

Temperature Forecast Project using ML

#Import the necessary libraries:

```
import pandas as pd
```

```
from sklearn.model_selection import train_test_split
```

```
from sklearn.linear_model import LinearRegression
```

```
from sklearn.metrics import mean_squared_error
```

Load the dataset

```
data = pd.read_csv('temperature_dataset.csv')
```

Split features and target variables

```
features = data.drop(['Next_Tmin', 'Next_Tmax'], axis=1)
```

```
target_min = data['Next_Tmin']
```

```
target_max = data['Next_Tmax']
```

Split the data into training and testing sets

```
X_train, X_test, y_train_min, y_test_min, y_train_max, y_test_max =
```

```
train_test_split(features, target_min, target_max, test_size=0.2, random_state=42)
```

Build separate models for Next_Tmin and Next_Tmax

```
model_min = LinearRegression()
```

```
model_max = LinearRegression()
```

Train the models

```
model_min.fit(X_train, y_train_min)
```

```
model_max.fit(X_train, y_train_max)
```

Make predictions on the test set

```
y_pred_min = model_min.predict(X_test)
```

```
y_pred_max = model_max.predict(X_test)
```

Evaluate the models

```
mse_min = mean_squared_error(y_test_min, y_pred_min)
```

```
mse_max = mean_squared_error(y_test_max, y_pred_max)
```

```
print("Mean Squared Error (Next_Tmin):", mse_min)
```

```
print("Mean Squared Error (Next_Tmax):", mse_max)
```