```
import pandas as pd
df=pd.read_csv("Loan_data.csv")
print(df)
          Loan_ID Gender Married Dependents
                                                Education Self_Employed \
 С→
          LP001015
                                                Graduate
                   Male
                             Yes
                                                                     No
     1
          LP001022
                    Male
                             Yes
                                                 Graduate
                                          1
                                                                     No
     2
          LP001031
                                                 Graduate
                    Male
                             Yes
                                                                     No
     3
          LP001035
                                                 Graduate
                    Male
                             Yes
                                                                     No
     4
         LP001051
                                         0 Not Graduate
                    Male
                             No
                                                                     No
                              ...
     362
         LP002971
                    Male
                             Yes
                                         3+
                                            Not Graduate
                                                                    Yes
     363
         LP002975
                    Male
                             Yes
                                          0
                                                 Graduate
                                                                     No
     364
          LP002980
                    Male
                              No
                                          0
                                                 Graduate
                                                                     No
     365
         LP002986
                    Male
                                                 Graduate
                                                                     No
                              Yes
     366
          LP002989
                    Male
                                                 Graduate
                                                                    Yes
          ApplicantIncome CoapplicantIncome
                                             LoanAmount Loan_Amount_Term
     0
                     5720
                                                  110.0
                                                                    360.0
                                       1500
                     3076
                                                  126.0
                                                                    360.0
     1
                                                                    360.0
     2
                     5000
                                       1800
                                                  208.0
     3
                     2340
                                       2546
                                                  100.0
                                                                    360.0
     4
                     3276
                                         0
                                                   78.0
                                                                    360.0
     362
                     4009
                                       1777
                                                  113.0
                                                                    360.0
     363
                     4158
                                        709
                                                  115.0
                                                                    360.0
                     3250
                                       1993
                                                                    360.0
     364
                                                  126.0
     365
                     5000
                                       2393
                                                  158.0
                                                                    360.0
                                                                    180.0
                     9200
                                                   98.0
     366
                                          a
          Credit_History Property_Area
     0
                    1.0
                                Urban
     1
                    1.0
                                Urban
     2
                    1.0
                                Urban
     3
                    NaN
                                Urban
     4
                    1.0
                                Urban
     362
                    1.0
                                Urban
     363
                                Urban
                    1.0
                            Semiurban
     364
                    NaN
     365
                    1.0
                                Rural
                                Rural
     366
                    1.0
     [367 rows x 12 columns]
```

df.head(5)

	Loan_ID	Gender	Married	Dependents	Education	Self_Employed	ApplicantIncome	CoapplicantIncome
0	LP001015	Male	Yes	0	Graduate	No	5720	0
1	LP001022	Male	Yes	1	Graduate	No	3076	1500
2	LP001031	Male	Yes	2	Graduate	No	5000	1800
3	LP001035	Male	Yes	2	Graduate	No	2340	2546
4	LP001051	Male	No	0	Not Graduate	No	3276	0



df.tail(5)

	Loan_ID	Gender	Married	Dependents	Education	Self_Employed	ApplicantIncome	CoapplicantIncon
362	LP002971	Male	Yes	3+	Not Graduate	Yes	4009	177
363	LP002975	Male	Yes	0	Graduate	No	4158	70
364	LP002980	Male	No	0	Graduate	No	3250	199
365	LP002986	Male	Yes	0	Graduate	No	5000	239
366	LP002989	Male	No	0	Graduate	Yes	9200	



df.describe()

,				9	<b>,</b>	
	ApplicantIncome	CoapplicantIncome	LoanAmount	Loan_Amount_Term	Credit_History	1
count	367.000000	367.000000	362.000000	361.000000	338.000000	
mean	4805.599455	1569.577657	136.132597	342.537396	0.825444	
std	4910.685399	2334.232099	61.366652	65.156643	0.380150	
min	0.000000	0.000000	28.000000	6.000000	0.000000	
25%	2864.000000	0.000000	100.250000	360.000000	1.000000	
50%	3786.000000	1025.000000	125.000000	360.000000	1.000000	
75%	5060.000000	2430.500000	158.000000	360.000000	1.000000	
<pre>max .info()</pre>	72529.000000	24000.000000	550.000000	480.000000	1.000000	
RangeI Data co # Co  0 Lo 1 Go	'pandas.core.fra ndex: 367 entries olumns (total 12 olumn oan_ID ender arried	, 0 to 366 columns): Non-Null Count Dt	ype  ject ject ject			
3 D: 4 E: 5 S: 6 A: 7 C: 8 L: 9 L: 10 C: 11 P:	empendents ducation elf_Employed pplicantIncome oapplicantIncome oan_Amount redit_History roperty_Area : float64(3), int usage: 34.5+ KB	357 non-null ob 367 non-null ob 344 non-null in 367 non-null in 367 non-null fl 362 non-null fl 363 non-null fl 364 non-null ob	ject ject ject t64 t64 oat64 oat64 oat64 ject			
.isnull()	.sum()					
Applic Coappl LoanAm Loan_A Credit	11 d 0 ents 10 ion 0 mployed 23 antIncome 0 icantIncome 5 mount 5 mount_Term 6 _History 29 ty_Area 0					
f=df[~df.dr int(df)	uplicated()]					
0 L 1 L 2 L 3 L 4 L 	Loan_ID Gender Ma P001015 Male P001022 Male P001031 Male P001035 Male P001051 Male P002971 Male P002975 Male	Yes 0 Yes 1 Yes 2 Yes 2 No 0 N	Education Graduate Graduate Graduate Graduate ot Graduate ot Graduate Graduate	Self_Employed \ No		
364 L	P002980 Male	No 0	Graduate	No		
	P002986 Male P002989 Male	Yes 0 No 0	Graduate Graduate	No Yes		
A 0 1 2 3 4 362 363 364 365	pplicantIncome C 5720 3076 5000 2340 3276  4009 4158 3250 5000	oapplicantIncome L 0 1500 1800 2546 0  1777 709 1993 2393	oanAmount L 110.0 126.0 208.0 100.0 78.0 113.0 115.0 126.0 158.0	oan_Amount_Term \ 360.0 360.0 360.0 360.0 360.0 360.0 360.0 360.0		
366	9200	2333	98.0	360.0 180.0		
C 0	redit_History Pro 1.0	perty_Area Urban				
1 2	1.0	Urban				
2	1.0	Urban				

```
NaN
                           Urban
4
               1.0
                           Urban
362
               1.0
                           Urban
363
                           Urban
               1.0
364
                       Semiurban
               NaN
365
                           Rural
               1.0
                           Rural
366
               1.0
```

[367 rows x 12 columns]

```
df['Gender'].fillna(value=df['Gender'].mode())
```

```
Male
       Male
1
2
      Male
3
       Male
      Male
362
      Male
363
      Male
364
      Male
365
      Male
```

Name: Gender, Length: 367, dtype: object

```
df['LoanAmount'].fillna(value=df['LoanAmount'].median())
```

```
0
       110.0
1
       126.0
2
       208.0
3
       100.0
       78.0
362
      113.0
363
      115.0
364
      126.0
365
       158.0
       98.0
366
```

Name: LoanAmount, Length: 367, dtype: float64

Colab paid products - Cancel contracts here

✓ 0s completed at 10:35 AM

• ×