TEAM ID : PNT2022TMID44120

Exploratory Data Analysis:

Required libraries:

```python
import pandas as pd
import numpy as np
import matplotlib.pyplot as plt
import seaborn as sns
%matplotlib inline
```

```python
df = pd.read_csv("P1/healthcare/healthcare_data.csv")
df
```



```python
df.head()
```



```python
df.tail()
```



```python
df.info()
```



```python
df.shape
```

```python
df.describe()
```

Before Null Values checking :

```python
df.isnull().sum()
```

```python
df.isnull()
```


318438 rows × 18 columns

```python
df.describe()
```



```python
df.isnull().sum()
```



```python
df.corr()
```


Work With Null Values :

```python
df['Bed Grade'].fillna(df['Bed Grade'].mean(),inplace=True)
```

```python
df['Bed Grade'].isnull().sum()
```

```python
df.isnull().sum()
```


After Cleaning Process :

Total Null Values Checking :

```python
df.isnull().sum()
```


Total Null Values :

```python
df.isnull().sum()
```

```python
df.corr()
```



```python
sns.heatmap(df.corr(),annot=True)
plt.title("Correlation Matrix")
plt.show()
```


Correlation Matrix

```python
df['Admission_Deposit'].hist(bins=8)
plt.title("Histogram for Admission_Deposit")
plt.show()
```


Histogram for Admission_Deposit

```python
df['Ward_Type'].hist(bins=8)
plt.title("Histogram for Ward_Type")
plt.show()
```


Histogram for Ward_Type

```python
df['patientid'].hist(bins=8)
plt.title("Histogram for patientid")
plt.show()
```


Histogram for patientid