```
import pandas as pd

Step 1: Load the dataset
data = pd.read_csv('"C:\Users\achuj\Downloads\DDW_B06SC_3300_State_TAMIL_NADU-2011.csv"')

Step 2: Data Exploration
 Display the first few rows of the dataset.
print(data.head())

 Check the shape of the dataset (number of rows and columns).
print(data.shape)

 Get basic statistics of the dataset.
print(data.describe())

 Check for missing values.
print(data.isnull().sum())

 Step 3: Data Preprocessing (example steps)
 Handle missing values
data = data.dropna()   Remove rows with missing values
OR
data['column_name'].fillna(value, inplace=True)   Fill missing values with a specific value

 Encode categorical variables (if needed)
 data = pd.get_dummies(data, columns=['categorical_column'])

 Scale/normalize numerical features (if needed)
 from sklearn.preprocessing import StandardScaler
 scaler = StandardScaler()
 data['numerical_column'] = scaler.fit_transform(data[['numerical_column']])
```

After preprocessing, you can save the processed data to a new CSV file if necessary.

```
data.to_csv('preprocessed_data.csv', index=False)
```

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