Data Cleaning

```python
import numpy as np
import pandas as pd
```

```python
data=pd.read_csv('movieforums_user.txt',sep='\t',encoding='latin1')
```

```python
data
```

```python
data.info()
```

deleting null values

```python
data.isnull().sum()
```

```python
data.dropna(inplace=True)
```

deleting user id column

```python
data=data.drop('userid',axis='columns')
```

```python
data
```

check for duplicates

```python
data.duplicated()
```

formatting the passwords

```python
# renaming the column
data.rename(columns={"CONCAT(password, ':', salt)": 'password'}, inplace=Tr
```

```python
data['password']=data['password'].apply(lambda x : x.split(':')[0])
```

```python
data
```

```python
data['password'].duplicated()
```