

**Name:** Jaydeep Solanki

**Roll:** 22BEC059

### **Practical 3:** Handling Missing Values

Code:

```
import pandas as pd

csv = pd.read_csv("train.csv")
csv["Cabin"].fillna(csv["Cabin"].mode()[0], inplace=True)
csv["Age"].fillna(csv["Age"].mean().round().astype(int), inplace=True)
csv["Embarked"].fillna(csv["Embarked"].mode()[0], inplace=True)
csv.to_csv('train_complete.csv', index=False)
print(csv)
```




Output:

```
[Running] python -u "c:\Users\JaySs\OneDrive\Desktop\Lab Works\AI ML Classs\Lab 3\code.py"
  PassengerId  Survived  Pclass  ...    Fare    Cabin  Embarked
0             1         0       3  ...   7.2500   B96 B98        S
1             2         1       1  ...  71.2833    C85        C
2             3         1       3  ...   7.9250   B96 B98        S
3             4         1       1  ...  53.1000    C123        S
4             5         0       3  ...   8.0500   B96 B98        S
..          ...         ...     ...  ...    ...    ...        ...
886          887         0       2  ...  13.0000   B96 B98        S
887          888         1       1  ...  30.0000    B42        S
888          889         0       3  ...  23.4500   B96 B98        S
889          890         1       1  ...  30.0000    C148        C
890          891         0       3  ...   7.7500   B96 B98        Q

[891 rows x 12 columns]

[Done] exited with code=0 in 2.172 seconds
```

Folder Structure:

Name	Date modified	Type	Size
 code	11-04-23 12:22 PM	Python Source File	1 KB
 train	11-04-23 12:10 PM	Microsoft Excel Co...	60 KB
 train_complete	24-04-23 10:31 PM	Microsoft Excel Co...	67 KB

**train.csv** file:

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ClipboardFontAlignmentNumberStylesCellsEditing

AutoSumFillClearEditing

Sort & Find & FilterSelect

N26

train

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
1	Passengerid	Survived	Pclass	Name	Sex	Age	SibSp	Parch	ticket	Fare	Cabin	Embarked									
2	1	0	3	Braund, Mr. Owen Harris	male	22	1	0	A/5 21171	7.25		S									
3	2	1	1	Cummings, Mrs. John Bradley (Florence Briggs Thayer)	female	38	1	0	PC 17599	71.2835	C85	C									
4	3	1	3	Heikinen, Miss. Laina	female	26	0	0	STON/O2. 3101282	7.925		S									
5	4	1	1	Futrelle, Mrs. Jacques Heath (Lily May Peel)	female	35	1	0	113803	53.1	C123	S									
6	5	0	3	Allen, Mr. William Henry	male	35	0	0	373450	8.05		S									
7	6	0	3	Moran, Mr. James	male	0	0	0	330877	8.4583		Q									
8	7	0	1	McCarthy, Mr. Timothy J	male	54	0	0	17463	51.8625	E46	S									
9	8	0	3	Palson, Master. Gosta Leonard	male	2	3	1	349909	21.075		S									
10	9	1	3	Johnson, Mrs. Oscar W (Elisabeth Vilhelmina Berg)	female	27	0	2	34742	11.1333		S									
11	10	1	2	Nasser, Mrs. Nicholas (Adele Achem)	female	14	1	0	23776	30.0708		C									
12	11	1	3	Sandstrom, Miss. Marguerite Rut	female	4	1	1	PP 9549	16.7	G6	S									
13	12	1	1	Bonnell, Miss. Elizabeth	female	58	0	0	113783	26.55	C103	S									
14	13	0	3	Saunderscock, Mr. William Henry	male	20	0	0	A/S. 2151	8.05		S									
15	14	0	3	Andersson, Mr. Anders Johan	male	39	1	5	347082	31.275		S									
16	15	0	3	Vestrom, Miss. Hulda Amanda Adolfina	female	14	0	0	350406	7.8542		S									
17	16	1	2	Hewlett, Mrs. (Mary D Kingcome)	female	55	0	0	248706	16		S									
18	17	0	3	Rice, Master. Eugene	male	2	4	1	382652	29.125		Q									
19	18	1	2	Williams, Mr. Charles Eugene	male	0	0	0	244373	13		S									
20	19	0	3	Vander Planke, Mrs. Julius (Emelia Maria Vandemoortele)	female	31	1	0	345763	18		S									
21	20	1	3	Maselmami, Mrs. Fatima	female	0	0	0	2649	7.225		C									
22	21	0	2	Fynney, Mr. Joseph J	male	35	0	0	239865	26		S									
23	22	1	2	Beesley, Mr. Lawrence	male	34	0	0	248698	13	D56	S									
24	23	1	3	McGowan, Miss. Anna "Annie"	female	15	0	0	330923	8.0292		Q									
25	24	1	1	Sloper, Mr. William Thompson	male	28	0	0	113788	35.5	A6	S									
26	25	0	3	Palson, Miss. Torborg Danira	female	8	3	1	349909	21.075		S									
27	26	1	3	Asplund, Mrs. Carl Oscar (Selma Augusta Emilia Johansson)	female	38	1	5	347077	21.3875		S									
28	27	0	3	Emir, Mr. Farred Chehab	male	0	0	0	2631	7.225		C									
29	28	0	1	Fortune, Mr. Charles Alexander	male	19	3	2	19950	263	C23 C25 C27	S									
30	29	1	3	O'Dwyer, Miss. Ellen "Nellie"	female	0	0	0	330959	7.8792		Q									
31	30	0	3	Todoroff, Mr. Lalio	male	0	0	0	349216	7.8958		S									
32	31	0	1	Uruchurtu, Don. Manuel E	male	40	0	0	PC 17601	27.7208		C									
33	32	1	1	Spencer, Mrs. William Augustus (Marie Eugenie)	female	1	0	0	PC 17569	146.5208	B78	C									
34	33	1	3	Glynn, Miss. Mary Agatha	female	0	0	0	335677	7.75		Q									
35	34	0	2	Wheardon, Mr. Edward H.	male	66	0	0	C.A. 24579	10.5		S									

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**train\_complete.csv** file:

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Calibri 11 A A Wrap Text General Conditional Formatting Format as Table Cell Styles Insert Delete Format AutoSum Fill Sort & Find & Filter Select Clear

D11 X ✓ fx Nasser, Mrs. Nicholas (Adele Achem)

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
	PassengerId	Survived	Pclass	Name	Sex	Age	SibSp	Parch	ticket	Fare	Cabin	Embarked				
1	1	0	3	Braund, Mr. Owen Harris	male	22	1	0	A/5 21171	7.25	B96 B98	S				
2	2	1	1	Cumings, Mrs. John Bradley (Florence Briggs Thayer)	female	38	1	0	PC 17599	71.2833	C85	C				
3	3	1	3	Heikkinen, Miss. Laina	female	26	0	0	STON/O2. 3101282	7.925	B96 B98	S				
4	4	1	1	Futrelle, Mrs. Jacques Heath (Lily May Peel)	female	35	1	0	113803	53.1	C123	S				
5	5	0	3	Allen, Mr. William Henry	male	35	0	0	373450	8.05	B96 B98	S				
6	6	0	3	Moran, Mr. James	male	30	0	0	330877	8.4583	B96 B98	Q				
7	7	0	1	McCarthy, Mr. Timothy J	male	54	0	0	17463	51.8625	E46	S				
8	8	0	3	Palsson, Master. Gosta Leonard	male	2	3	1	349909	21.075	B96 B98	S				
9	9	1	3	Johnson, Mrs. Oscar W (Elisabeth Vilhelmina Berg)	female	27	0	2	347742	11.1333	B96 B98	S				
10	10	1	2	Nasser, Mrs. Nicholas (Adele Achem)	female	14	1	0	237736	30.0708	B96 B98	C				
11	11	1	3	Sandstrom, Miss. Marguerite Rut	female	4	1	1	PP 9549	16.7	G6	S				
12	12	1	1	Bonnell, Miss. Elizabeth	female	58	0	0	113783	26.55	C103	S				
13	13	0	3	Saunderscock, Mr. William Henry	male	20	0	0	A/5. 2151	8.05	B96 B98	S				
14	14	0	3	Andersson, Mr. Anders Johan	male	39	1	5	347082	31.275	B96 B98	S				
15	15	0	3	Vestrom, Miss. Hulda Amanda Adolfina	female	14	0	0	350406	7.8542	B96 B98	S				
16	16	1	2	Hewlett, Mrs. (Mary D Kingcome)	female	55	0	0	248706	16	B96 B98	S				
17	17	0	3	Rice, Master. Eugene	male	2	4	1	382652	29.125	B96 B98	Q				
18	18	1	2	Williams, Mr. Charles Eugene	male	30	0	0	244373	13	B96 B98	S				
19	19	0	3	Vander Planke, Mrs. Julius (Emelia Maria Vandemoortele)	female	31	1	0	345763	18	B96 B98	S				
20	20	1	3	Masselmani, Mrs. Fatima	female	30	0	0	2649	7.225	B96 B98	C				
21	21	0	2	Fynney, Mr. Joseph J	male	35	0	0	239865	26	B96 B98	S				
22	22	1	2	Beesley, Mr. Lawrence	male	34	0	0	248698	13	D56	S				
23	23	1	3	McGowan, Miss. Anna "Annie"	female	15	0	0	330923	8.0292	B96 B98	Q				
24	24	1	1	Sloper, Mr. William Thompson	male	28	0	0	113788	35.5	A6	S				
25	25	0	3	Palsson, Miss. Torborg Danira	female	8	3	1	349909	21.075	B96 B98	S				
26	26	1	3	Asplund, Mrs. Carl Oscar (Selma Augusta Emilia Johansson)	female	38	1	5	347077	31.3875	B96 B98	S				
27	27	0	3	Emir, Mr. Farred Chehab	male	30	0	0	2631	7.225	B96 B98	C				
28	28	0	1	Fortune, Mr. Charles Alexander	male	19	3	2	19950	263	C23 C25 C27	S				

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