Problem 5 :   crop management

Understood : Have to monitor the crop type and its moisture level together with recent rainfall status to initiate or not the irrigation.
Solution : Ask user for crop type and use it else statements and nested loops to check for all conditions given in data.

Pseudocode :

START

                OUTPUT "(Enter crop type (wheat, corn or rice) and its moisture level : ")
                INPUT   cropType , SoilMoisture
                OUTPUT   " Enter TRUE it it rained in last 24 hours FALSE if not "
                INPUT   rainfall status
                IF   cropType == "wheat" THEN
                    IF soilMoisture < 30 THEN
                        IF   rainfall status == " FALSE " THEN
                            OUTPUT " Irrigation needed "
                        ELSE
                            OUTPUT " No irrigation needed "
                        END IF
                    ENDIF
                ELSE IF cropType == " corn " THEN
                        IF soilMoisture < 40   THEN
                            OUTPUT   " Irrigation needed "
                        ELSE
                            OUTPUT   " No irrigation needed "
                        END IF

                                                NEXT PAGE ⟶

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        ELSE    IF   CropType  == " rice " THEN
                IF  Soil Moisture < 25 THEN
                   IF   rainfall Status == " FALSE " THEN
                         OUTPUT " Irrigation needed "
                   ELSE
                         OUTPUT   " No irrigation needed "
                   ENDIF
        ELSE
             OUTPUT  "  Invalid crop type entered! "
        END IF
END
```
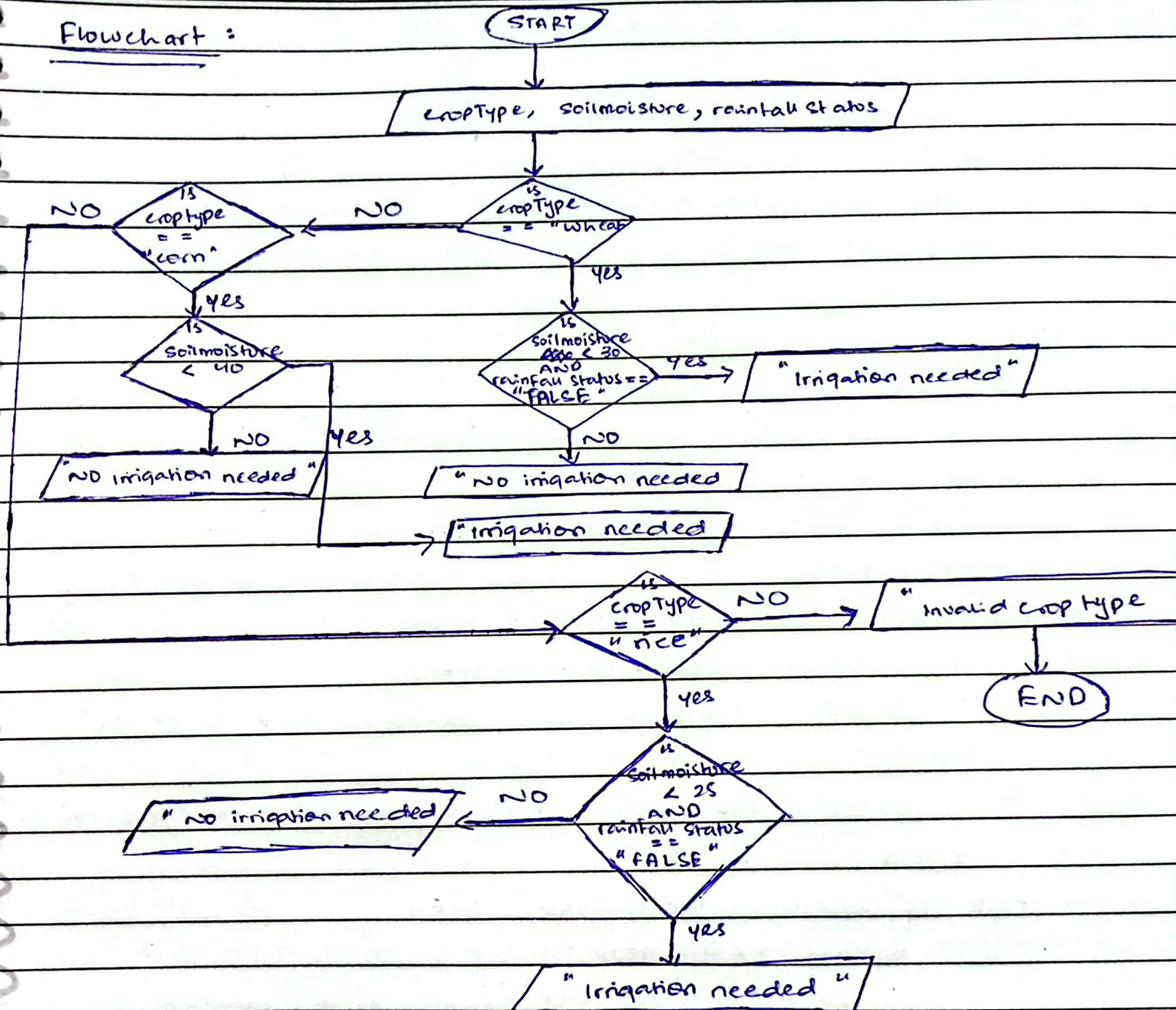
IPD chart :

Input	Process	Output
- CropType (wheat, corn, rice)	- check if crop is wheat	- Irrigation needed
	- If soil moisture is below 30%. and it hasn't rained in 24 hours	or No irrigation needed based on conditions.
- Soil moisture level	- check if crop is corn	
	- If soil moisture is below 40%. irrigation needed.	- Invalid crop type it not entered from among
- Rainfall status in last 24 hours (TRUE OR FALSE)	- check if crop is rice	(wheat, corn, rice).
	- soil moisture is below 25%. and in last 24 hours no rainfall irrigation needed	

Flowchart :

START

CropType, Soilmoisture, rainfall status

is cropType == "wheat"

is cropType == "corn" — NO

NO

yes (wheat) → is Soilmoisture < 30 AND rainfall status == "FALSE"

yes → "Irrigation needed"

NO → "No irrigation needed"

yes (corn) → is Soilmoisture < 40

NO → "No Irrigation needed"

yes → "Irrigation needed"

is cropType == "rice"

NO → "Invalid crop type" → END

yes → is Soilmoisture < 25 AND rainfall status == "FALSE"

NO → "No irrigation needed"

yes → "Irrigation needed"