208
                       24.0
17
             247.5208
                       50.0
         1
18
          1
              76.2917
                        32.0
19
         1
              75.2417
                        36.0
20
              52.5542
                        37.0
         1
21
         1
              52.5542
                       47.0
                        26.0
22
         1
              30.0000
23
         1
             227.5250
                        42.0
                        29.0
24
         1
             221.7792
25
         1
              26.0000
                        25.0
titanic.iloc[10:26,[0,8,4]]
    pclass
                 fare
                        age
             227.5250
                        47.0
10
         1
11
         1
             227.5250
                        18.0
12
         1
              69.3000
                        24.0
                        26.0
13
         1
              78.8500
14
         1
              30.0000
                       80.0
              25.9250
15
         1
                        NaN
                        24.0
16
         1
             247.5208
17
             247.5208
                        50.0
         1
18
              76.2917
                        32.0
         1
19
              75.2417
                        36.0
         1
20
                        37.0
         1
              52.5542
21
         1
              52.5542
                        47.0
22
              30.0000
                        26.0
         1
                        42.0
23
         1
             227.5250
24
             221.7792
                        29.0
         1
25
         1
              26.0000
                        25.0
titanic.loc[10:15,'pclass':'age']
    pclass survived
name \
                                                     Astor, Col. John
10
         1
                    0
```

```
Jacob
                    1 Astor, Mrs. John Jacob (Madeleine Talmadge
11
         1
Force)
12
         1
                    1
                                            Aubart, Mme. Leontine
Pauline
13
                    1
                                             Barber, Miss. Ellen
"Nellie"
                                     Barkworth, Mr. Algernon Henry
14
         1
                    1
Wilson
         1
                                                       Baumann, Mr. John
15
                    0
D
       sex
             age
            47.0
10
      male
            18.0
11
    female
    female
            24.0
12
13
            26.0
    female
14
      male
            80.0
15
      male
             NaN
titanic.iloc[10:16,0:5]
    pclass survived
name
     \
         1
                    0
                                                    Astor, Col. John
10
Jacob
11
                       Astor, Mrs. John Jacob (Madeleine Talmadge
         1
Force)
                    1
                                            Aubart, Mme. Leontine
         1
12
Pauline
13
                    1
                                             Barber, Miss. Ellen
"Nellie"
14
         1
                    1
                                     Barkworth, Mr. Algernon Henry
Wilson
         1
15
                    0
                                                       Baumann, Mr. John
D
       sex
             age
10
            47.0
      male
11
    female
            18.0
12
    female
            24.0
13
    female
            26.0
14
      male
            80.0
15
      male
             NaN
titanic[titanic['age']>=35]
      pclass survived
name
                      1
           1
                                                       Anderson, Mr.
Harry
```

C	1	-			A al	M-	1 / 2	.1:-			
6 Theodosia	1]			Andre	ews, Miss					
7 Jr	1	6	Ð			And	drews,	Mr. Thomas	S		
8 Lamson)	1	1	L A	ppleto	n, Mrs. Ed	lward Dale	e (Chai	rlotte			
9	1	6	Ð			Arta	agaveyt	tia, Mr.			
Ramon											
1286	3	1	L Wha	bee, M	rs. George	g Joseph ((Shawne	eene Abi-			
Saab) 1287	3	(Widegren, Mr. Carl/Charles							
Peter 1290	3	1		<u>-</u>							
Needs)				Wilkes, Mrs. James (Ellen							
1298 Camille	3	(•)			Witte	/ronge	l, Mr.			
1301 Gerious	3	6	9			١	ousef1	f, Mr.			
9	sex a	ige si	ibsp	parch	ticket	fare	cabin	embarked			
boat \		3.0	0	0	19952	26.5500	E12	S			
3											
6 fema		3.0	1	0	13502	77.9583	D7	S			
7 ma NaN	ale 39	0.0	0	0	112050	0.0000	A36	S			
8 fema D	ale 53	3.0	2	0	11769	51.4792	C101	S			
	ale 71	. 0	Θ	0	PC 17609	49.5042	NaN	С			
		• •	• • •			• • • •			•		
1286 fema	ale 38	3.0	0	0	2688	7.2292	NaN	С			
	ale 51	0	0	0	347064	7.7500	NaN	S			
1290 fema	ale 47	.0	1	0	363272	7.0000	NaN	S			
	ale 36	5.0	0	0	345771	9.5000	NaN	S			
NaN 1301 ma NaN	ale 45	.5	0	Θ	2628	7.2250	NaN	С			
6 Na	dy aN aN aN		ew Yor Hudso	e.dest rk, NY on, NY st, NI							

```
NaN
              Bayside, Queens, NY
8
9
       22.0
             Montevideo, Uruguay
1286
        NaN
                               NaN
1287
        NaN
                               NaN
1290
        NaN
                               NaN
1298
        NaN
                               NaN
1301
     312.0
                               NaN
[345 rows x 14 columns]
titanic.loc[(titanic['age']>=35), 'pclass':'age']
      pclass survived
name
5
           1
                      1
                                                       Anderson, Mr.
Harry
                                        Andrews, Miss. Kornelia
           1
                      1
6
Theodosia
           1
                      0
                                                    Andrews, Mr. Thomas
7
Jr
                           Appleton, Mrs. Edward Dale (Charlotte
           1
                      1
Lamson)
           1
                      0
                                                   Artagaveytia, Mr.
Ramon
. . .
          . . .
                                                                         . .
1286
                         Whabee, Mrs. George Joseph (Shawneene Abi-
           3
                      1
Saab)
           3
                      0
                                         Widegren, Mr. Carl/Charles
1287
Peter
1290
           3
                      1
                                         Wilkes, Mrs. James (Ellen
Needs)
           3
                      0
                                                 Wittevrongel, Mr.
1298
Camille
1301
           3
                      0
                                                      Youseff, Mr.
Gerious
         sex
                age
5
        male
               48.0
6
      female
               63.0
7
        male
               39.0
8
      female
               53.0
9
        male
               71.0
               . . .
      female
               38.0
1286
1287
        male
               51.0
1290
      female
              47.0
1298
        male
               36.0
1301
        male
              45.5
```

```
[345 rows x 5 columns]
titanic.loc[(titanic['age']>=35 ) & (titanic['sex']=='female')]
      pclass
              survived
name
                                          Andrews, Miss. Kornelia
           1
                      1
Theodosia
                             Appleton, Mrs. Edward Dale (Charlotte
           1
                      1
Lamson)
                      1
                          Baxter, Mrs. James (Helene DeLaudeniere
17
           1
Chaput)
                         Beckwith, Mrs. Richard Leonard (Sallie
21
           1
                      1
Monypeny)
23
           1
                      1
                                                       Bidois, Miss.
Rosalie
. . .
                    . . .
           3
                                  Rosblom, Mrs. Viktor (Helena
1158
                      0
Wilhelmina)
                           Skoog, Mrs. William (Anna Bernhardina
1211
           3
                      0
Karlsson)
           3
                      1
                                                     Turkula, Mrs.
1261
(Hedwig)
1286
           3
                      1
                          Whabee, Mrs. George Joseph (Shawneene Abi-
Saab)
1290
           3
                                           Wilkes, Mrs. James (Ellen
                      1
Needs)
                     sibsp
                           parch
                                      ticket
                                                   fare
                                                            cabin embarked
         sex
                age
boat
      female
                         1
                                                77.9583
                                                               D7
                                                                          S
6
               63.0
                                 0
                                       13502
10
8
      female
              53.0
                         2
                                 0
                                       11769
                                                51.4792
                                                             C101
                                                                          S
D
17
      female
              50.0
                         0
                                 1
                                    PC 17558
                                               247.5208
                                                          B58 B60
                                                                          C
6
      female
                                                                          S
21
              47.0
                         1
                                 1
                                       11751
                                                52.5542
                                                              D35
23
      female 42.0
                                    PC 17757
                                                                          C
                         0
                                 0
                                               227.5250
                                                              NaN
4
. . .
                                                              . . .
                                                                        . . .
      female 41.0
                                 2
                                                                          S
1158
                         0
                                      370129
                                                20.2125
                                                              NaN
NaN
1211
      female 45.0
                         1
                                 4
                                      347088
                                                27.9000
                                                                          S
                                                              NaN
NaN
      female 63.0
                                                                          S
1261
                         0
                                 0
                                         4134
                                                 9.5875
                                                              NaN
15
```

1286 C	female	38.0	Θ	0	2688	7.2292	NaN	С
1290 NaN	female	47.0	1	0	363272	7.0000	NaN	S
6 8 17 21 23 1158 1211 1261 1286 1290	body NaN NaN NaN NaN NaN NaN NaN NaN NaN Na		ontreal, ww York, N N N	NY NY PQ				

[125 rows x 14 columns]