# day-4-pandas-part-2

#### January 4, 2023

```
[34]: import pandas as pd
[35]: movie=pd.read_csv("/content/movies.csv")
     Add new row in data frame
[36]: dic = {
          "Name":['Rohit',"Verma","Pushpa","Ankit"],
          "Roll_No" : [2128,2128,2124,2104],
          "Education" :["M.sc","M.sc","M.sc","M.sc"]
      d=pd.DataFrame(dic)
[37]: new_person=pd.Series(["Piyush",2129,"M.

sc"],index=['Name',"Roll_No",'Education'])
[38]: d.append(new_person,ignore_index=True)
[38]:
                 Roll_No Education
           Name
      0
          Rohit
                    2128
                              M.sc
          Verma
                    2128
                              M.sc
      1
      2 Pushpa
                    2124
                              M.sc
      3
          Ankit
                    2104
                              M.sc
      4 Piyush
                    2129
                              M.sc
[39]: new=pd.Series(["Vishal",2139,"M.sc"])
[40]: new
[40]: 0
           Vishal
             2139
      1
             M.sc
      dtype: object
[41]: d.append(new,ignore_index=True)
[41]:
                                                        2
           Name Roll_No Education
                                          0
                                                  1
                  2128.0
      0
          Rohit
                              M.sc
                                        NaN
                                                NaN
                                                      NaN
```

```
1
          Verma
                   2128.0
                               M.sc
                                         NaN
                                                 NaN
                                                        NaN
      2
                   2124.0
        Pushpa
                               {\tt M.sc}
                                         NaN
                                                 NaN
                                                        NaN
      3
          Ankit
                   2104.0
                               M.sc
                                         NaN
                                                 NaN
                                                        NaN
            NaN
                                              2139.0 M.sc
      4
                      NaN
                                NaN
                                     Vishal
     new=pd.Series(["Money",2125,"M.sc"],index=["Name","Roll_No","Education"])
[42]:
[43]: d.append(new,ignore_index=True)
[43]:
           Name
                 Roll_No Education
      0
          Rohit
                     2128
                               M.sc
      1
          Verma
                     2128
                               M.sc
      2 Pushpa
                     2124
                               M.sc
          Ankit
                     2104
                               M.sc
      3
          Money
                     2125
                               M.sc
     Rename the columns
[44]: d.rename(columns={"Name":"NAME"})
[44]:
           NAME
                 Roll_No Education
                     2128
      0
          Rohit
                               M.sc
          Verma
                     2128
                               M.sc
      1
      2 Pushpa
                               M.sc
                     2124
      3
          Ankit
                     2104
                               M.sc
[45]: d.rename(columns={"NAME":"Name", "Education": "Education"})
[45]:
           Name
                 Roll_No Education
          Rohit
                     2128
                               M.sc
      0
                     2128
                               M.sc
      1
          Verma
      2 Pushpa
                     2124
                               M.sc
          Ankit
                     2104
                               M.sc
     Select a multiple and Indivisual Data Or sclice of a DataFrame
[46]: movie
[46]:
                                                        imdb_id \
                                           title_x
      0
                         Uri: The Surgical Strike
                                                     tt8291224
                                     Battalion 609
      1
                                                     tt9472208
      2
            The Accidental Prime Minister (film)
                                                     tt6986710
      3
                                  Why Cheat India
                                                     tt8108208
      4
                                  Evening Shadows
                                                     tt6028796
                            Tera Mera Saath Rahen
      1624
                                                     tt0301250
      1625
                             Yeh Zindagi Ka Safar
                                                     tt0298607
      1626
                                  Sabse Bada Sukh
                                                     tt0069204
```

```
1627
                                       Daaka
                                              tt10833860
1628
                                    Humsafar
                                                tt2403201
                                              poster_path
0
      https://upload.wikimedia.org/wikipedia/en/thum...
1
2
      https://upload.wikimedia.org/wikipedia/en/thum...
3
      https://upload.wikimedia.org/wikipedia/en/thum...
4
                                                       NaN
      https://upload.wikimedia.org/wikipedia/en/2/2b...
1625
      https://upload.wikimedia.org/wikipedia/en/thum...
1626
1627
      https://upload.wikimedia.org/wikipedia/en/thum...
      https://upload.wikimedia.org/wikipedia/en/thum...
1628
                                                 wiki_link
0
      https://en.wikipedia.org/wiki/Uri:_The_Surgica...
            https://en.wikipedia.org/wiki/Battalion_609
1
2
      https://en.wikipedia.org/wiki/The_Accidental_P...
3
          https://en.wikipedia.org/wiki/Why_Cheat_India
4
          https://en.wikipedia.org/wiki/Evening_Shadows
      https://en.wikipedia.org/wiki/Tera_Mera_Saath_...
1624
      https://en.wikipedia.org/wiki/Yeh_Zindagi_Ka_S...
1625
1626
          https://en.wikipedia.org/wiki/Sabse_Bada_Sukh
1627
                     https://en.wikipedia.org/wiki/Daaka
1628
                 https://en.wikipedia.org/wiki/Humsafar
                                                       original_title
                                                                        is_adult
                             title_y
0
                                            Uri: The Surgical Strike
           Uri: The Surgical Strike
                                                                                0
1
                                                                                0
                       Battalion 609
                                                        Battalion 609
2
                                                                                0
      The Accidental Prime Minister
                                       The Accidental Prime Minister
3
                     Why Cheat India
                                                      Why Cheat India
                                                                                0
4
                                                                                0
                     Evening Shadows
                                                      Evening Shadows
1624
                                                                                0
               Tera Mera Saath Rahen
                                                Tera Mera Saath Rahen
1625
               Yeh Zindagi Ka Safar
                                                Yeh Zindagi Ka Safar
                                                                                0
1626
                     Sabse Bada Sukh
                                                      Sabse Bada Sukh
                                                                                0
1627
                               Daaka
                                                                 Daaka
                                                                                0
1628
                            Humsafar
                                                             Humsafar
                                                                                0
      year_of_release runtime
                                                    imdb_rating
                                                                  imdb_votes
                                           genres
0
                  2019
                           138
                                 Action|Drama|War
                                                            8.4
                                                                       35112
                                                            4.1
1
                  2019
                           131
                                               War
                                                                          73
2
                                                             6.1
                  2019
                           112
                                  Biography | Drama
                                                                        5549
3
                  2019
                           121
                                      Crime | Drama
                                                             6.0
                                                                        1891
```

4	2018 102	Drama	7.3	280
			4 0	070
1624	2001 148	Drama	4.9	278
1625	2001 146	Drama Como dos Dosemo	3.0	133
1626	2018 \N	Comedy Drama	6.1	13
1627	2019 136	Action	7.4	38
1628	2011 35	Drama Romance	9.0	2968
			,	
0	Divided acceptions about accepting	story	\	
0	Divided over five chapters			
1	The story revolves around			
2	Based on the memoir by Ind			
3	The movie focuses on exist	-		
4	While gay rights and marri	age equality has bee		
	Dei Diest liere with his w			
1624	Raj Dixit lives with his y			
1625	Hindi pop-star Sarina Dev	•		
1626	Village born Lalloo re-loc	•		
1627	Shinda tries robbing a ban			
1628	Sara and Ashar are childho	ood friends who share		
				,
•		•	tagline	\
0	Indian army special forces	<del>_</del>	NaN	
1	The story of Battalion 609		NaN	
2	Explores Manmohan Singh's		NaN	
3	The movie focuses on exist	-	NaN	
4	Under the 'Evening Shadows	s' truth often plays	NaN	
		<b></b>		
1624	A man is torn between his		NaN	
1625	A singer finds out she was	-	NaN	
1626	Village born Lalloo re-loc	•	NaN	
1627	Shinda tries robbing a ban		NaN	
1628	Ashar and Khirad are force	d to get married due	NaN	
			,	
•		actors	\	
0	Vicky Kaushal Paresh Rawal			
1	Vicky Ahuja Shoaib Ibrahim			
2	Anupam Kher Akshaye Khanna			
3	Emraan Hashmi Shreya Dhanw			
4	Mona Ambegaonkar Ananth Na	rayan Mahadevan Deva		
	Adam Danier I Garage 1 1 1 2			
1624	Ajay Devgn Sonali Bendre N			
1625	Ameesha Patel Jimmy Sheirg			
1626	Vijay Arora Asrani Rajni B	_		
1627	Gi	ppy Grewal Zareen Khan		
1628		Fawad Khan		

```
wins_nominations
                                                  release_date
      0
                                         11 January 2019 (USA)
                             4 wins
      1
                                NaN
                                       11 January 2019 (India)
      2
                                         11 January 2019 (USA)
                                NaN
      3
                                NaN
                                         18 January 2019 (USA)
                                       11 January 2019 (India)
      4
            17 wins & 1 nomination
      1624
                                       7 November 2001 (India)
                                NaN
      1625
                                NaN
                                      16 November 2001 (India)
      1626
                                NaN
      1627
                                         1 November 2019 (USA)
                                NaN
      1628
                                NaN
                                         TV Series (2011-2012)
      [1629 rows x 18 columns]
[47]: movie["title_x"]
[47]: 0
                           Uri: The Surgical Strike
                                       Battalion 609
      1
              The Accidental Prime Minister (film)
      3
                                     Why Cheat India
      4
                                     Evening Shadows
      1624
                              Tera Mera Saath Rahen
      1625
                               Yeh Zindagi Ka Safar
      1626
                                     Sabse Bada Sukh
      1627
                                               Daaka
      1628
                                            Humsafar
      Name: title_x, Length: 1629, dtype: object
[48]: movie[["title_x","imdb_rating"]]
[48]:
                                                    imdb_rating
                                           title_x
      0
                         Uri: The Surgical Strike
                                                             8.4
                                     Battalion 609
      1
                                                             4.1
      2
            The Accidental Prime Minister (film)
                                                             6.1
      3
                                  Why Cheat India
                                                             6.0
      4
                                  Evening Shadows
                                                             7.3
      1624
                            Tera Mera Saath Rahen
                                                             4.9
      1625
                             Yeh Zindagi Ka Safar
                                                             3.0
      1626
                                  Sabse Bada Sukh
                                                             6.1
      1627
                                             Daaka
                                                             7.4
      1628
                                          Humsafar
                                                             9.0
```

[1629 rows x 2 columns]

```
[49]: movie[["title_x","imdb_rating"]].iloc[[1,3,4,5]]
[49]:
                           imdb_rating
                 title_x
      1
           Battalion 609
                                   4.1
      3
         Why Cheat India
                                   6.0
         Evening Shadows
                                   7.3
      4
             Soni (film)
                                   7.2
[50]:
     movie.iloc[1:5]
[50]:
                                        title_x
                                                   imdb_id \
                                 Battalion 609
                                                 tt9472208
      1
      2
         The Accidental Prime Minister (film)
                                                 tt6986710
      3
                               Why Cheat India
                                                 tt8108208
      4
                               Evening Shadows
                                                 tt6028796
                                                 poster_path
      1
                                                          NaN
         https://upload.wikimedia.org/wikipedia/en/thum...
      3
         https://upload.wikimedia.org/wikipedia/en/thum...
      4
                                                          NaN
                                                   wiki link
      1
               https://en.wikipedia.org/wiki/Battalion_609
         https://en.wikipedia.org/wiki/The_Accidental_P...
      3
             https://en.wikipedia.org/wiki/Why_Cheat_India
      4
             https://en.wikipedia.org/wiki/Evening_Shadows
                                                                           is_adult
                                title_y
                                                          original_title
      1
                          Battalion 609
                                                           Battalion 609
      2
         The Accidental Prime Minister
                                          The Accidental Prime Minister
                                                                                  0
      3
                        Why Cheat India
                                                         Why Cheat India
                                                                                  0
      4
                        Evening Shadows
                                                         Evening Shadows
                                                                                  0
         year_of_release runtime
                                             genres
                                                     imdb rating
                                                                   imdb votes
                                                              4.1
      1
                     2019
                              131
                                                War
                                                                            73
      2
                                   Biography | Drama
                                                              6.1
                                                                          5549
                     2019
                              112
      3
                     2019
                              121
                                        Crime|Drama
                                                              6.0
                                                                          1891
                     2018
                              102
                                              Drama
                                                              7.3
                                                                           280
                                                        story \
      1 The story revolves around a cricket match betw...
      2 Based on the memoir by Indian policy analyst S...
      3 The movie focuses on existing malpractices in ...
      4 While gay rights and marriage equality has bee...
```

summary tagline \

```
2 Explores Manmohan Singh's tenure as the Prime ...
                                                               NaN
      3 The movie focuses on existing malpractices in ...
                                                               NaN
      4 Under the 'Evening Shadows' truth often plays...
                                                               NaN
                                                      actors
                                                                    wins_nominations
      1 Vicky Ahuja|Shoaib Ibrahim|Shrikant Kamat|Elen...
                                                                                NaN
      2 Anupam Kher|Akshaye Khanna|Aahana Kumra|Atul S...
                                                                                NaN
      3 Emraan Hashmi|Shreya Dhanwanthary|Snighdadeep ...
                                                                                NaN
      4 Mona Ambegaonkar|Ananth Narayan Mahadevan|Deva...
                                                           17 wins & 1 nomination
                    release_date
      1
         11 January 2019 (India)
      2
           11 January 2019 (USA)
           18 January 2019 (USA)
      3
        11 January 2019 (India)
[51]: movie.iloc[:3]
[51]:
                                       title x
                                                   imdb_id \
                     Uri: The Surgical Strike
                                                tt8291224
                                 Battalion 609
      1
                                                 tt9472208
        The Accidental Prime Minister (film)
                                                 tt6986710
                                                 poster_path
         https://upload.wikimedia.org/wikipedia/en/thum...
      2 https://upload.wikimedia.org/wikipedia/en/thum...
                                                   wiki_link \
         https://en.wikipedia.org/wiki/Uri:_The_Surgica...
               https://en.wikipedia.org/wiki/Battalion_609
      1
      2 https://en.wikipedia.org/wiki/The_Accidental_P...
                                title_y
                                                         original_title
                                                                         is_adult
      0
              Uri: The Surgical Strike
                                              Uri: The Surgical Strike
                          Battalion 609
                                                          Battalion 609
                                                                                 0
      1
         The Accidental Prime Minister
                                         The Accidental Prime Minister
                                                                                 0
         year_of_release runtime
                                                      imdb_rating
                                                                   imdb_votes
                                             genres
      0
                              138
                                   Action|Drama|War
                                                              8.4
                                                                         35112
                    2019
                                                              4.1
      1
                    2019
                              131
                                                 War
                                                                            73
                    2019
                              112
                                    Biography | Drama
                                                              6.1
                                                                          5549
                                                       story
      O Divided over five chapters the film chronicle...
      1 The story revolves around a cricket match betw...
```

NaN

1 The story of Battalion 609 revolves around a c...

summary tagline \ O Indian army special forces execute a covert op... NaN1 The story of Battalion 609 revolves around a c... NaN2 Explores Manmohan Singh's tenure as the Prime ... NaNactors wins\_nominations \ O Vicky Kaushal|Paresh Rawal|Mohit Raina|Yami Ga... 4 wins 1 Vicky Ahuja|Shoaib Ibrahim|Shrikant Kamat|Elen... NaN 2 Anupam Kher|Akshaye Khanna|Aahana Kumra|Atul S... NaNrelease\_date 0 11 January 2019 (USA) 11 January 2019 (India) 1 11 January 2019 (USA) Set the index from the exiting data set [52]: new\_movie=movie[["title\_x","imdb\_rating"]] [53]: new movie.set index("title x") [53]: imdb\_rating title\_x Uri: The Surgical Strike 8.4 Battalion 609 4.1 The Accidental Prime Minister (film) 6.1 Why Cheat India 6.0 Evening Shadows 7.3 Tera Mera Saath Rahen 4.9 Yeh Zindagi Ka Safar 3.0 Sabse Bada Sukh 6.1 Daaka 7.4 Humsafar 9.0 [1629 rows x 1 columns] Selecting row based on the condition [54]: #import titanic dataset titanic = pd.read\_csv("/content/test[1].csv") titanic [54]: PassengerId Pclass Name 0 892 Kelly, Mr. James 1 893 Wilkes, Mrs. James (Ellen Needs)

2 Based on the memoir by Indian policy analyst S...

2		894	2			Myles,	Mr. Thomas	s Franc	cis
3		895	3				Wirz, M	r. Albe	ert
4		896	3	Hirvon	en, Mrs.	Alexander (	(Helga E Li	indqvis	st)
		•••	•••					•••	
413		1305	3				Spector, N	Mr. Woo	olf
414		1306	1			Oliva y Oc	ana, Dona	. Fermi	ina
415		1307	3			Saether, M	Mr. Simon S	Siverts	sen
416		1308	3			V	Nare, Mr. I	rederi	ick
417		1309	3			Peter,	Master. N	Michae]	LJ
						·			
	Sex	Age	SibSp	Parch		Ticket	Fare	Cabin	Embarked
0	male	34.5	0	0		330911	7.8292	NaN	Q
1	female	47.0	1	0		363272	7.0000	NaN	S
2	male	62.0	0	0		240276	9.6875	NaN	Q
3	male	27.0	0	0		315154	8.6625	NaN	S
4	female	22.0	1	1		3101298	12.2875	NaN	S
	•••						•••		
413	${\tt male}$	NaN	0	0		A.5. 3236	8.0500	NaN	S
414	female	39.0	0	0		PC 17758	108.9000	C105	C
415	male	38.5	0	0	SOTON/O	.Q. 3101262	7.2500	NaN	S
416	male	NaN	0	0		359309	8.0500	NaN	S
417	male	NaN	1	1		2668	22.3583	NaN	C

#### in this i import the titanic dataset

```
[55]: #in this dateset i want to select all the male on the titanic dataset titanic["Sex"] == "male"]
```

\	SibSp	Age	Sex	Name	Pclass	PassengerId	[55]:
	0	34.5	male	Kelly, Mr. James	3	892	0
	0	62.0	${\tt male}$	Myles, Mr. Thomas Francis	2	894	2
	0	27.0	${\tt male}$	Wirz, Mr. Albert	3	895	3
	0	14.0	${\tt male}$	Svensson, Mr. Johan Cervin	3	897	5
	1	26.0	${\tt male}$	Caldwell, Mr. Albert Francis	2	899	7
		•				•••	
	1	50.0	${\tt male}$	Widener, Mr. George Dunton	1	1299	407
	0	NaN	${\tt male}$	Spector, Mr. Woolf	3	1305	413
	0	38.5	${\tt male}$	Saether, Mr. Simon Sivertsen	3	1307	415
	0	NaN	${\tt male}$	Ware, Mr. Frederick	3	1308	416
	1	NaN	${\tt male}$	Peter, Master. Michael J	3	1309	417
			l	icket Fare Cabin Embarked	Τ	Parch	
			)	30911 7.8292 NaN Q	3	0	0
			)	40276 9.6875 NaN Q	2	0	2
			)	15154 8.6625 NaN S	3	0	3

```
5
          0
                             7538
                                      9.2250
                                                NaN
                                                             S
7
                                                             S
          1
                           248738
                                     29.0000
                                                NaN
                                                             С
407
          1
                           113503
                                    211.5000
                                                C80
413
          0
                       A.5. 3236
                                      8.0500
                                                NaN
                                                             S
             SOTON/O.Q. 3101262
                                                             S
415
          0
                                      7.2500
                                                NaN
416
          0
                                      8.0500
                                                NaN
                                                             S
                           359309
                                                             С
417
          1
                             2668
                                     22.3583
                                                NaN
```

C55 C57

[266 rows x 11 columns]

```
[61]: | #we select all the rows where the pasangers is a male 65 or older:
      titanic[(titanic["Sex"]=="male") & (titanic["Age"] >65)]
[61]:
          PassengerId Pclass
                                                                   SibSp
                                                                          Parch \
                                                Name
                                                       Sex
                                                              Age
                   973
                                                            67.0
                                                                       1
      81
                                 Straus, Mr. Isidor
                                                     \mathtt{male}
            Ticket
                         Fare
                                  Cabin Embarked
```

### 1 Replacing Values

221.7792

PC 17483

we want to replace value in the dataframe using 'replace' method first we change the only specific columns values in dataframe

```
[64]: titanic["Sex"]
[64]: 0
                male
      1
              female
      2
                male
      3
                male
      4
              female
      413
                male
      414
              female
      415
                male
      416
                male
      417
                male
      Name: Sex, Length: 418, dtype: object
[65]: titanic["Sex"].replace("female", "women")
[65]: 0
               male
      1
              women
      2
               male
      3
               male
      4
              women
```

```
Name: Sex, Length: 418, dtype: object
      We also change the multiple values in the dataframe columns
[66]:
     titanic["Sex"]
[66]: 0
                male
              female
      1
      2
                male
      3
                male
              female
      413
                male
      414
              female
      415
                male
      416
                male
      417
                male
      Name: Sex, Length: 418, dtype: object
[68]: titanic.replace(["female","male"],["Women","Men"])
[68]:
            PassengerId Pclass
                                                                              Name
                                                                                       Sex
                    892
                                                                 Kelly, Mr. James
      0
                                                                                       Men
      1
                    893
                               3
                                               Wilkes, Mrs. James (Ellen Needs)
                                                                                     Women
      2
                    894
                               2
                                                       Myles, Mr. Thomas Francis
                                                                                       Men
      3
                    895
                               3
                                                                 Wirz, Mr. Albert
                                                                                       Men
                               3
      4
                    896
                                  Hirvonen, Mrs. Alexander (Helga E Lindqvist)
                                                                                     Women
      . .
      413
                               3
                                                               Spector, Mr. Woolf
                   1305
                                                                                       Men
                                                    Oliva y Ocana, Dona. Fermina
      414
                   1306
                               1
                                                                                     Women
      415
                   1307
                               3
                                                    Saether, Mr. Simon Sivertsen
                                                                                       Men
      416
                               3
                                                              Ware, Mr. Frederick
                   1308
                                                                                       Men
                               3
      417
                   1309
                                                        Peter, Master. Michael J
                                                                                       Men
             Age
                  SibSp
                          Parch
                                              Ticket
                                                           Fare Cabin Embarked
      0
            34.5
                       0
                              0
                                               330911
                                                         7.8292
                                                                   NaN
                                                                               Q
      1
            47.0
                       1
                              0
                                               363272
                                                         7.0000
                                                                   NaN
                                                                               S
      2
            62.0
                       0
                              0
                                               240276
                                                         9.6875
                                                                   NaN
                                                                               Q
      3
            27.0
                       0
                              0
                                               315154
                                                         8.6625
                                                                               S
                                                                   NaN
      4
                                                        12.2875
                                                                               S
            22.0
                       1
                              1
                                             3101298
                                                                   NaN
```

413

414

415

416

417

male

women

male

male

male

S	NaN	8.0500	A.5. 3236	0	0	NaN	413
C	C105	108.9000	PC 17758	0	0	39.0	414
S	${\tt NaN}$	7.2500	SOTON/O.Q. 3101262	0	0	38.5	415
S	NaN	8.0500	359309	0	0	NaN	416
C	NaN	22.3583	2668	1	1	NaN	417

#### we can also change the values in the entire dataframe

```
[70]:
     titanic.head(3)
[70]:
          PassengerId Pclass
                                                                Name
                                                                                      SibSp
                                                                          Sex
                                                                                Age
      0
                  892
                             3
                                                  Kelly, Mr. James
                                                                               34.5
                                                                                          0
                                                                        male
                             3
      1
                  893
                                 Wilkes, Mrs. James (Ellen Needs)
                                                                      female
                                                                               47.0
                                                                                          1
                             2
      2
                  894
                                        Myles, Mr. Thomas Francis
                                                                               62.0
                                                                                          0
                                                                         male
         Parch
                 Ticket
                            Fare Cabin Embarked
      0
                 330911
                          7.8292
                                    NaN
                                                Q
      1
              0
                 363272
                          7.0000
                                    NaN
                                                S
      2
              0
                 240276
                                                Q
                          9.6875
                                    NaN
     titanic.replace(1,"one")
[71]:
[71]:
            PassengerId Pclass
                                                                              Name
                                                                                        Sex
                                                                 Kelly, Mr. James
                    892
                                                                                       male
      1
                     893
                               3
                                               Wilkes, Mrs. James (Ellen Needs)
                                                                                     female
      2
                    894
                               2
                                                       Myles, Mr. Thomas Francis
                                                                                       male
                    895
                               3
                                                                 Wirz, Mr. Albert
      3
                                                                                       male
      4
                    896
                                  Hirvonen, Mrs. Alexander (Helga E Lindqvist)
                                                                                     female
                               3
                                                               Spector, Mr. Woolf
      413
                    1305
                                                                                       male
      414
                    1306
                            one
                                                    Oliva y Ocana, Dona. Fermina
                                                                                     female
      415
                    1307
                               3
                                                    Saether, Mr. Simon Sivertsen
                                                                                       male
      416
                    1308
                               3
                                                             Ware, Mr. Frederick
                                                                                       male
      417
                    1309
                               3
                                                        Peter, Master. Michael J
                                                                                       male
             Age SibSp Parch
                                             Ticket
                                                          Fare Cabin Embarked
      0
            34.5
                      0
                                             330911
                                                        7.8292
                                                                  NaN
                                                                              Q
                            0
      1
            47.0
                            0
                                             363272
                                                        7.0000
                                                                  NaN
                                                                              S
                    one
      2
            62.0
                                                                              Q
                      0
                            0
                                             240276
                                                        9.6875
                                                                  NaN
      3
            27.0
                      0
                            0
                                             315154
                                                        8.6625
                                                                  NaN
                                                                              S
            22.0
                                            3101298
                                                       12.2875
                                                                  NaN
                                                                              S
                    one
                          one
      413
             NaN
                      0
                            0
                                          A.5. 3236
                                                        8.0500
                                                                  NaN
                                                                              S
                                           PC 17758
                                                                              С
      414
            39.0
                      0
                            0
                                                      108.9000
                                                                 C105
                            0
                                                                              S
      415
            38.5
                      0
                                SOTON/O.Q. 3101262
                                                        7.2500
                                                                  NaN
```

```
416
       {\tt NaN}
                           0
                                               359309
                                                             8.0500
                                                                         {\tt NaN}
                  0
                                                                                        \mathsf{S}
                                                                                        С
417
        NaN
                                                  2668
                                                            22.3583
                                                                         NaN
                        one
                one
```

### [73]: titanic.replace(0,"zero")

[73]:		Passeng	rerId	Pclass	2	Name \
[10].	0	1 4550112	892	3		Kelly, Mr. James
	1		893	3		Wilkes, Mrs. James (Ellen Needs)
	2		894	2		Myles, Mr. Thomas Francis
3			895	3		Wirz, Mr. Albert
4			896	3		vonen, Mrs. Alexander (Helga E Lindqvist)
					) IIII V	vollen, Mrs. Alexander (Heiga E Elliuqvist)
	 413		 1305		2	 Spector, Mr. Woolf
	414		1306	1		Oliva y Ocana, Dona. Fermina
	414 415		1307	3		Saether, Mr. Simon Sivertsen
	416		1307	3		Ware, Mr. Frederick
	417		1309	3		Peter, Master. Michael J
-	±11		1309		,	reter, master. michael 3
		Sex	Age	SibSp	Parch	Ticket Fare Cabin Embarked
C	0	${\tt male}$	34.5	zero	zero	330911 7.8292 NaN Q
1	1	female	47.0	1	zero	363272 7.0 NaN S
2	2	male	62.0	zero	zero	240276 9.6875 NaN Q
3	3	male	27.0	zero	zero	315154 8.6625 NaN S
4	4	female	22.0	1	1	3101298 12.2875 NaN S
		•••		•••		
4	413	male	NaN	zero	zero	A.5. 3236 8.05 NaN S
4	414	female	39.0	zero	zero	PC 17758 108.9 C105 C
4	415	male	38.5	zero	zero	SOTON/O.Q. 3101262 7.25 NaN S
4	416	male	NaN	zero	zero	359309 8.05 NaN S
	417	male	NaN	1	1	2668 22.3583 NaN C

[418 rows x 11 columns]

### [75]: titanic.replace([0,1],["zero","one"])

\	Sex	Name	Pclass	PassengerId	[75]:
	male	Kelly, Mr. James	3	892	0
	female	Wilkes, Mrs. James (Ellen Needs)	3	893	1
!	male	Myles, Mr. Thomas Francis	2	894	2
	male	Wirz, Mr. Albert	3	895	3
	female	Hirvonen, Mrs. Alexander (Helga E Lindqvist)	3	896	4
			•••	•••	
	male	Spector, Mr. Woolf	3	1305	413
	female	Oliva y Ocana, Dona. Fermina	one	1306	414
	male	Saether, Mr. Simon Sivertsen	3	1307	415

416		1308	3	3	V	Vare, Mr	. Frederick	male
417		1309	9	3	Peter	, Master	. Michael J	male
	Age	${\tt SibSp}$	${\tt Parch}$	Ticket	Fare	Cabin E	Embarked	
0	34.5	zero	zero	330911	7.8292	NaN	Q	
1	47.0	one	zero	363272	7.0	NaN	S	
2	62.0	zero	zero	240276	9.6875	NaN	Q	
3	27.0	zero	zero	315154	8.6625	NaN	S	
4	22.0	one	one	3101298	12.2875	NaN	S	
	•••					·•		
413	${\tt NaN}$	zero	zero	A.5. 3236	8.05	NaN	S	
414	39.0	zero	zero	PC 17758	108.9	C105	С	
415	38.5	zero	zero	SOTON/O.Q. 3101262	7.25	NaN	S	
416	NaN	zero	zero	359309	8.05	NaN	S	
417	NaN	one	one	2668	22.3583	NaN	C	

### 1.1 Rename columns

[77]: titanic.rename(columns={"Pclass":"Passenger Class"})

	PassengerId	Passenger Class	\					
0	892	3						
1	893	3						
2	894	2						
3	895	3						
4	896	3						
	•••	•••						
413	1305	3						
414	1306	1						
415	1307	3						
416	1308	3						
417	1309	3						
			Name	Sex	Age	SibSp	Parch	\
0		k	Kelly, Mr. James	male	34.5	0	0	
1		Wilkes, Mrs. Jame	es (Ellen Needs)	female	47.0	1	0	
		•		male	62.0	0	0	
3			•			0	0	
4	Hirvonen, Mr	s. Alexander (Hel	.ga E Lindqvist)	female	22.0	1	1	
			•••		•••	•••		
413				male	NaN	0	0	
414		Oliva y Ocana	a, Dona. Fermina	female	39.0	0	0	
415		Saether, Mr.	Simon Sivertsen	male	38.5	0	0	
416				male	NaN	0	0	
417			ster. Michael J	${\tt male}$	${\tt NaN}$	1	1	
	0 1 2 3 4  413 414 415 416 417 0 1 2 3 4  413 414 415	0 892 1 893 2 894 3 895 4 896 413 1305 414 1306 415 1307 416 1308 417 1309  0 1 2 3 4 Hirvonen, Mr 413 414 415	0 892 3 1 893 3 2 894 2 3 895 3 4 896 3 413 1305 3 414 1306 1 415 1307 3 416 1308 3 417 1309 3 0 K 1 Wilkes, Mrs. Jame 2 Myles, Mr. 3 Wilkes, Mrs. Jame 4 Hirvonen, Mrs. Alexander (Hellow) 1 Special	0       892       3         1       893       3         2       894       2         3       895       3         4       896       3              413       1305       3         414       1306       1         415       1307       3         416       1308       3         417       1309       3     Name  Name  Name  Name  Name  Name  Name  Hirvones, Mr. James (Ellen Needs)  Myles, Mr. Thomas Francis  Wirz, Mr. Albert  Hirvonen, Mrs. Alexander (Helga E Lindqvist)  Spector, Mr. Albert  Hirvonen, Mrs. Alexander (Helga E Lindqvist)  Spector, Mr. Woolf  Oliva y Ocana, Dona. Fermina  Saether, Mr. Simon Sivertsen	0       892       3         1       893       3         2       894       2         3       895       3         4       896       3              413       1305       3         414       1306       1         415       1307       3         416       1308       3         417       1309       3     Name  Sex  Relly, Mr. James  male  Myles, Mr. Thomas Francis  male  Myles, Mr. Thomas Francis  male  Hirvonen, Mrs. Alexander (Helga E Lindqvist)  female  Spector, Mr. Albert  male  Oliva y Ocana, Dona. Fermina  female  Gliva y Ocana, Dona. Fermina  female  Saether, Mr. Simon Sivertsen  male	0       892       3         1       893       3         2       894       2         3       895       3         4       896       3              413       1305       3         414       1306       1         415       1307       3         416       1308       3         417       1309       3     Name  Sex  Age  Name  Name  Sex  Age  Name  Wilkes, Mrs. James (Ellen Needs)  female  47.0  Myles, Mr. Thomas Francis  male  62.0  Myles, Mr. Thomas Francis  male  62.0  Mirz, Mr. Albert  male  27.0  Hirvonen, Mrs. Alexander (Helga E Lindqvist)  female  22.0  Spector, Mr. Woolf  male  Name  Name  Name  N	0 892 3 1 893 3 2 894 2 3 895 3 4 896 3	0 892 3 1 893 3 2 894 2 3 895 3 4 896 3 413 1305 3 414 1306 1 415 1307 3 416 1308 3 417 1309 3  Name Sex Age SibSp Parch  Name SibSp Parch

	Ticket	Fare	Cabin	Embarked
0	330911	7.8292	NaN	Q
1	363272	7.0000	NaN	S
2	240276	9.6875	NaN	Q
3	315154	8.6625	NaN	S
4	3101298	12.2875	NaN	S
	•••			•
413	A.5. 3236	8.0500	NaN	S
414	PC 17758	108.9000	C105	C
415	SOTON/O.Q. 3101262	7.2500	NaN	S
416	359309	8.0500	NaN	S
417	2668	22.3583	NaN	C

# 2 Multiple Columns Rename

[78]:	tita	nic.rename(co	lumns={"Pclass":"	Passenger Class"	',"Sex":"	Gender	"})		
[78]:		PassengerId	Passenger Class	\					
	0	892	3						
	1	893	3						
	2	894	2						
	3	895	3						
	4	896	3						
		•••	•••						
	413	1305	3						
	414	1306	1						
	415	1307	3						
	416	1308	3						
	417	1309	3						
					~ ,	ā	aa		,
	•			Name	Gender	Age	-	Parch	\
	0			elly, Mr. James	male	34.5	0	0	
	1		Wilkes, Mrs. James				1	0	
	2		•	Thomas Francis	male		0	0	
	3			irz, Mr. Albert	male	27.0	0	0	
	4	Hirvonen, Mr	s. Alexander (Helg	ga E Lindqvist)	female	22.0	1	1	
	• •		_						
	413		-	ctor, Mr. Woolf	male	NaN	0	0	
	414		•	, Dona. Fermina		39.0	0	0	
	415			Simon Sivertsen	male	38.5	0	0	
	416			, Mr. Frederick	male	NaN	0	0	
	417		Peter, Mas	ster. Michael J	male	NaN	1	1	

```
Ticket
                                     Fare Cabin Embarked
      0
                         330911
                                   7.8292
                                             NaN
                                   7.0000
                                                         S
      1
                         363272
                                             NaN
      2
                                   9.6875
                                                         Q
                         240276
                                             NaN
      3
                        315154
                                   8.6625
                                             NaN
                                                         S
                       3101298
                                                         S
      4
                                  12.2875
                                             NaN
                                                         S
      413
                     A.5. 3236
                                   8.0500
                                             {\tt NaN}
                                                         С
      414
                      PC 17758
                                 108.9000
                                            C105
      415
           SOTON/O.Q. 3101262
                                   7.2500
                                             NaN
                                                         S
      416
                         359309
                                   8.0500
                                                         S
                                             NaN
      417
                           2668
                                  22.3583
                                             NaN
                                                         С
      [418 rows x 11 columns]
[83]: titanic["Sex"].unique()
[83]: array(['male', 'female'], dtype=object)
[85]: titanic["Sex"].value_counts()
[85]: male
                 266
      female
                 152
```

### 3 If we want to count the number of unique values

Name: Sex, dtype: int64

```
[86]: titanic["Sex"]
[86]: 0
                male
             female
      1
                male
      2
      3
                male
             female
      413
                male
      414
             female
               male
      415
      416
                male
                male
      417
      Name: Sex, Length: 418, dtype: object
[87]: titanic["Sex"].nunique()
[87]: 2
```

```
[92]: titanic["Pclass"].value_counts()
[92]: 3
           218
      1
            107
      2
            93
      Name: Pclass, dtype: int64
[90]: titanic["Pclass"].nunique()
[90]: 3
[89]: titanic
[89]:
           PassengerId Pclass
                                                                             Name \
      0
                    892
                                                                Kelly, Mr. James
      1
                    893
                               3
                                               Wilkes, Mrs. James (Ellen Needs)
      2
                    894
                               2
                                                      Myles, Mr. Thomas Francis
      3
                    895
                               3
                                                                Wirz, Mr. Albert
                                  Hirvonen, Mrs. Alexander (Helga E Lindqvist)
      4
                    896
                               3
                                                              Spector, Mr. Woolf
                   1305
      413
      414
                   1306
                               1
                                                   Oliva y Ocana, Dona. Fermina
                               3
      415
                                                   Saether, Mr. Simon Sivertsen
                   1307
                               3
      416
                   1308
                                                             Ware, Mr. Frederick
                               3
      417
                   1309
                                                       Peter, Master. Michael J
              Sex
                          SibSp
                                  Parch
                                                      Ticket
                                                                   Fare Cabin Embarked
                     Age
      0
             male
                    34.5
                               0
                                                      330911
                                                                 7.8292
                                      0
                                                                           NaN
                                                                                       Q
                                                                                       S
      1
           female
                   47.0
                                      0
                                                                 7.0000
                               1
                                                      363272
                                                                           NaN
      2
             male
                    62.0
                               0
                                      0
                                                      240276
                                                                 9.6875
                                                                           NaN
                                                                                       Q
                                                                                       S
      3
             male
                    27.0
                               0
                                                      315154
                                                                 8.6625
                                                                           NaN
           female 22.0
                                                                12.2875
                               1
                                      1
                                                     3101298
                                                                           NaN
                                                                                       S
      . .
                                                                     •••
                                                   A.5. 3236
                                                                                       S
      413
             male
                     NaN
                               0
                                      0
                                                                 8.0500
                                                                           NaN
                                                                                       С
      414 female
                   39.0
                               0
                                      0
                                                    PC 17758
                                                              108.9000
                                                                          C105
      415
                               0
                                      0
                                         SOTON/O.Q. 3101262
                                                                                       S
             male 38.5
                                                                 7.2500
                                                                           NaN
                               0
                                                                                       S
      416
             male
                                      0
                                                      359309
                                                                 8.0500
                     NaN
                                                                           NaN
                                                                                       C
      417
             male
                     NaN
                                      1
                                                         2668
                                                                22.3583
                                                                           NaN
      [418 rows x 11 columns]
```

#### 3.1 Deleting Columns

[99]:	ti	tanic.head(3)					
[99]:		PassengerId	Pclass	Name Sex	Age	SibSp	\
	0	892	3	Kelly, Mr. James male 3	4.5	0	

```
1
                    893
                                  Wilkes, Mrs. James (Ellen Needs)
                                                                        female
                                                                                 47.0
       2
                               2
                                          Myles, Mr. Thomas Francis
                                                                                             0
                    894
                                                                                 62.0
                                                                           male
           Parch
                  Ticket
                              Fare Cabin Embarked
       0
                   330911
                           7.8292
                                      NaN
                                                  Q
                                                  S
       1
               0
                   363272
                           7.0000
                                      NaN
       2
                   240276
                           9.6875
                                      NaN
                                                  Q
      titanic.drop("Pclass",axis=1)
[100]:
[100]:
             PassengerId
                                                                         Name
                                                                                         Age
                                                                                   Sex
       0
                      892
                                                           Kelly, Mr. James
                                                                                 male
                                                                                        34.5
                      893
       1
                                         Wilkes, Mrs. James (Ellen Needs)
                                                                               female
                                                                                        47.0
       2
                      894
                                                 Myles, Mr. Thomas Francis
                                                                                 male
                                                                                        62.0
       3
                      895
                                                           Wirz, Mr. Albert
                                                                                 male
                                                                                        27.0
       4
                      896
                           Hirvonen, Mrs. Alexander (Helga E Lindqvist)
                                                                               female
                                                                                        22.0
       . .
                      •••
                                                         Spector, Mr. Woolf
       413
                     1305
                                                                                 male
                                                                                         {\tt NaN}
       414
                                             Oliva y Ocana, Dona. Fermina
                     1306
                                                                               female
                                                                                        39.0
       415
                     1307
                                             Saether, Mr. Simon Sivertsen
                                                                                 male
                                                                                        38.5
       416
                     1308
                                                        Ware, Mr. Frederick
                                                                                 male
                                                                                         NaN
       417
                     1309
                                                  Peter, Master. Michael J
                                                                                 male
                                                                                         NaN
             SibSp
                     Parch
                                          Ticket
                                                        Fare Cabin Embarked
       0
                 0
                         0
                                          330911
                                                     7.8292
                                                               NaN
                                                                            Q
                                                                            S
       1
                 1
                         0
                                          363272
                                                     7.0000
                                                               NaN
       2
                 0
                         0
                                                                            Q
                                          240276
                                                     9.6875
                                                               NaN
       3
                 0
                         0
                                          315154
                                                     8.6625
                                                               NaN
                                                                            S
       4
                 1
                                         3101298
                                                    12.2875
                                                                            S
                         1
                                                               NaN
       413
                 0
                         0
                                       A.5. 3236
                                                     8.0500
                                                                            S
                                                               \tt NaN
                                                                            С
       414
                 0
                         0
                                        PC 17758
                                                   108.9000
                                                              C105
                                                                            S
       415
                 0
                         0
                             SOTON/O.Q. 3101262
                                                     7.2500
                                                               \tt NaN
       416
                 0
                         0
                                                                            S
                                          359309
                                                     8.0500
                                                               {\tt NaN}
                                                                            C
       417
                         1
                                            2668
                                                    22.3583
                                                               NaN
```

#### We can drop the nultiple columns

```
[101]: titanic.drop(["Age","Sex"],axis=1)
```

\	SibSp	Name	Pclass	PassengerId	[101]:
	0	Kelly, Mr. James	3	892	0
	1	Wilkes, Mrs. James (Ellen Needs)	3	893	1
	0	Myles, Mr. Thomas Francis	2	894	2
	0	Wirz, Mr. Albert	3	895	3

4	896 3 Hirvo	onen, Mrs.	Alexander (Helga E Lindqvi	.st) 1
				•••
413	1305 3		Spector, Mr. Wo	oolf 0
414	1306 1		Oliva y Ocana, Dona. Ferm	nina 0
415	1307 3		Saether, Mr. Simon Sivert	
416	1308 3		Ware, Mr. Freder	rick 0
417	1309 3		Peter, Master. Michae	el J 1
		_		
Parch	Ticket	Fare	Cabin Embarked	
0 0	330911	7.8292	NaN Q	
1 0	363272	7.0000	NaN S	
2 0	240276	9.6875	NaN Q	
3 0	315154	8.6625	NaN S	
4 1	3101298	12.2875	NaN S	
			•••	
413 0	A.5. 3236	8.0500	NaN S	
414 0	PC 17758	108.9000	C105 C	
415 0	SOTON/O.Q. 3101262	7.2500	NaN S	
416 0	359309	8.0500	NaN S	
417 1	2668	22.3583	NaN C	

#### We can also drop the columns by indexing

[103]: titanic.drop(titanic.columns[1],axis=1) [103]: PassengerId Name Sex Age 34.5 0 892 Kelly, Mr. James male 1 893 Wilkes, Mrs. James (Ellen Needs) 47.0 female 2 Myles, Mr. Thomas Francis 894 male 62.0 3 895 Wirz, Mr. Albert male 27.0 4 896 Hirvonen, Mrs. Alexander (Helga E Lindqvist) female 22.0 . . ••• Spector, Mr. Woolf 413 1305 male  ${\tt NaN}$ 414 1306 Oliva y Ocana, Dona. Fermina female 39.0 Saether, Mr. Simon Sivertsen 415 1307 male 38.5 Ware, Mr. Frederick 416 1308 male  ${\tt NaN}$ Peter, Master. Michael J 417 1309 male NaNSibSp Parch Ticket Fare Cabin Embarked 0 0 0 330911 7.8292 NaN Q 1 1 0 363272 7.0000 NaN S 2 0 0 240276 9.6875 NaN Q 3 0 0 S 315154 8.6625 NaN S 4 1 1 3101298 12.2875 NaN

413	0	0	A.5. 3236	8.0500	NaN	S
414	0	0	PC 17758	108.9000	C105	C
415	0	0	SOTON/O.Q. 3101262	7.2500	NaN	S
416	0	0	359309	8.0500	NaN	S
417	1	1	2668	22.3583	NaN	C

```
[107]: titanic.drop(titanic.columns[0:2],axis=1)
```

[107]:					Name	Sex	Age	SibSp	Parch	\
	0		I	Kelly,	Mr. James	male	34.5	0	0	
	1	Wilkes,		•	en Needs)		47.0	1	0	
	2				as Francis	male		0	0	
	3		•		Mr. Albert	male	27.0	0	0	
	4	Hirvonen, Mrs. Alex	ander (He	lga E I	Lindqvist)	female	22.0	1	1	
		·		Ü			•••			
	413		Spe	ector,	Mr. Woolf	male	NaN	0	0	
	414	Oli	va y Ocana	a, Dona	a. Fermina	female	39.0	0	0	
	415		•		Sivertsen	male	38.5	0	0	
	416		Ware	e, Mr.	Frederick	male	NaN	0	0	
	417		Peter, Ma	aster.	Michael J	male	NaN	1	1	
		Ticket	Fare	Cabin	Embarked					
	0	330911	7.8292	NaN	Q					
	1	363272	7.0000	NaN	S					
	2	240276	9.6875	NaN	Q					
	3	315154	8.6625	NaN	S					
	4	3101298	12.2875	NaN	S					
		•••								
	413	A.5. 3236	8.0500	NaN	S					
	414	PC 17758	108.9000	C105	C					
	415	SOTON/O.Q. 3101262	7.2500	NaN	S					
	416	359309	8.0500	NaN	S					
	417	2668	22.3583	NaN	C					

[418 rows x 9 columns]

# [109]: titanic.drop(titanic.columns[2:5],axis=1)

[109]:	PassengerId	Pclass	SibSp	Parch	Ticket	Fare	Cabin \
0	892	3	0	0	330911	7.8292	NaN
1	893	3	1	0	363272	7.0000	NaN
2	894	2	0	0	240276	9.6875	NaN
3	895	3	0	0	315154	8.6625	NaN
4	896	3	1	1	3101298	12.2875	NaN

413	1305	3	0	0	A.5. 3236	8.0500	NaN
414	1306	1	0	0	PC 17758	108.9000	C105
415	1307	3	0	0	SOTON/O.Q. 3101262	7.2500	NaN
416	1308	3	0	0	359309	8.0500	NaN
417	1309	3	1	1	2668	22.3583	NaN

Embarked 0 S 1 2 Q S 3 S . . 413 S 414 С S 415 S 416 С 417

[418 rows x 8 columns]

### 4 Deleting a Row

```
[110]: titanic.head(3)
[110]:
          PassengerId Pclass
                                                              Name
                                                                       Sex
                                                                              Age
                                                                                  SibSp
                                                 Kelly, Mr. James
       0
                                                                                       0
                  892
                             3
                                                                      male
                                                                            34.5
       1
                  893
                             3
                                Wilkes, Mrs. James (Ellen Needs)
                                                                    female
                                                                            47.0
                             2
                  894
                                       Myles, Mr. Thomas Francis
                                                                            62.0
                                                                      male
          Parch Ticket
                            Fare Cabin Embarked
       0
                 330911
                         7.8292
                                   NaN
       1
                 363272
                         7.0000
                                   NaN
                                               S
                 240276
                         9.6875
                                   NaN
                                               Q
[114]: titanic.drop(0,axis=0)
[114]:
                                                                            Name
            PassengerId Pclass
       1
                    893
                               3
                                               Wilkes, Mrs. James (Ellen Needs)
       2
                    894
                               2
                                                      Myles, Mr. Thomas Francis
                                                                Wirz, Mr. Albert
       3
                    895
                               3
       4
                    896
                                  Hirvonen, Mrs. Alexander (Helga E Lindqvist)
                                                     Svensson, Mr. Johan Cervin
       5
                    897
                               3
                                                              Spector, Mr. Woolf
       413
                    1305
       414
                    1306
                               1
                                                   Oliva y Ocana, Dona. Fermina
```

415		1307	3		Saether, M	lr. Simon S	Siverts	sen
416		1308	3		W	are, Mr. 1	Frederi	ck
417		1309	3		Peter,	Master. 1	Michael	J
	Sex	Age	SibSp	Parch	Ticket	Fare	Cabin	${\tt Embarked}$
1	female	47.0	1	0	363272	7.0000	NaN	S
2	male	62.0	0	0	240276	9.6875	NaN	Q
3	male	27.0	0	0	315154	8.6625	NaN	S
4	female	22.0	1	1	3101298	12.2875	NaN	S
5	male	14.0	0	0	7538	9.2250	NaN	S
	•••		•••					
413	${\tt male}$	NaN	0	0	A.5. 3236	8.0500	NaN	S
414	female	39.0	0	0	PC 17758	108.9000	C105	C
415	male	38.5	0	0	SOTON/O.Q. 3101262	7.2500	NaN	S
416	male	NaN	0	0	359309	8.0500	NaN	S
417	male	NaN	1	1	2668	22.3583	NaN	С

# [116]: titanic.drop([2,3,5,7,9],axis=0)

[116]:	Passeng	gerId	Pclass				Name	e \
0		892	3			Kelly, M	r. James	3
1		893	3		Wilkes, Mrs. J	ames (Elle	n Needs)	)
4		896	3	Hirvon	en, Mrs. Alexander (	Helga E Li	ndqvist)	)
6		898	3		Co	nnolly, Mi	ss. Kate	Э
8		900	3	Abr	ahim, Mrs. Joseph (S	ophie Hala	ut Easu)	)
		•••					•••	
413		1305	3			Spector, M	r. Wooli	f
414		1306	1		Oliva y Oc	ana, Dona.	Fermina	a.
415		1307	3		Saether, M	r. Simon S	ivertser	1
416		1308	3		W	are, Mr. F	rederic	Σ
417		1309	3		Peter,	Master. M	ichael .	J
	<b>a</b>		a : 1 a	ъ.	m. 1 .	-	a 1	
	Sex	Age	SibSp	Parch	Ticket		Cabin En	
0	male	34.5	0	0	330911	7.8292	NaN	Q
1	female	47.0	1	0	363272	7.0000	NaN	S
4		22.0	1	1	3101298	12.2875	NaN	S
6	female		0	0	330972	7.6292	NaN	Q
8	female	18.0	0	0	2657	7.2292	NaN	С
	•••		• ••					
413	male	NaN	0	0	A.5. 3236	8.0500	NaN	S
414	female	39.0	0	0	PC 17758	108.9000	C105	С
415	male	38.5	0	0	SOTON/O.Q. 3101262	7.2500	NaN	S
416	${\tt male}$	NaN	0	0	359309	8.0500	NaN	S
417	${\tt male}$	NaN	1	1	2668	22.3583	NaN	С

[413 rows x 11 columns]

[119]:	tita	nic[tita	nic["	Age"] !=	"male"]				
[119]:		Passeng	gerId	Pclass				Na	ame \
	0		892	3			Kelly, N	Mr. Jan	nes
	1		893	3		Wilkes, Mrs. J	ames (Elle	en Need	ls)
	2		894	2		Myles,	Mr. Thomas	Franc	cis
	3		895	3			Wirz, M	c. Albe	ert
	4		896	3	Hirvone	n, Mrs. Alexander (	Helga E L	indqvis	st)
			•••	•••				•••	
	413		1305	3			Spector, N	1r. Woo	olf
	414		1306	1		Oliva y Oc	ana, Dona	. Fermi	ina
	415		1307	3		Saether, M	Ir. Simon S	Siverts	sen
	416		1308	3		W	Mare, Mr. I	rederi	lck
	417		1309	3		Peter,	Master. N	/lichael	J
		Sex	Age	SibSp	Parch	Ticket	Fare	${\tt Cabin}$	Embarked
	0	male	34.5	0	0	330911	7.8292	NaN	Q
	1	female	47.0	1	0	363272	7.0000	NaN	S
	2	male	62.0	0	0	240276	9.6875	NaN	Q
	3	male	27.0	0	0	315154	8.6625	NaN	S
	4	female	22.0	1	1	3101298	12.2875	NaN	S
		•••							
	413	male	NaN	0	0	A.5. 3236	8.0500	NaN	S
	414	female	39.0	0	0	PC 17758	108.9000	C105	C
	415	male	38.5	0	0	SOTON/O.Q. 3101262	7.2500	NaN	S
	416	male	NaN	0	0	359309	8.0500	NaN	S
	417	male	NaN	1	1	2668	22.3583	NaN	С

# 5 You want to drop duplicated rows from you'r DataFrame

	$\overline{}$								
[130]:	titanic.drop_duplicates()								
[130]:		PassengerId	Pclass	Name	\				
	0	892	3	Kelly, Mr. James					
	1	893	3	Wilkes, Mrs. James (Ellen Needs)					
	2	894	2	Myles, Mr. Thomas Francis					
	3	895	3	Wirz, Mr. Albert					
	4	896	3	Hirvonen, Mrs. Alexander (Helga E Lindqvist)					
		•••		•••					
	413	1305	3	Spector, Mr. Woolf					
	414	1306	1	Oliva y Ocana, Dona. Fermina					
	415	1307	3	Saether, Mr. Simon Sivertsen					

```
416
                    1308
                                3
                                                              Ware, Mr. Frederick
       417
                    1309
                                3
                                                         Peter, Master. Michael J
                Sex
                      Age
                           SibSp
                                   Parch
                                                        Ticket
                                                                     Fare Cabin Embarked
       0
              male
                     34.5
                                0
                                        0
                                                        330911
                                                                   7.8292
                                                                             NaN
                                                                                         Q
                     47.0
                                                                   7.0000
                                                                                         S
       1
            female
                                1
                                        0
                                                        363272
                                                                             NaN
       2
              male
                     62.0
                                0
                                        0
                                                        240276
                                                                   9.6875
                                                                             NaN
                                                                                         Q
       3
                                                                                         S
              male 27.0
                                0
                                        0
                                                        315154
                                                                   8.6625
                                                                             NaN
                                                                                         S
       4
                     22.0
            female
                                1
                                        1
                                                       3101298
                                                                  12.2875
                                                                            NaN
                                                     A.5. 3236
                                                                   8.0500
                                                                                         S
       413
              male
                      NaN
                                0
                                        0
                                                                             NaN
       414
            female
                     39.0
                                0
                                        0
                                                      PC 17758
                                                                108.9000
                                                                            C105
                                                                                         С
       415
              male
                     38.5
                                0
                                        0
                                           SOTON/O.Q. 3101262
                                                                   7.2500
                                                                            NaN
                                                                                         S
       416
              male
                      NaN
                                0
                                        0
                                                        359309
                                                                   8.0500
                                                                             NaN
                                                                                         S
       417
              male
                                        1
                                                                                         С
                      NaN
                                1
                                                          2668
                                                                  22.3583
                                                                             NaN
       [418 rows x 11 columns]
[134]:
      titanic.nunique()
[134]: PassengerId
                       418
       Pclass
                          3
       Name
                       418
       Sex
                          2
                        79
       Age
                         7
       SibSp
       Parch
                         8
       Ticket
                       363
       Fare
                       169
       Cabin
                        76
       Embarked
                          3
       dtype: int64
      Drop duplicates values in the perticular columns
[135]:
      titanic.drop_duplicates(subset=["Sex"])
[135]:
          PassengerId Pclass
                                                                Name
                                                                                     SibSp
                                                                         Sex
                                                                                Age
       0
                   892
                                                   Kelly, Mr. James
                                                                                          0
                              3
                                                                               34.5
                                                                        male
       1
                   893
                              3
                                 Wilkes, Mrs. James (Ellen Needs)
                                                                      female
                                                                               47.0
                                                                                          1
                             Fare Cabin Embarked
          Parch
                 Ticket
       0
                  330911
                          7.8292
                                    NaN
                                                Q
       1
                         7.0000
                                                S
                  363272
                                    NaN
```

[136]: titanic.drop\_duplicates(subset="Pclass")

```
[136]: PassengerId Pclass
                                                      Sex Age SibSp Parch \
                                                Name
                              Kelly, Mr. James male 34.5
      0
                 892
                         3
                                                                    0
                                                                          0
                 894
                         2 Myles, Mr. Thomas Francis male 62.0
                                                                          0
      2
                                                                    0
                         1 Jones, Mr. Charles Cresson male 46.0
      11
                 903
                                                                    0
                                                                          0
         Ticket
                 Fare Cabin Embarked
         330911 7.8292
                         NaN
         240276
                                   Q
      2
                9.6875
                         {\tt NaN}
                                   S
      11 694 26.0000
                         NaN
 []:
```