


Frequent Count ~ It is the most occurred value in the overall column.  
Frequent Count Imputation ~ Replacement of the frequent count value with the NaN values.

```
import pandas as pd
df = pd.read_csv('/titanic.csv')
df.head()
```

	PassengerId	Survived	Pclass	Name	Sex	Age	SibSp	Parch	Ticket	Fare	Cabin	Embarked
0	1	0	3	Braund, Mr. Owen Harris	male	22.0	1	0	A/5 21171	7.2500	NaN	S
1	2	1	1	Cumings, Mrs. John Bradley (Florence Briggs Th...	female	38.0	1	0	PC 17599	71.2833	C85	C
2	3	1	3	Heikkinen, Miss. Laina	female	26.0	0	0	STON/O2. 3101282	7.9250	NaN	S
3	4	1	1	Futrelle, Mrs. Jacques Heath (Lily Mav Peel)	female	35.0	1	0	113803	53.1000	C123	S

```
df.isna().sum()
```



PassengerId	0
Survived	0
Pclass	0
Name	0
Sex	0
Age	177
SibSp	0
Parch	0
Ticket	0
Fare	0
Cabin	687
Embarked	2
dtype:	int64

```
most_occurred = df.Age.value_counts().index[0]
```


```
import numpy as np
def most_frequency_value(dataset, column_name, occurred_variable):
    dataset[column_name+'imputed'] = np.where(dataset[column_name].isna(), occurred_variable, dataset[column_name])
```

```
most_frequency_value(df, 'Age', most_occurred)
```

```
df.head()
```

	PassengerId	Survived	Pclass	Name	Sex	Age	SibSp	Parch	Ticket	Fare	Cabin	Embarked
0	1	0	3	Braund, Mr. Owen Harris	male	22.0	1	0	A/5 21171	7.2500	NaN	S
1	2	1	1	Cumings, Mrs. John Bradley (Florence Briggs Th...	female	38.0	1	0	PC 17599	71.2833	C85	C
2	3	1	3	Heikkinen, Miss. Laina	female	26.0	0	0	STON/O2. 3101282	7.9250	NaN	S
3	4	1	1	Futrelle, Mrs. Jacques Heath (Lily Mav Peel)	female	35.0	1	0	113803	53.1000	C123	S

```
df.isna().sum()
```



PassengerId	0
Survived	0
Pclass	0
Name	0
Sex	0
Age	177
SibSp	0
Parch	0
Ticket	0
Fare	0
Cabin	687
Embarked	2
dtype:	int64

```
from sklearn.impute import SimpleImputer
simple_imputer = SimpleImputer(strategy = 'most_frequent')
age_imputed_si = simple_imputer.fit_transform(df[['Age']])
```

```
df['age_imputed_si'] = age_imputed_si
```

```
df.head()
```

	PassengerId	Survived	Pclass	Name	Sex	Age	SibSp	Parch	Ticket	Fare	Cabin	Embarked	age_imputed_si
0	1	0	3	Braund, Mr. Owen Harris	male	22.0	1	0	A/5 21171	7.2500	NaN	S	22.0
1	2	1	1	Cumings, Mrs. John Bradley (Florence Briggs Th...)	female	38.0	1	0	PC 17599	71.2833	C85	C	38.0
2	3	1	3	Heikkinen, Miss. Laina	female	26.0	0	0	STON/O2. 3101282	7.9250	NaN	S	26.0
				Futrelle, Mrs.									

```
df.Age.isna()

0      False
1      False
2      False
3      False
4      False
...
886     False
887     False
888      True
889     False
890     False
Name: Age, Length: 891, dtype: bool
```

```
df.loc[888]

PassengerId      889
Survived          0
Pclass           3
Name      Johnston, Miss. Catherine Helen "Carrie"
Sex              female
Age              NaN
SibSp            1
Parch            2
Ticket      W./C. 6607
Fare           23.45
Cabin          NaN
Embarked         S
age_imputed_si   24.0
Name: 888, dtype: object
```

```
df.isna().sum()

PassengerId      0
Survived          0
Pclass           0
Name             0
Sex              0
Age            177
SibSp            0
Parch            0
Ticket           0
Fare             0
Cabin          687
Embarked         2
age_imputed_si   0
dtype: int64
```

