Database Management System (IT615)

Sustainable Agriculture Resource Management

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Mapping E-R Model to Relational Model

i. Schema

1. Farmer(**FarmerID**, Name, FarmSize, ContactInfo)

2. Crop(**CropID**, Name, Type, GrowthPeriod, Yield)

3. Technology(**TechnologyID**, Name, Type, Purpose)

4. Soil(**SoilID**, Type, NutrientContent, pHLevel, MoistureLevel)

5. Fertilizer(**FertilizerID**, Name, Type, NutrientContent, ApplicationMethod)

6. TrainingProgram(**ProgramID**, Title, Duration, TargetAudience, Content)

7. Visitor(**VisitorID**, Name, Role, ContactInfo)

8. Policy(**PolicyID**, Name, Type, ImplementationDate)

9. Aid(**AidID**, Type, Amount, Beneficiary, Date)

10. CropDisease(**DiseaseID**, Name, AffectedCrops, Symptoms, Treatment)

11. CropRotation(**RotationID**, CropSequence, Duration, Benefits)

12. Investment(**InvestmentID**, Amount, Purpose, Beneficiary, Date)

13. Weather(**WeatherID**, Date, Temperature, Precipitation, Conditions)

14. SustainablePractice(**PracticeID**, Name, Description, Benefits, ImplementationLevel)

ii. Relational Schema

1. Farmer_Crop(**FarmerID, CropID**)

2. Farmer_Tech(**FarmerID, TechnologyID**, TimeofUsage)

3. FarmingTool(**ToolID**, Name, Type, Usage, Manufacturer, FarmerID)

4. Irrigation(**IrrigationID**, Type, CoverageArea, Efficiency, InstallationDate, FarmerID)

5. Farmer_Soil(**FarmerID, SoilID**)

6. Farmer_Fertilizer(**FarmerID, FertilizerID,** Quantity)

7. Farmer_ TrainingProgram(**FarmerID, ProgramID**)

8. Crop_Fertilizer(**CropID, FertilizerID**, FertilizerQuantity)

9. Crop_ Disease(**CropID, DiseaseID**)

10. Farmer_Aid(**FarmerID, AidID**)

11. Farmer_Investment(**FarmerID, InvestmentID**)

12. Irrigation_Soil(**IrrigationID, SoilID**)

13. Crop_Soil(**CropID, SoilID**)

14. Crop_ Weather(**CropID, WeatherID**)

15. Farmer_ SustainablePractice(**FarmerID, PracticeID**)