In [1]:
```
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
import matplotlib.pyplot as plt
```

In [3]:
```
data = pd.read_csv("temperatures.csv")
```

In [4]:
```
X = data[['JAN', 'FEB', 'MAR', 'APR', 'MAY', 'JUN', 'JUL', 'AUG', 'SEP',
y = data['ANNUAL']
```

In [5]:
```
X_train, X_test, y_train, y_test = train_test_split(X, y, test_size=0.2,
```

In [7]:
```
model = LinearRegression()
```

In [8]:
```
model.fit(X_train, y_train)
```

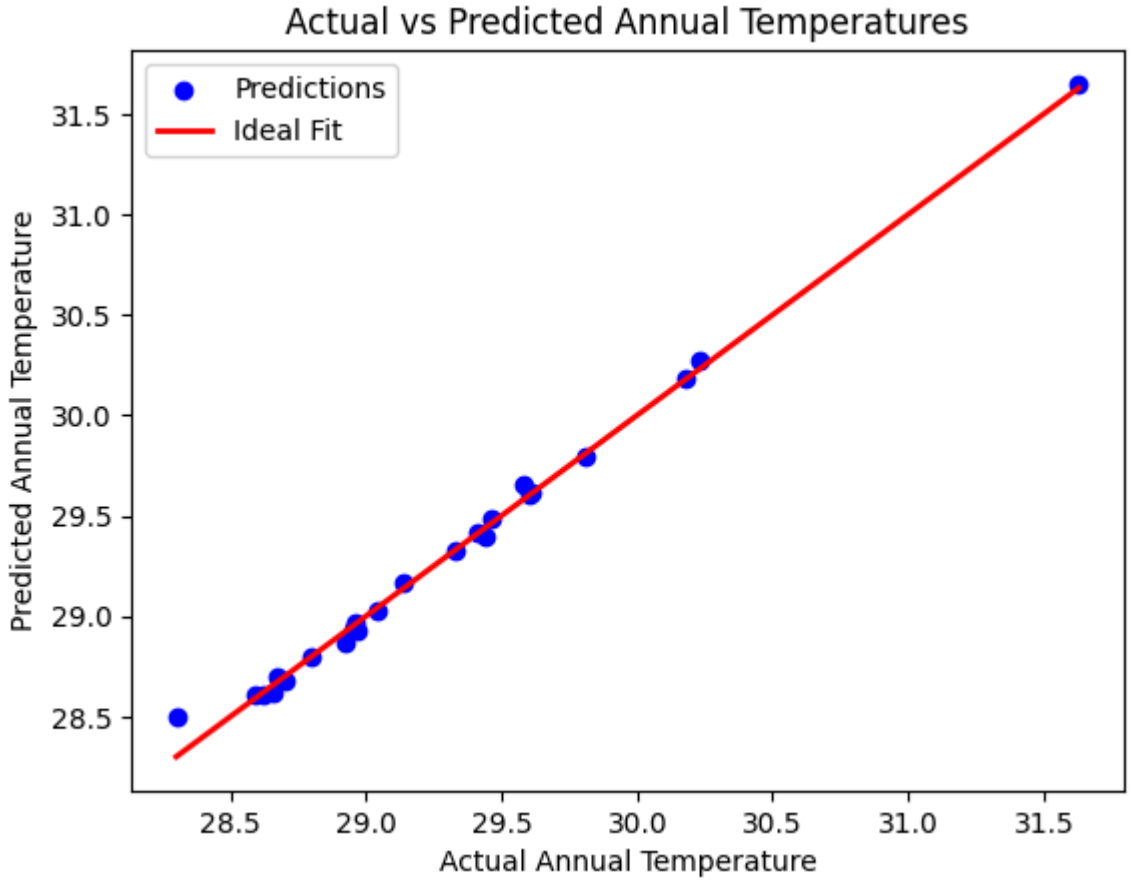
Out[8]:
```
LinearRegression
LinearRegression()
```

In [9]:
```
y_pred = model.predict(X_test)
```

In [11]:
```
print(f"Mean Squared Error (MSE):",mean_squared_error(y_test, y_pred))
```

```
Mean Squared Error (MSE): 0.002440835094691415
```

In [12]:
```
plt.scatter(y_test, y_pred, color='blue', label='Predictions')
plt.plot([y_test.min(), y_test.max()], [y_test.min(), y_test.max()], colo
plt.title('Actual vs Predicted Annual Temperatures')
plt.xlabel('Actual Annual Temperature')
plt.ylabel('Predicted Annual Temperature')
plt.legend()
plt.show()
```


Actual vs Predicted Annual Temperatures
Predictions
Ideal Fit
Predicted Annual Temperature
Actual Annual Temperature
28.5
29.0
29.5
30.0
30.5
31.0
31.5

In [ ]: