In [1]:
```
import pandas as pd
from sklearn.linear_model import LinearRegression
# Load the data from the CSV file
data = pd.read_csv("C:/Users/bhava/OneDrive/Pictures/Desktop/GPTC/5th SEM/EXCEL/yield_df.csv",)
print(data.head())
X = data[['Year']]
y = data['hg/ha_yield']
model = LinearRegression()
model.fit(X, y)
new_feature_value = 5
predicted_yield = model.predict([[new_feature_value]])
print("Predicted Yield:", predicted_yield)
```

```
   Unnamed: 0     Area         Item  Year  hg/ha_yield  \
0           0  Albania        Maize  1990        36613
1           1  Albania     Potatoes  1990        66667
2           2  Albania  Rice, paddy  1990        23333
3           3  Albania      Sorghum  1990        12500
4           4  Albania     Soybeans  1990         7000

   average_rain_fall_mm_per_year  pesticides_tonnes  avg_temp
0                         1485.0              121.0     16.37
1                         1485.0              121.0     16.37
2                         1485.0              121.0     16.37
3                         1485.0              121.0     16.37
4                         1485.0              121.0     16.37
Predicted Yield: [-2126918.40163814]

C:\Users\bhava\anaconda3\lib\site-packages\sklearn\base.py:450: UserWarning: X does not have valid feature names, bu
t LinearRegression was fitted with feature names
  warnings.warn(
```

In [*]:
```
import pandas as pd
from sklearn.linear_model import LinearRegression
import matplotlib.pyplot as plt
data = pd.read_csv('integrated_data.csv')
print(data.head())
X = data[['average_rain_fall_mm_per_year_y']]
y = data['hg/ha_yield']
model = LinearRegression()
model.fit(X, y)
predicted_yield = model.predict(X)
```

In [ ]:
```

```