Farmer related database elements

Purpose

This section of the database exists to hold all data related to the **farmers** that KKFU works with. Each farmer record has a linked set of child-entities. This allows data such as the farmer's name, Ghana-card number, gender, physical address, phone number and details of their household to be stored.

Each **farmer** starts as a record in the **People** data-table, with a **farmer** record added to hold farmer-specific data elements. The **farmer** is linked to a set of child-entities: **Membership Details, Inspections, Farmer Deliveries, Farm Fields, Co-op Transactions, Caretakers, Election Candidates & Calls**.

These child-entities enable the recording of many aspects of data that are required for the day-to-day operation of Kuapa Kokoo.

These entities exist to answer questions such as:

- What is the total acreage of land farmed by any farmer, or any group of farmers, such as the farmers of one Zone, Society or Region?

- What is the average acreage of female farmers compared to male farmers?

- What is the average age of farmers?

- Which farmers have Caretakers?

- Which farmers have interacted with the KKFU Teleagric System, and what has resulted from these interactions?

Through Links from these entities to other parts of the database it is possible to answer questions like:

- When was this farmer last Audited, have they received a bonus this year?

- What other crops apart from cocoa to they farm?

These are only example questions, and many other types of questions can be answered, including questions relating to issues such as how the data changes over time, whether the number of farmers is growing or shrinking, whether new members are joining etc.

It is important to remember that some data-schema elements are used much more fully than others. For example in KKSys at present the **Inspections, Caretakers and Election Candidates** entities are not very well used. They were added to the database, but then IT Staff overseeing their use left KKFU before their use could be adopted fully.

Also, the **Inspections** entity has more-or-less been over-taken by the **Questionnaires** system (detailed in the next help-topic).
The **Inspections** entity was used to record data such as TotalFarmArea and TotalCasualWorkers, together with a number of other data-points. However this form of inspection was never really implemented.

This section of the database contains many of the largest data-entities. Entities such as Membership Details, Farmer Deliveries and Farm Fields contain many hundreds of thousands and in some cases millions of data-records. This means that some care must be taken when running reports and asking questions of the data and fairly large data-sets can result, which can use a lot of system resources.

If changes are made to these entities in KKSys, the changes will be visible within the [System Database Modeller](#).

Some data-entities (such as "Projects") had a period of use by KKFU staff, and have fallen into disuse. Staff at KKFU should review these entities and decide whether to use them or not in future. These under-used and unused entities all have the capacity to serve useful functions within KKFU.

The use and purpose of each of these entities and the child-entities are detailed in individual sections of this help document below, please go to the linked articles for detailed, step by step description of each data-entity
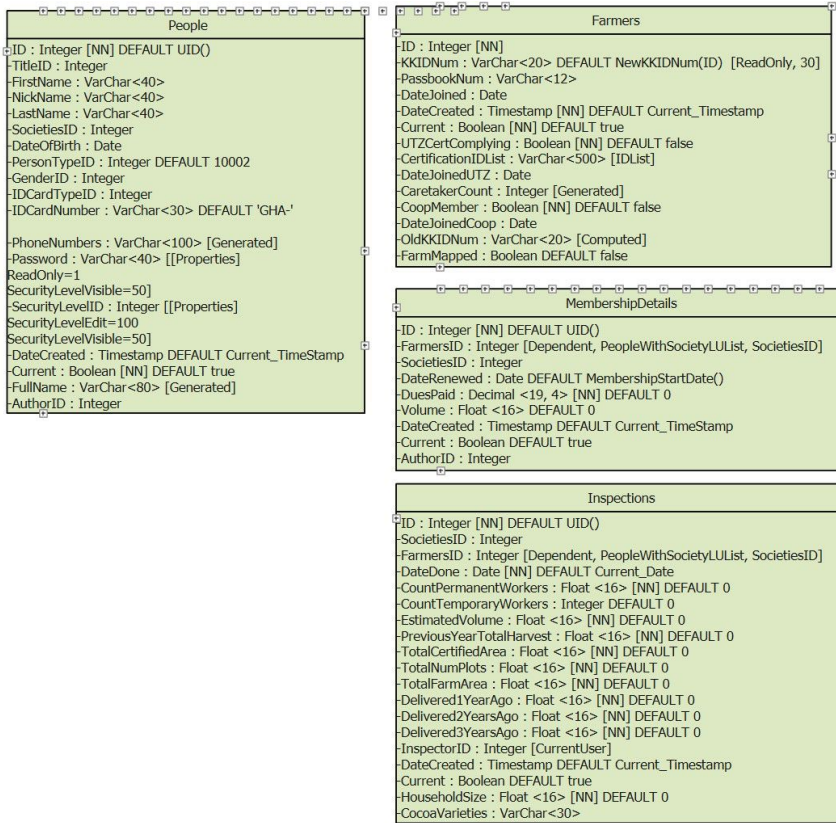
Elements of the farmer-related sections of the database

The KKSys is a single, whole database. The farmer related sections of the database are not separate from the sections managing Society, Questionnare or Audit data. The sections have been separated in this help document to make it easier to understand them and get a sense of their inter-relationships and purpose, but the data exists as a whole and all parts of it can be accessed at any time.

People, Farmers, Membership Details, Inspections

The image below shows each of these data-entities and lists all the **data-fields** present in each one, with it's **data-type**. These images give an overview of the data-entities which is fully detailed in the individual linked sections listed above.

People
- ID : Integer [NN] DEFAULT UID()
- TitleID : Integer
- FirstName : VarChar<40>
- NickName : VarChar<40>
- LastName : VarChar<40>
- SocietiesID : Integer
- DateOfBirth : Date
- PersonTypeID : Integer DEFAULT 10002
- GenderID : Integer
- IDCardTypeID : Integer
- IDCardNumber : VarChar<30> DEFAULT 'GHA-'
- PhoneNumbers : VarChar<100> [Generated]
- Password : VarChar<40> [[Properties]
- ReadOnly=1
- SecurityLevelVisible=50]
- SecurityLevelID : Integer [[Properties]
- SecurityLevelEdit=100
- SecurityLevelVisible=50]
- DateCreated : Timestamp DEFAULT Current_TimeStamp
- Current : Boolean [NN] DEFAULT true
- FullName : VarChar<80> [Generated]
- AuthorID : Integer

Farmers
- ID : Integer [NN]
- KKIDNum : VarChar<20> DEFAULT NewKKIDNum(ID) [ReadOnly, 30]
- PassbookNum : VarChar<12>
- DateJoined : Date
- DateCreated : Timestamp [NN] DEFAULT Current_Timestamp
- Current : Boolean [NN] DEFAULT true
- UTZCertComplying : Boolean [NN] DEFAULT false
- CertificationIDList : VarChar<500> [IDList]
- DateJoinedUTZ : Date
- CaretakerCount : Integer [Generated]
- CoopMember : Boolean [NN] DEFAULT false
- DateJoinedCoop : Date
- OldKKIDNum : VarChar<20> [Computed]
- FarmMapped : Boolean DEFAULT false

MembershipDetails
- ID : Integer [NN] DEFAULT UID()
- FarmersID : Integer [Dependent, PeopleWithSocietyLULList, SocietiesID]
- SocietiesID : Integer
- DateRenewed : Date DEFAULT MembershipStartDate()
- DuesPaid : Decimal <19, 4> [NN] DEFAULT 0
- Volume : Float <16> DEFAULT 0
- DateCreated : Timestamp DEFAULT Current_TimeStamp
- Current : Boolean DEFAULT true
- AuthorID : Integer

Inspections
- ID : Integer [NN] DEFAULT UID()
- SocietiesID : Integer
- FarmersID : Integer [Dependent, PeopleWithSocietyLULList, SocietiesID]
- DateDone : Date [NN] DEFAULT Current_Date
- CountPermanentWorkers : Float <16> [NN] DEFAULT 0
- CountTemporaryWorkers : Integer DEFAULT 0
- EstimatedVolume : Float <16> [NN] DEFAULT 0
- PreviousYearTotalHarvest : Float <16> [NN] DEFAULT 0
- TotalCertifiedArea : Float <16> [NN] DEFAULT 0
- TotalNumPlots : Float <16> [NN] DEFAULT 0
- TotalFarmArea : Float <16> [NN] DEFAULT 0
- Delivered1YearAgo : Float <16> [NN] DEFAULT 0
- Delivered2YearsAgo : Float <16> [NN] DEFAULT 0
- Delivered3YearsAgo : Float <16> [NN] DEFAULT 0
- InspectorID : Integer [CurrentUser]
- DateCreated : Timestamp DEFAULT Current_Timestamp
- Current : Boolean DEFAULT true
- HouseholdSize : Float <16> [NN] DEFAULT 0
- CocoaVarieties : VarChar<30>

People, Farmers, MembershipDetails, Inspections

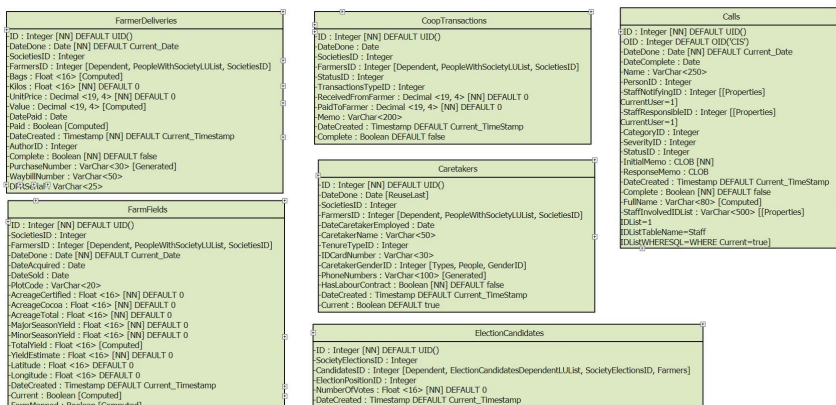# Farmer Deliveries, Farm Fields, Co-op Transactions, Caretakers, Election Candidates, Calls

The image below shows each of these data-entities and lists all the **data-fields** present in each one, with it's **data-type**. These images give an overview of the data-entities which is fully detailed in the individual linked sections listed above.

FarmerDeliveries
- ID : Integer [NN] DEFAULT UID()
- DateDone : Date [NN] DEFAULT Current_Date
- SocietiesID : Integer
- FarmersID : Integer [Dependent, PeopleWithSocietyLULList, SocietiesID]
- Bags : Float <16> [Computed]
- Kilos : Float <16> [NN] DEFAULT 0
- UnitPrice : Decimal <19, 4> [NN] DEFAULT 0
- Value : Decimal <19, 4> [Computed]
- DatePaid : Date
- Paid : Boolean [Computed]
- DateCreated : Timestamp [NN] DEFAULT Current_Timestamp
- AuthorID : Integer
- Complete : Boolean [NN] DEFAULT false
- PurchaseNumber : VarChar<30> [Generated]
- WaybillNumber : VarChar<50>
- DRSSerial : VarChar<25>

FarmFields
- ID : Integer [NN] DEFAULT UID()
- SocietiesID : Integer
- FarmersID : Integer [Dependent, PeopleWithSocietyLULList, SocietiesID]
- DateDone : Date [NN] DEFAULT Current_Date
- DateAcquired : Date
- DateSold : Date
- PlotCode : VarChar<20>
- AcreageCertified : Float <16> [NN] DEFAULT 0
- AcreageCocoa : Float <16> [NN] DEFAULT 0
- AcreageTotal : Float <16> [NN] DEFAULT 0
- MajorSeasonYield : Float <16> [NN] DEFAULT 0
- MinorSeasonYield : Float <16> [NN] DEFAULT 0
- TotalYield : Float <16> [Computed]
- YieldEstimate : Float <16> [NN] DEFAULT 0
- Latitude : Float <16> DEFAULT 0
- Longitude : Float <16> DEFAULT 0
- DateCreated : Timestamp DEFAULT Current_Timestamp
- Current : Boolean [Computed]
- FarmMapped : Boolean [Computed]

CoopTransactions
- ID : Integer [NN] DEFAULT UID()
- DateDone : Date
- SocietiesID : Integer
- FarmersID : Integer [Dependent, PeopleWithSocietyLULList, SocietiesID]
- StatusID : Integer
- TransactionsTypeID : Integer
- ReceivedFromFarmer : Decimal <19, 4> [NN] DEFAULT 0
- PaidToFarmer : Decimal <19, 4> [NN] DEFAULT 0
- Memo : VarChar<200>
- DateCreated : Timestamp DEFAULT Current_TimeStamp
- Complete : Boolean DEFAULT false

Caretakers
- ID : Integer [NN] DEFAULT UID()
- DateDone : Date [ReuseLast]
- SocietiesID : Integer
- FarmersID : Integer [Dependent, PeopleWithSocietyLULList, SocietiesID]
- DateCaretakerEmployed : Date
- CaretakerName : VarChar<50>
- TenureTypeID : Integer
- IDCardNumber : VarChar<30>
- CaretakerGenderID : Integer [Types, People, GenderID]
- PhoneNumbers : VarChar<100> [Generated]
- HasLabourContract : Boolean [NN] DEFAULT false
- DateCreated : Timestamp DEFAULT Current_Timestamp
- Current : Boolean DEFAULT true

Calls
- ID : Integer [NN] DEFAULT UID()
- OID : Integer DEFAULT OID('CIS')
- DateDone : Date [NN] DEFAULT Current_Date
- DateComplete : Date
- Name : VarChar<250>
- PersonID : Integer
- StaffNotifyingID : Integer [[Properties]
- CurrentUser=1]
- StaffResponsibleID : Integer [[Properties]
- CurrentUser=1]
- CategoryID : Integer
- SeverityID : Integer
- StatusID : Integer
- InitialMemo : CLOB [NN]
- ResponseMemo : CLOB
- DateCreated : Timestamp DEFAULT Current_Timestamp
- Complete : Boolean [NN] DEFAULT false
- FullName : VarChar<80> [Computed]
- StaffInvolvedIDList : VarChar<500> [[Properties]
- IDList=1
- IDListTableName=Staff
- IDListWHERESQL=WHERE Current=true]

ElectionCandidates
- ID : Integer [NN] DEFAULT UID()
- SocietyElectionsID : Integer
- CandidatesID : Integer [Dependent, ElectionCandidatesDependentLULList, SocietyElectionsID, Farmers]
- ElectionPositionID : Integer
- NumberOfVotes : Float <16> [NN] DEFAULT 0
- DateCreated : Timestamp DEFAULT Current_Timestamp

FarmerDeliveries, FarmFields, CoopTransactions, Caretakers, ElectionCandidates, Calls