```python
import pandas as pd
data = pd.read_csv(r"/content/file.csv")
```

```python
data.head()
```

	District_code	State_name	District_name	Population	Male	Female	Literate	Workers	Male_Workers	Female_Workers	...	Christians	Sikhs	Buddhists	Jains	Secondary_Education	Higher_Education	Graduate_Education	Age_Group_0_29	Age_Group_30_49	Age_Group_50	
0	1	JAMMU AND KASHMIR	Kupwara	870354	474190	396164	439654	229064	190899	38165	...	1700	5600	66	39	74948	39709	21751	600759	178435	89679	
1	2	JAMMU AND KASHMIR	Badgam	753745	398041	355704	335649	214866	162578	52288	...	1489	5559	47	6	66459	41367	27950	503223	160933	88978	
2	3	JAMMU AND KASHMIR	Leh(Ladakh)	133487	78971	54516	93770	75079	53265	21814	...	658	1092	88635	103	16265	8923	6197	70703	41515	21019	
3	4	JAMMU AND KASHMIR	Kargil	140802	77785	63017	86236	51873	39839	12034	...	604	1171	20126	28	16938	9826	3077	87532	35561	17488	
4	5	JAMMU AND KASHMIR	Punch	476835	251899	224936	261724	161393	117677	43716	...	958	11188	83	10	46062	29517	13962	304979	109818	61334	

5 rows × 25 columns

```python
#hiding of index column
```

```python
data.style.hide_index()
```

	State_name	District_name	Population	Male	Female	Literate	Workers	Male_Workers	Female_Workers	Cultivator_Workers	Agricultural_Workers	Household_Workers	Hindus	Muslims	Christians	Sikhs	Buddhists	Jains	Secondary_Education	Higher_Education	Graduate_Education	Age_Group_0_29	Age_Group_30_49	Age_Group_50
613	TAMIL NADU	Karur	1064493	528184	536309	727044	543298	329034	214264	85872	200837	11340	993666	53292	16483	115	29	7	146666	77874	85595	501585	320645
614	TAMIL NADU	Tiruchirappalli	2722290	1352284	1370006	2038981	1213979	789206	424773	170669	378782	30388	2279413	190984	246156	324	250	628	418930	223178	291506	1346661	797258
615	TAMIL NADU	Perambalur	565223	282157	283066	375823	299726	162639	137087	117304	118278	5343	521658	32702	10301	83	39	38	71650	41447	44025	291371	158218
616	TAMIL NADU	Ariyalur	754894	374703	380191	480604	359851	212547	147304	107312	166837	13564	708397	7942	37403	104	88	65	96880	53934	57524	380484	216103
617	TAMIL NADU	Cuddalore	2605914	1311697	1294217	1815261	1169880	749633	420247	165170	539412	32027	2391675	123749	83334	401	236	1280	386652	186394	227530	1364411	764669
618	TAMIL NADU	Nagapattinam	1616450	798127	818323	1213008	671994	461174	210820	67482	345057	11555	1435072	128617	47579	184	450	963	249630	122350	125639	828444	483326
619	TAMIL NADU	Thiruvarur	1264277	626693	637584	946471	540168	369853	170315	69983	295188	10440	1132785	96092	33192	258	151	279	203450	103908	99082	627880	377118
620	TAMIL NADU	Thanjavur	2405890	1182416	1223474	1790998	974079	680483	293596	125913	415361	31200	2075670	190814	133971	231	795	1256	373111	178126	222410	1193095	712017
621	TAMIL NADU	Pudukkottai	1618345	803188	815157	1110545	761693	471099	290594	209270	305149	13941	1428784	114194	72850	119	81	32	251855	121706	111731	835853	470428
622	TAMIL NADU	Sivaganga	1339101	668672	670429	959744	620171	391305	228866	141003	199563	14656	1186078	74310	75481	150	80	109	199263	103903	115894	666218	391356
623	TAMIL NADU	Madurai	3038252	1526475	1511777	2273430	1354632	902704	451928	92719	372828	47293	2760502	168881	97711	520	199	1532	453509	250285	363152	1528178	913715
624	TAMIL NADU	Theni	1245899	625683	620216	870080	591642	368900	222742	38367	315161	14939	1148990	56751	37574	152	79	28	156676	95231	101147	618923	373564
625	TAMIL NADU	Virudhunagar	1942286	967709	974579	1398786	950158	579111	371047	57153	206702	35298	1822626	47836	67405	245	87	98	230321	138306	167506	967538	575006
626	TAMIL NADU	Ramanathapuram	1353445	682658	670787	978946	602977	392751	210226	173767	153874	25228	1047411	208038	91139	154	86	39	189132	105978	97405	708322	389764
627	TAMIL NADU	Thoothukkudi	1750176	865021	885155	1349697	748095	503727	244368	48515	200644	22863	1373920	80740	291908	127	286	53	227154	133010	155613	867717	499377
628	TAMIL NADU	Tirunelveli	3077233	1520912	1556321	2273457	1436454	876175	560279	115715	379763	239664	2425630	303368	342254	268	373	144	390485	220088	247635	1054277	876129
629	TAMIL NADU	Kanniyakumari	1870374	926345	944029	1548736	679620	524629	154991	15610	72867	35789	909672	876299	876299	160	438	156	322511	226312	254107	887052	556548
630	TAMIL NADU	Dharmapuri	1506843	774303	732540	917709	751170	446057	305113	201328	267345	15341	1452956	38304	14089	164	39	37	177877	103367	112592	804186	434328
631	TAMIL NADU	Krishnagiri	1879809	960232	919577	1187958	877779	561634	316145	236038	263328	21918	1723737	115303	35956	466	151	373	276694	133744	137081	1034474	533183
632	TAMIL NADU	Coimbatore	3458045	1729297	1728748	2635907	1567950	1083125	484825	80217	230026	50085	3044145	211035	190314	1112	435	3284	526165	273098	440520	1579517	1117221
633	TAMIL NADU	Tiruppur	2479052	1246159	1232893	1760566	1266137	819763	446354	135817	246333	40988	2278835	123983	70015	455	198	371	298835	170870	179733	1177987	794639
634	PONDICHERRY	Yanam	55626	27301	28325	39274	16760	14047	2713	291	3324	146	53537	1191	873	3	1	4	8044	4101	3836	31973	15235
635	PONDICHERRY	PONDICHERRY	950289	468258	482031	726649	348105	256652	91453	9393	51908	6350	855294	32674	58326	245	366	1328	152482	81519	134067	473705	299746
636	PONDICHERRY	Mahe	41816	19143	22673	36470	11802	9093	2709	43	82	69	27940	12856	958	3	21	14	8773	5711	4475	19760	12543
637	PONDICHERRY	Karaikal	200222	97809	102413	154916	68301	53139	15162	2372	13077	1327	152638	28635	18391	46	63	54	29456	15930	18998	102333	60089
638	ANDAMAN AND NICOBAR ISLANDS	Nicobars	36842	20727	16115	25332	17125	12714	4411	322	242	2560	8681	1336	26077	343	119	0	6325	3668	1300	18786	12088
639	ANDAMAN AND NICOBAR ISLANDS	North AND Middle Andaman	105597	54861	50736	78683	38579	30612	7987	10727	1915	260	81163	2165	21870	77	84	4	12707	10042	5133	57350	30741
640	ANDAMAN AND NICOBAR ISLANDS	South Andaman	238142	127283	110859	190286	96831	77563	19268	5518	2624	907	174452	28912	33037	866	135	27	42150	29910	22388	128402	76332

✓ 0s completed at 12:58 AM

```python
#giving caption to the dataset
```

```python
data.style.set_caption('INDIA CENSUS DATASET')
```

INDIA CENSUS DATASET

	District_code	State_name	District_name	Population	Male	Female	Literate	Workers	Male_Workers	Female_Workers	Cultivator_Workers	Agricultural_Workers	Household_Workers	Hindus	Muslims	Christians	Sikhs	Buddhists	Jains	Secondary_Education	Higher_Education	Graduate_Education	Age_Group_0_29	Age_Group_3
0	1	JAMMU AND KASHMIR	Kupwara	870354	474190	396164	439654	229064	190899	38165	34680	56759	7946	37128	823286	1700	5600	66	39	74948	39709	21751	600759	
1	2	JAMMU AND KASHMIR	Badgam	753745	398041	355704	335649	214866	162578	52288	55299	36630	29102	10110	736054	1489	5559	47	6	66459	41367	27950	503223	
2	3	JAMMU AND KASHMIR	Leh(Ladakh)	133487	78971	54516	93770	75079	53265	21814	20869	1645	1020	22882	19057	658	1092	88635	103	16265	8923	6197	70703	
3	4	JAMMU AND KASHMIR	Kargil	140802	77785	63017	86236	51873	39839	12034	8268	3763	1222	10341	108239	604	1171	20126	28	16938	9826	3077	87532	
4	5	JAMMU AND KASHMIR	Punch	476835	251899	224936	261724	161393	117677	43716	54264	31583	3930	32624	431279	958	11188	83	10	46062	29517	13962	304979	
5	6	JAMMU AND KASHMIR	Rajouri	642415	345351	297064	364109	290912	184752	106160	136527	24016	4656	221880	402879	983	15513	189	26	65921	35804	18576	404803	
6	7	JAMMU AND KASHMIR	Kathua	616435	326109	290326	389204	200431	161548	38883	69533	21566	3952	540063	64234	1828	9551	24	16	91522	47694	24330	357864	
7	8	JAMMU AND KASHMIR	Baramula	1008039	534733	473306	545149	304200	249581	54619	57495	62246	15084	30621	959185	1497	14770	140	29	107837	57932	48285	636624	
8	9	JAMMU AND KASHMIR	Bandipore	392232	207680	184552	185979	149317	101380	47937	28232	32882	20484	8439	382006	572	555	44	17	35630	18644	12721	252378	
9	10	JAMMU AND KASHMIR	Srinagar	1236829	651124	585705	748584	407188	333151	74037	12228	10408	20095	42540	1177342	2746	12187	285	74	176409	132727	121856	693238	
10	11	JAMMU AND KASHMIR	Ganderbal	297446	158720	138726	143276	100890	73305	27585	15337	19312	7630	5592	290581	406	486	25	8	28247	15005	9633	194165	
11	12	JAMMU AND KASHMIR	Pulwama	560440	293064	267376	293958	188420	138428	49992	49746	34080	10615	13840	535158	1109	9440	35	6	67368	40931	31286	342601	
12	13	JAMMU AND KASHMIR	Shupiyan	266215	136480	129735	136500	87211	63931	23790	47424	10835	3395	3116	262263	429	178	6	1	28617	16501	10782	170086	
13	14	JAMMU AND KASHMIR	Anantnag	1078692	559767	518925	545532	389684	244032	145652	140957	76364	16322	13180	1057005	1449	6140	55	7	97121	52407	41570	704145	
14	15	JAMMU AND KASHMIR	Kulgam	424483	217620	206863	209085	159990	102317	57673	69173	29928	6193	4267	418076	460	1035	27	25	45383	24214	18240	266858	
15	16	JAMMU AND KASHMIR	Doda	409936	213641	196295	219063	151912	101144	50768	69947	12199	1932	187621	220614	472	422	21	22	48359	31416	12647	263576	
16	17	JAMMU AND KASHMIR	Ramban	283713	149132	134581	124065	87212	68476	18736	41394	8810	2538	81026	200516	414	753	43	3	22591	13331	4923	186626	
17	18	JAMMU AND KASHMIR	Kishtwar	230696	120165	110531	107506	82974	56779	26195	39271	16296	1186	93931	133225	277	450	2094	3	19550	14521	5438	145931	
18	19	JAMMU AND KASHMIR	Udhampur	554985	296784	258201	322354	243672	163845	79827	113020	11396	2641	489044	59771	1962	3418	106	57	55024	29657	17345	339145	
		JAMMU AND																						

```python
#record related to the districts
```

```python
data[data['District_name'].isin(['New Delhi','Lucknow','Jaipur'])]
```

	District_code	State_name	District_name	Population	Male	Female	Literate	Workers	Male_Workers	Female_Workers	...	Christians	Sikhs	Buddhists	Jains	Secondary_Education	Higher_Education	Graduate_Education	Age_Group_0_29	Age_Group_30_49	Age_Group_50	
93	94	NCT OF DELHI	New Delhi	142004	77942	64062	114179	59541	46940	12601	...	4852	2933	312	679	15942	17742	23934	79076	43913	21773	
109	110	RAJASTHAN	Jaipur	6626178	3468507	3157671	4300965	2464893	1714947	749946	...	12708	18782	1020	81079	659389	455527	703673	4091148	1646480	884057	
156	157	UTTAR PRADESH	Lucknow	4589838	2394476	2195362	3127260	1542806	1226399	316407	...	20493	23883	3877	4975	428121	378742	639260	2678289	1161686	685258	

3 rows × 25 columns

```python
#calculate state wise:
#total number of population
#total number of population with different religions
```

```python
[13] data.groupby('State_name').Population.sum().sort_values()
```

```
State_name
LAKSHADWEEP                        64473
DAMAN AND DIU                     243247
DADRA AND NAGAR HAVELI           343709
ANDAMAN AND NICOBAR ISLANDS      380581
SIKKIM                           610577
CHANDIGARH                      1055450
MIZORAM                         1097206
PONDICHERRY                     1247953
ARUNACHAL PRADESH               1383727
GOA                             1458545
NAGALAND                        1978502
MANIPUR                         2855794
MEGHALAYA                       2966889
TRIPURA                         3673917
HIMACHAL PRADESH                6864602
UTTARAKHAND                    10086292
JAMMU AND KASHMIR              12541302
NCT OF DELHI                   16787941
HARYANA                        25351462
CHHATTISGARH                   25545198
PUNJAB                         27743338
ASSAM                          31205576
JHARKHAND                      32988134
KERALA                         33406061
ORISSA                         41974218
GUJARAT                        60439692
KARNATAKA                      61095297
RAJASTHAN                      68548437
TAMIL NADU                     72147030
MADHYA PRADESH                 72626809
ANDHRA PRADESH                 84580777
WEST BENGAL                    91276115
BIHAR                         104099452
MAHARASHTRA                   112374333
UTTAR PRADESH                 199812341
Name: Population, dtype: int64
```

```python
[14] data.columns
```

```
Index(['District_code', 'State_name', 'District_name', 'Population', 'Male',
       'Female', 'Literate', 'Workers', 'Male_Workers', 'Female_Workers',
       'Cultivator_Workers', 'Agricultural_Workers', 'Household_Workers',
       'Hindus', 'Muslims', 'Christians', 'Sikhs', 'Buddhists', 'Jains',
       'Secondary_Education', 'Higher_Education', 'Graduate_Education',
       'Age_Group_0_29', 'Age_Group_30_49', 'Age_Group_50'],
      dtype='object')
```

```python
data.groupby('State_name')['Hindus', 'Muslims', 'Christians', 'Sikhs', 'Buddhists', 'Jains'].sum().sort_values(by='Hindus')
```

```
<ipython-input-17-7b004a003f06>:1: FutureWarning: Indexing with multiple keys (implicitly converted to a tuple of keys) will be deprecated, use a list instead.
  data.groupby('State_name')['Hindus', 'Muslims', 'Christians', 'Sikhs', 'Buddhists', 'Jains'].sum().sort_values(by='Hindus')
```

State_name	Hindus	Muslims	Christians	Sikhs	Buddhists	Jains
LAKSHADWEEP	1788	62268	317	8	10	11
MIZORAM	30136	14832	956331	286	93411	378
NAGALAND	173054	48963	1739651	1890	6759	2655
DAMAN AND DIU	220150	19277	2820	172	217	287
ANDAMAN AND NICOBAR ISLANDS	264296	32413	80984	1286	338	31
DADRA AND NAGAR HAVELI	322857	12922	5113	217	834	1186
MEGHALAYA	342078	130399	2213027	3045	9864	627
SIKKIM	352662	9867	60522	1868	167216	314
ARUNACHAL PRADESH	401876	27045	418732	3287	162815	771
CHANDIGARH	852574	51447	8720	138329	1160	1960
GOA	963877	121564	366130	1473	1095	1109
PONDICHERRY	1089409	75556	78550	297	451	1400

```python
#how many male workers in maharastra?
```

```python
[18] data.head(2)
```

	District_code	State_name	District_name	Population	Male	Female	Literate	Workers	Male_Workers	Female_Workers	...	Christians	Sikhs	Buddhists	Jains	Secondary_Education	Higher_Education	Graduate_Education	Age_Group_0_29	Age_Group_30_49	Age_Group_50
0	1	JAMMU AND KASHMIR	Kupwara	870354	474190	396164	439654	229064	190899	38165	...	1700	5600	66	39	74948	39709	21751	600759	178435	89679
1	2	JAMMU AND KASHMIR	Badgam	753745	398041	355704	335649	214866	162578	52288	...	1489	5559	47	6	66459	41367	27950	503223	160933	88978

2 rows × 25 columns

```python
[22] data[data.State_name == 'MAHARASHTRA']['Male_Workers'].sum()
```

```
32616875
```

```python
#set a column as index of the dataframe
```

```python
[23] data.set_index('District_code')
```

District_code	State_name	District_name	Population	Male	Female	Literate	Workers	Male_Workers	Female_Workers	Cultivator_Workers	...	Christians	Sikhs	Buddhists	Jains	Secondary_Education	Higher_Education	Graduate_Education	Age_Group_0_29	Age_Group_30_49	Age_Group_50
1	JAMMU AND KASHMIR	Kupwara	870354	474190	396164	439654	229064	190899	38165	34680	...	1700	5600	66	39	74948	39709	21751	600759	178435	89679
2	JAMMU AND KASHMIR	Badgam	753745	398041	355704	335649	214866	162578	52288	55299	...	1489	5559	47	6	66459	41367	27950	503223	160933	88978
3	JAMMU AND KASHMIR	Leh(Ladakh)	133487	78971	54516	93770	75079	53265	21814	20869	...	658	1092	88635	103	16265	8923	6197	70703	41515	21019
4	JAMMU AND KASHMIR	Kargil	140802	77785	63017	86236	51873	39839	12034	8266	...	604	1171	20126	28	16938	9826	3077	87532	35561	17488
5	JAMMU AND KASHMIR	Punch	476835	251899	224936	261724	161393	117677	43716	54264	...	958	11188	83	10	46062	29517	13962	304979	109818	61334
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
636	PONDICHERRY	Mahe	41816	19143	22673	36470	11802	9093	2709	43	...	958	3	21	14	8773	5711	4475	18760	12543	9428
637	PONDICHERRY	Karaikal	200222	97809	102413	154916	68301	53139	15162	2372	...	18391	46	63	54	29456	15930	18998	102333	60089	37434
638	ANDAMAN AND NICOBAR ISLANDS	Nicobars	36842	20727	16115	25332	17125	12714	4411	322	...	26077	343	119	0	6325	3668	1300	18786	12088	5922
639	ANDAMAN AND NICOBAR ISLANDS	North And Middle Andaman	105597	54861	50736	78683	38579	30612	7967	10727	...	21870	77	84	4	12707	10042	5133	57350	30741	17464
640	ANDAMAN AND NICOBAR ISLANDS	South Andaman	238142	127283	110859	190266	96831	77563	19268	5518	...	33037	866	135	27	42150	29910	22388	128402	76332	33128

640 rows × 24 columns

```python
#add a suffix to the column name
#add a prefix to the column name
```

```python
[24] data.head(2)
```

	District_code	State_name	District_name	Population	Male	Female	Literate	Workers	Male_Workers	Female_Workers	...	Christians	Sikhs	Buddhists	Jains	Secondary_Education	Higher_Education	Graduate_Education	Age_Group_0_29	Age_Group_30_49	Age_Group_50
0	1	JAMMU AND KASHMIR	Kupwara	870354	474190	396164	439654	229064	190899	38165	...	1700	5600	66	39	74948	39709	21751	600759	178435	89679
1	2	JAMMU AND KASHMIR	Badgam	753745	398041	355704	335649	214866	162578	52288	...	1489	5559	47	6	66459	41367	27950	503223	160933	88978

2 rows × 25 columns

```python
[25] data.add_suffix('_rightone')
```

	District_code_rightone	State_name_rightone	District_name_rightone	Population_rightone	Male_rightone	Female_rightone	Literate_rightone	Workers_rightone	Male_Workers_rightone	Female_Workers_rightone	...	Christians_rightone	Sikhs_rightone	Buddhists_rightone	Jains_rightone	Secondary_Education_rightone	Higher_Educa...
0	1	JAMMU AND KASHMIR	Kupwara	870354	474190	396164	439654	229064	190899	38165	...	1700	5600	66	39	74948	
1	2	JAMMU AND KASHMIR	Badgam	753745	398041	355704	335649	214866	162578	52288	...	1489	5559	47	6	66459	
2	3	JAMMU AND KASHMIR	Leh(Ladakh)	133487	78971	54516	93770	75079	53265	21814	...	658	1092	88635	103	16265	
3	4	JAMMU AND KASHMIR	Kargil	140802	77785	63017	86236	51873	39839	12034	...	604	1171	20126	28	16938	
4	5	JAMMU AND KASHMIR	Punch	476835	251899	224936	261724	161393	117677	43716	...	958	11188	83	10	46062	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
635	636	PONDICHERRY	Mahe	41816	19143	22673	36470	11802	9093	2709	...	958	3	21	14	8773	
636	637	PONDICHERRY	Karaikal	200222	97809	102413	154916	66301	53139	15162	...	18391	46	63	54	29456	