**EMPLOYEE**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Emp\_ID | EmpFName | EmpLName | EmpBirthdate | EmpStreetAddress | EmpCity | EmpState | EmpZip | EmpPhone | Type | NumberDependents |
| PK |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |

**PK:** Emp\_ID

-------------------------------------------------

**SKILLS**

|  |  |
| --- | --- |
| Emp\_ID | Skills |
| PK | |
| FK |  |

**PK:** Emp\_ID, Skills

**FK:** Emp\_ID -> EMPLOYEE (Emp\_ID)

**-------------------------------------------------**

**PAY\_PERIOD**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| PayDate | Emp\_ID | PayRate | NumberRegHoursWorked | NumberOvertimeHoursWorked | PaymentAmount | FederalDeduction | StateDeduction | SocialSecurityDeduction |
| PK | |  |  |  |  |  |  |  |
|  | FK |  |  |  |  |  |  |  |

**PK:** PayDate, Emp\_ID

**FK:** EmpID -> EMPLOYEE (Emp\_ID)

**-------------------------------------------------**

**FARM**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| FarmID | FarmName | FarmStreetAddr | FarmCity | FarmState | FarmZip | FarmPhone | FarmSpeciality | Emp\_ID |
| PK |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  | FK |

**PK:** FarmID

**FK:** EmpID -> EMPLOYEE (Emp\_ID)

**-------------------------------------------------**

**FEED**

|  |  |  |
| --- | --- | --- |
| FeedLotNumber | FeedName | FeedManufacturer |
| PK |  |  |
|  |  |  |

**PK:** FeedLotNumber

**-------------------------------------------------**

**BENEFIT**

|  |  |  |  |
| --- | --- | --- | --- |
| BenefitID | Emp\_ID | BenefitDescription | BenefitAmount |
| PK | |  |  |
|  | FK |  |  |

**PK:** BenefitID, Emp\_ID

**FK:** EmpID -> EMPLOYEE(Emp\_ID)

**-------------------------------------------------**

**CROP**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| CropID | CropName | CropDescription | CropOptimalPlantingDate | CropOptimalHarvestDate | CropOptimalPlantingWeather |
| PK |  |  |  |  |  |
|  |  |  |  |  |  |

**PK:** CropID

**-------------------------------------------------**

**LAND\_PARCEL**

|  |  |  |  |
| --- | --- | --- | --- |
| LandParcelNumber | LandDescription | LandPlatAddress | FarmID |
| PK |  |  |  |
|  |  |  | FK |

**PK:** LandParcelNumber

**FK:** FarmID -> FARM (FarmID)

**-------------------------------------------------**

**MACHINERY**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| MachID | MachName | MachVechicleID | MachPurchaseDate | MachPurchasePrice | MachPurchaseVendor | MachManufacturer | FarmID |
| PK |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  | FK |

**PK:** MachID

**FK:** FarmID -> FARM (FarmID)

**-------------------------------------------------**

**ANIMAL**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| AnimalID | AnimalType | AnimalSelling | AnimalBreeding | AnimalBirthdate | AnimalGender | FarmID |
| PK |  |  |  |  |  |  |
|  |  |  |  |  |  | FK |

**PK:** AnimalID

**FK:** FarmID -> FARM (FarmID)

**-------------------------------------------------**

**PLANTING**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| PlantingBeginDate | CropID | LandParcelNumber | PlantingEndDate | PlantingAmountSeeds | PlantingFertilizerTypeUsed | PlantingtFertilizerAmounUsed | PlantingWeather | PlantingEstimatedBushels |
| PK | | |  |  |  |  |  |  |
|  | FK | FK |  |  |  |  |  |  |

**PK:** PlantingBeginDate, CropID, LandParcelNumber

**FK:** CropID **->** CROP (CropID)

LandParcelNumber ->LAND\_PARCEL (LandParcelNumber)

**-------------------------------------------------**

**HARVEST**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| HarvestBeginDate | PlantingBeginDate | CropID | LandParcelNumber | HarvestEndDate | HarvestBushelsReaped | HarvestWeather |
| PK | | | |  |  |  |
|  | FK | FK | FK |  |  |  |

**PK:** HarvestBeginDate, PlantingBeginDate, CropID, LandParcelNumber

**FK:** PlantingBeginDate, CropID, LandParcelNumber -> PLANTING(PlantingBeginDate, CropID, LandParcelNumber)

**-------------------------------------------------**

**REPAIR\_MAINTENANCE**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| RepairDate | MachID | RepairDescription | RepairCost | RepairOutsideVendor | Emp\_ID |
| PK | |  |  |  |  |
|  | FK |  |  |  | FK |

**PK:** RepairDate, MachID

**FK:** Emp\_ID -> EMPLOYEE(Emp\_ID)

MachID -> MACHINERY(Mach\_ID)

**-------------------------------------------------**

**HEALTH\_RECORD**

|  |  |  |  |
| --- | --- | --- | --- |
| HealthDate | AnimalID | HealthVetName | HealthDiagnosis |
| PK | |  |  |
|  | FK |  |  |

**PK:** HealthDate, AnimalID

**FK:** AnimalID -> ANIMAL(AnimalID)

**IMMUNIZATION**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| ImmunizationID | AnimalID | ImmunDate | ImmunDescription | ImmunDosage | ImmunReaction |
| PK | |  |  |  |  |
|  | FK |  |  |  |  |

**PK:** ImmunizationID, AnimalID

**FK:** AnimalID -> AnimalID (ANIMAL)

**-------------------------------------------------**

**RELATIONSHIPS:**

**FEED\_IS\_FED\_TO\_ANIMAL (many to many)**

|  |  |  |
| --- | --- | --- |
| AnimalID | FeedLotNumber | DateFed |
| PK | |  |
| FK | FK |  |

**PK:** AnimalID, FeedLotNumber

**FK:** AnimalID -> ANIMAL (AnimalID);

FeedLotNumber -> FEED (FeedLotNumber)

**-------------------------------------------------**

**WORKS\_ON (ternary)**

|  |  |  |  |
| --- | --- | --- | --- |
| Emp\_ID | FarmID | EmpStartDate | EmpEndDate |
| PK | | |  |
| FK | FK |  |  |

**PK:** Emp\_ID, FarmID, EmpStartDate

**FK:** Emp\_ID -> EMPLOYEE (Emp\_ID)

FarmID -> FARM (FarmID)

**-------------------------------------------------**

**IS\_RELATED\_TO (recursive)**

|  |  |
| --- | --- |
| AnimalID | Related\_AnimalID |
| PK | PK |
| FK | FK |

**PK:** AnimalID, Related\_AnimalID

**FK:** AnimalID -> ANIMAL(AnimalID)

Related\_AnimalID -> ANIMAL(Related\_AnimalID)