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GENESIS – ADVANCED-PYTHON

PROJECT REPORT

PLANT DISEASE ANALYSIS



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| **Ver. Rel. No.** | **Release Date** | **Prepared. By** | **Reviewed By** | **To be Approved** | **Remarks/Revision Details** |
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# Activity 1

**Plant Disease Analysis**

## **Initial Code:**

class Disease:

def paddy(self):

print("Enter the Disease name from below")

print("1.Rice Blast")

print("2.Brown Spot of Rice")

print("3.Sheath blight of Rice")

print("4.Bacterial leaf blight")

m = int(input())

print("The Fertilizers to be used are")

if(m == 1):

print("Pseudomonas fluorescens @ 10g/kg of seed")

elif(m == 2):

print("Spray field twice with Mancozeb@0.2%")

elif(m == 3):

print("Spray Propiconazole@0.1% or Hexaconazole@0.2%")

elif(m == 4):

print("Spray Streptocycline(250 ppm) along Cu oxychloride(0.3%)")

else:

print("Sorry please select the disease from the given above list")

def grape(self):

print("Enter the Disease name from below")

print("1.Downy Mildew")

print("2.Powdery Mildew")

print("3.Anthracnose")

m = int(input())

print("The Fertilizers to be used are")

if(m == 1):

print("Spray Bordeaux mixture 0.5% at 15 days gap")

elif(m == 2):

print("Spray Sulfar 2.0 g/l or Dinocap 0.25 ml/l")

elif(m == 3):

print("Spray copper hydroxide 2.0 g/l or Chloronthalonil 2kg/ha")

else:

print("Sorry please select the disease from the given list")

def tomato(self):

print("Enter the Disease name from below")

print("1.Early leaf Blight")

print("2.Leaf Mold")

m = int(input())

print("The Fertilizers to be used are")

if(m == 1):

print("Spray Mancozeb 80WP at 1.5 - 2 lb/100 gal at 5 days gap")

elif(m == 2):

print("Spray Tanos 50WG at 6-8 oz at 3 days gap")

else:

print("Sorry please select the disease from the given list")

def potato(self):

print("Enter the Disease name from below")

print("1.Potato tuber moth")

print("2.Agrotis ypsilon")

print("3.Myzus persicae")

m = int(input())

if(m == 1):

print("Spray Lambda cyhalothrin 600ml/ha")

elif(m == 2):

print("Spray 20 SC 300ml/ha or Tracer 48 SC 200ml/ha")

elif(m == 3):

print("Spray Actara(thiamethoxam) 25WG 600g/ha")

else:

print("Sorry please select the disease from the given list")

obj = Disease()

print("Welcome to Plant Disease Analysis")

print("Please select the diseased plant from the below")

print("1.Paddy")

print("2.Grape")

print("3.Tomato")

print("4.Potato")

N = int(input("Enter the choice\n"))

if (N == 1):

obj.paddy()

elif (N == 2):

obj.grape()

elif (N == 3):

obj.tomato()

elif (N == 4):

obj.potato()

else:

print("Please enter from given options")

## **1.2** **Pep8Online:**

**A picture containing text, screenshot, monitor, computer

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### Figure 1: Pep8 Online Snapshot

## **1.3 Jupiter Code Output:**

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### Figure 2: Jupyter Output for activity 1

# Activity 2

## **2.1 Code with OOPS concepts:**

import re

class Fruits:

# Class Fruits is created

def Apple(self):

# Method Apple is created under Fruits category

print("Enter the Disease name from below")

print("1.Blast")

print("2.Brown Spot")

print("3.Sheath blight")

print("4.Bacterial leaf blight")

m = int(input())

print("The Fertilizers to be used are")

if(m == 1):

print("Pseudomonas fluorescens @ 10g/kg of seed")

elif(m == 2):

print("Spray field twice with Mancozeb@0.2%")

elif(m == 3):

print("Spray Propiconazole@0.1% or Hexaconazole@0.2%")

elif(m == 4):

print("Spray Streptocycline(250 ppm) along Cu oxychloride(0.3%)")

else:

print("Sorry please select the disease from the given above list")

def Grape(self):

# Method Grape is created under Fruits category

print("Enter the Disease name from below")

print("1.Downy Mildew")

print("2.Powdery Mildew")

print("3.Anthracnose")

m = int(input())

print("The Fertilizers to be used are")

if(m == 1):

print("Spray Bordeaux mixture 0.5% at 15 days gap")

elif(m == 2):

print("Spray Sulfar 2.0 g/l or Dinocap 0.25 ml/l")

elif(m == 3):

print("Spray copper hydroxide 2.0 g/l or Chloronthalonil 2kg/ha")

else:

print("Sorry please select the disease from the given list")

class Vegetables:

# Class Vegetables is created

def Tomato(self):

# Method Tomato is created under Vegetables category

print("Enter the Disease name from below")

print("1.Early leaf Blight")

print("2.Leaf Mold")

m = int(input())

print("The Fertilizers to be used are")

if(m == 1):

print("Spray Mancozeb 80WP at 1.5 - 2 lb/100 gal at 5 days gap")

elif(m == 2):

print("Spray Tanos 50WG at 6-8 oz at 3 days gap")

else:

print("Sorry please select the disease from the given list")

def Potato(self):

# Method Potato is created under Vegetables category

print("Enter the Disease name from below")

print("1.Potato tuber moth")

print("2.Agrotis ypsilon")

print("3.Myzus persicae")

m = int(input())

if(m == 1):

print("Spray Lambda cyhalothrin 600ml/ha")

elif(m == 2):

print("Spray 20 SC 300ml/ha or Tracer 48 SC 200ml/ha")

elif(m == 3):

print("Spray Actara(thiamethoxam) 25WG 600g/ha")

else:

print("Sorry please select the disease from the given list")

class plant:

# Class plant is created

def call(self):

# Method call is created

print("Welcome to Plant disease analysis")

print("Please choose the category of plant ")

print("1.Fruits")

print("2.Vegetables")

class choice(Fruits, Vegetables):

# Using Inheritance to call Fruits and Vegetables under choice

def select(self):

# To select the Fruits and Vegetables category

N = int(input("Enter the choice\n"))

if (N == 1):

print("1.Apple")

print("2.Grape")

m = int(input("Enter the choice\n"))

if(m == 1):

obj.Apple()

elif(m == 2):

obj.Grape()

else:

print("Please select input from above options")

elif (N == 2):

print("1.Tomato")

print("2.Potato")

m = int(input("Enter the choice\n"))

if(m == 1):

obj.Tomato()

elif(m == 2):

obj.Potato()

else:

print("Please select input from above options")

else:

print("Please select input from above options")

class End:

# End class is created

def \_\_init\_\_(self):

self.ld = self.Use()

class Use:

# Here Regular Expressions is implemented

def display(self):

print("Thank you for using this Software")

print(re.match("[A-Z a-z]+", "Plant"))

print(re.match("[A-Z a-z]+", "Disease"))

print(re.match("[A-z a-z]+", "Analysis"))

object1 = plant()

object1.call()

obj = choice()

obj.select()

d = End.Use()

d.display()

## **2.2 Pepe8 Online:**

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### Figure 3: Pep8 Output Snapshot Using OOPS

## **2.3 Output Code:**

Graphical user interface, text, application

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### Figure 4: Jupyter Output Using OOPS

3 Github link:

https://github.com/99003193/Advanced\_python