```python
import pandas as pd

('df = pd.read_csv('day12_users.csv

()df["city_clean"] = df["city"].str.strip().str.lower
df["city_clean"] = df["city_clean"].str.replace(r'[!-]', '',
(regex=True

} = city_map
,"nyc": "new york"
"san francisco": "san francisco"
{
(df["city_clean"] = df["city_clean"].replace(city_map

df["signup_time_clean"] = pd.to_datetime(df["signup_time"],
('errors='coerce

df["signup_time_clean"] =
('df["signup_time_clean"].dt.tz_localize('UTC

("--- print("--- Final Cleaned Data
print(df[["city", "city_clean", "signup_time",
([[""signup_time_clean

("--- (print("\n--- Validation: Check for NaT (Invalid dates
(()print(df["signup_time_clean"].isna().sum
```