```python
import pandas as pd
import copy
import numpy as N
import matplotlib.pyplot as plt
import numpy
as np
df =
pd.read_csv('E:/SHRIRAJ/crop_yeald_prediction/Dataset/crop_yield.csv')
print(df)
#df.hist()
def
get_unique(lst):
    res = N.array(lst)
    uels = N.unique(res)
    return uels
def
get_area(lst1,lst2,item):
    total_area = 0.0
    for i in lst1:
        if (item == i):

      index = lst1.index(i)
            total_area += float(lst2[index])
    return
total_area
def make_plot(lst1,lst2,text):
    x = np.array(lst1)
    y = np.array(lst2)

plt.title(text)
    plt.barh(x, y, height = 1.3)
    plt.show()
states =
df['State_Name'].tolist()
districts = df['District_Name'].tolist()
cropyear =
df['Crop_Year'].tolist()
seasons = df['Season'].tolist()
crops = df['Crop'].tolist()
areas =
df['Area'].tolist()
production = df['production'].tolist()
# print(areas)
unique_states =
get_unique(states)
unique_districts = get_unique(districts)
unique_years =
get_unique(cropyear)
unique_seasons = get_unique(seasons)
unique_crops =
get_unique(crops)
unique_areas = get_unique(areas)
state_wide_areas = []
for state in
unique_states:
    state_wide_areas.append(get_area(states,areas,state))
#
print(state_wide_areas)
# print('---------------')
district_wide_areas = []
for district in
unique_districts:
    district_wide_areas.append(get_area(districts,areas,district))
#
print(district_wide_areas)
make_plot(unique_states,state_wide_areas,"")
make_plot(uni
que_districts,district_wide_areas,"")
# print(len(cropyear))
#
print(len(unique_states))
print(unique_states)
def
statewise_croppred(states,crops,prodcutions,state_for_pred):
```

```python
    crop_preds = []

crop_values = []
    crop_values_temp = []
    top_five_crop_preds = []

top_five_crop_values = []
    temp_pred = 0.0
    temp_crop = ""
    unique_crops =
get_unique(crops)
    for state in states:
        if(state == state_for_pred):
            for
crop in unique_crops:
                #top_five_crop_preds.append(crop)
                for
inner_crop in crops:
                    if(inner_crop == crop):

                temp_crop = inner_crop
                        index = states.index(state)

                temp_pred += float(prodcutions[index])

crop_preds.append(temp_crop)
                crop_values.append(temp_pred)

temp_pred = 0.0
        temp_crop= ""
        crop_values_temp =
copy.copy(crop_values)
        crop_values.sort(reverse = True)
        for value in
crop_values_temp:
            index = crop_values.index(value)

top_five_crop_preds.append(crop_preds[index])
            top_five_crop_values.append(value)

    return top_five_crop_preds[0:5],top_five_crop_values[0:5]

state_code =
input("Enter state code between 1-27:")
print("country code is: " +
state_code)
print(unique_states[int(state_code)-1])
state_topredict =
unique_states[int(state_code)-1]
crops_preds , crops_values =
statewise_croppred(states,crops,production,state_topredict)
# print(len(crops_preds))
#
print(len(crops_values))
# print(crops_preds)
#
print(crops_values)
make_plot(crops_preds,crops_values,"Crop yield predictios for the
state: "+unique_states[int(state_code)-1])
print(unique_districts)
district_code =
input("Enter District code between 1-307:")
district_topredict =
unique_districts[int(district_code)-1]
print(district_topredict)
crops_preds , crops_values =
statewise_croppred(districts,crops,production,district_topredict)
print(crops_preds)
print(crop
s_values)
make_plot(crops_preds,crops_values,"Crop yield predictios for the district:
"+district_topredict)
```