

**COLLEGE OF BASIC AND APPLIED SCIENCES  
SCHOOL OF PHYSICAL AND MATHEMATICAL SCIENCES  
BSc COMPUTER SCIENCE**



**DCIT 404 – ADVANCED DATABASE**

***End of Semester Project***

**BY**

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## A) ENTITIES AND ATTRIBUTES

ENTITIES	ATTRIBUTES
SUPERVISOR	Supervisor ID Supervisor Name Telephone Number Date Verified
ENUMERATOR	Enumerator ID Enumerator Name Telephone Number Date Completed
REGION	Region ID Region Name
DISTRICT	District ID District Name District Type (district, municipal or metro.)
SUB-DISTRICT	Sub-District ID Sub-District Name
LOCALITY	Locality ID Locality Name
ENUMERATION AREA	Enumeration Area Code Enumeration Area type
HOUSEHOLD	Household ID Enumeration Area ID Enumeration Area type Region ID District ID Sub-District ID Locality Number Street Address House/Compound/Group Quarters Description ECG Number/NHIS Number/VRA Number/Other Number Household Head Household Head Contact 1 Household Head Contact 2 Structure number of house/compound Total household members Type of housing residence (Enum) Date Enumeration Started Date Enumeration Completed Total Number of Visits Number of Forms Used Total Number of Usual Male Members Total Number of Usual Female Members Total Number of Absent Male Members Total Number of Absent Female Members Total Number of Emigrant Male Members

	Total Number of Emigrant Female Members Household Status
HOUSEHOLD STATUS	Household Status Code/ID Household Status
USUAL HOUSEHOLD MEMBERS (A)	Household Member ID Household ID Full Name age Sex Relations to Head code Relations to Head Description Household Status Code/ID
VISITORS (B)	Household Member ID Household ID Full Name age Sex Relations to Head code Relations to Head Description Household Status Code/ID
ABSENT MEMBERS (C)	Household Member ID Household ID Full Name Relations to Head Description Relations to Head code age Sex Destination Town/Village Destination Region/Country Code Number of Months Absent Household Status Code/ID
EMIGRANTS	Household Member ID Household ID Full Name Relations to Head Description Relations to Head Code age Sex Destination Country Name Destination Country code Year of departure Activity code Activity Name Number of Months Absent

DEMOGRAPHY AND SOCIAL CHARACTERISTICS	Household ID Household Status Household Member ID Full Name Date of Birth Age Nationality code Ethnicity Group Ethnicity Code Born in this village/town. (enum yes or no) Region/Country of Birth Region/Country code of Birth Living in this village since birth (enum) Number of years lived in this village/town. Religion code Religion Name (other specify, can't enum) Marital Status code
LITERACY AND EDUCATION	Household ID Household Status Household Member ID Can Read Local Language (enum) Can Write Local Language Can Read English Can Write English Can Read French Can Write French Literate in Other Languages School Attendance (enum never, now past) Highest level of School Attended/Attending code (fk) Highest Educational Grade Completed
LEVEL OF EDUCATION	Code Description
ECONOMIC ACITIVY	Household ID Household Type Household Member ID Worked during the last 7 days. Engagement Status Code Did not work Code. Reason for not working Code. Engagement/Occupation Status Code Detailed Engagement Description
ENGAGEDMENT STATUS	Engagement/Occupation Status Code Detailed Engagement Description (now, previously)
WORK ENGAGED	Work Engaged Code Work Engaged Description
NOT WORKING	Reason for not working code.

	Reason for not working description
INDUSTRY	Service/product code Service/ product description Name of industry Location of industry Employment status code (fk) Employment sector code (fk)
EMPLOYEMENT STATUS	Employment Status Code Description of employment status
EMPLOYEMENT SECTOR	Code of employment sector Name of employment sector
DISABILITY	Household ID Household Type ID Household Member ID Has Sight Issues Has Hearing Issues Has Speech Issues Has Physical Issues Has Emotional Issues Other disability Other disability description
ICT	Household ID Household Type ID Household Member ID Owns Mobile Phone Uses Internet Household has Fixed Telephone Line Household has Desktop/Laptop
FERTILITY	Household ID Household Type ID Household Member ID Male Children Ever Born Female Children Ever Born Male Children Surviving Female Children Surviving Boys born in last 12 months. Girls born in last 12 months
MORTALITY	Household ID Household Type ID Household Member ID Any member died in last 12 months. Deceased Name Deceased Sex Deceased Age at Death Cause of death due to mishap

	Was death pregnancy or childbirth related
AGRICULTURE	Household ID Household Type ID Household Member ID Household Member engaged in crop farming. Household Member engaged in tree growing. Household Member engaged in livestock rearing. Household Member engaged in fish farming. Total Males engaged in Agriculture. Total Females engaged in Agriculture. Land Size Measuring Unit Code Crop Type Name Crop code Cropping type code Types of livestock/fisheries Livestock /Fishery code Number of Livestocks/Fisheries
CROP AND TREE PLANTING	Crop Type Name Crop code
MEASUREMENT UNIT	Measuring unit Code Name of Measuring Unit
CROPING TYPE	Cropping type code Cropping type name
LIVESTOCK AND FISHERIES	Livestock/Fishery Code Livestock/Fishery Type
HOUSING CONDITION	Household ID Household Type ID Household Member ID Dwelling Type ID Outer Wall Material ID Floor Material ID Roofing Material ID Tenure Type ID Ownership Type ID Number of Rooms Number of Sleeping Rooms Number of Shared Sleeping Rooms Number of Households Sharing One Room Lighting Source ID Water Supply Drinking ID Water Supply Domestic Cooking Fuel ID Cooking Space ID Bathing Facility ID Toilet Facility ID

	Shared Toilet Facility Number of Households Sharing Toilet Facility Solid Waste Disposal ID Liquid Waste Disposal ID
DWELLING	Type of Dwelling code Dwelling Name
ROOF MATERIAL	Roofing Code Roofing Description if 9 specify
OUTER WALL MATERIAL	Outer Wall Material ID Outer Wall Material
FLOOR MATERIAL	Floor Material ID Floor Material
TENURE	Tenure Type ID Tenure Type
OWNERSHIP	Ownership Type ID Ownership Type
LIGHTING SOURCE	Lighting Source ID Lighting Source
WATER SUPPLY	Water Supply ID Water Supply
COOKING FUEL	Cooking Fuel ID Cooking Fuel
COOKING SPACE	Cooking Space ID Cooking Space
BATHING FACILITY	Bathing Facility ID Bathing Facility
TOILET FACILITY	Toilet Facility ID Toilet Facility
SOLID WASTE DISPOSAL	Solid Waste Disposal ID Solid Waste Disposal
LIQUID	Liquid Waste Disposal ID Liquid Waste Disposal



## B) KEY FIELDS AND INTEGRITY CONSTRAINTS

### **ENUMERATOR:**

Enumerator ID: Primary Key

### **SUPERVISOR**

Supervisor ID: Primary Key

### **REGION**

Region ID: Primary Key

### **DISTRICT:**

District ID: Primary Key

### **SUB-DISTRICT:**

Sub-District ID: Primary Key

### **LOCALITY:**

Locality ID: Primary Key

### **HOUSEHOLD:**

Household ID: Primary Key

Enumeration Area ID: FOREIGN KEY

Enumeration Area type: FOREIGN KEY

Region ID: Foreign Key

District ID: Foreign Key

Sub-District ID: Foreign Key

Locality Number: Foreign Key

Street Address: NOT NULL

ECG Number/NHIS Number/VRA Number/Other Number: NOT NULL

Household Head: UNIQUE

Household Head Contact 1: UNIQUE, CHECK (length (Household Head Contact 1) = 10)

Household Head Contact 2: UNIQUE, CHECK (length (Household Head Contact 2) = 10)

Household Status: Foreign Key

**USUAL HOUSEHOLD MEMBERS:**

Household Member ID: Primary Key

Household ID: Foreign Key

Full Name: NOT NULL

Age: NOT NULL

Sex: NOT NULL

Relations to Head code: NOT NULL

Relations to Head Description: NOT NULL

**VISTORS**

Household Member ID: Primary Key

Household ID: Foreign Key

Full Name: NOT NULL

Age: NOT NULL

Sex: NOT NULL

Relations to Head code: NOT NULL

Relations to Head Description: NOT NULL

**ABSENT MEMBERS:**

Household Member ID: Primary Key

Household ID: Foreign Key

Full Name: NOT NULL

Relations to Head Description: NOT NULL

Relations to Head code: NOT NULL

Age: NOT NULL

Sex: NOT NULL

Destination Town/Village: NOT NULL

Destination Region/Country Code: UNIQUE

Number of Months Absent: NOT NULL

**EMIGRANTS:**

Household Member ID: PRIMARY KEY

Household ID: FOREIGN KEY

Full Name: NOT NULL

Relations to Head Description: NOT NULL

Relations to Head Code: NOT NULL

Age: CHECK (Age>15)  
Sex: NOT NULL

Destination Country Name: NOT NULL

Destination Country code: NOT NULL

Year of departure: NOT NULL

Activity code:

Activity Name

Number of Months Absent: CHECK (Number of Months Absent > 6)

### **DEMOGRAPHY AND SOCIAL CHARACTERISTICS:**

Household ID: Foreign Key

Household Status: Foreign Key

Household Member ID: Foreign Key

Nationality code: NOT NULL

Ethnicity Group: NOT NULL

Ethnicity Code: NOT NULL

Born in this village/town. NOT NULL

Region/Country of Birth: NOT NULL

Region/Country code of Birth: NOT NULL

Living in this village since birth: NOT NULL

Number of years lived in this village/town: NOT NULL

Religion code: FOREIGN KEY

Religion Name: FOREIGN KEY

Marital Status code: NOT NULL

**PRIMARY KEY (Household ID, Household Status, Household Member ID)**

**FOREIGN KEY (Household ID) REFERENCES Households (Household ID)**

**FOREIGN KEY (Household Status) REFERENCES Households Status (Household Status ID)**

**LITERACY AND EDUCATION:**

Household ID: FOREIGN KEY

Household Status: FOREIGN KEY

Household Member ID: FOREIGN KEY

**PRIMARY KEY (Household ID, Household Status, Household Member ID)**

**ECONOMIC ACITIVITY**

Household ID: FOREIGN KEY

Household Type: FOREIGN KEY

Household Member ID: FOREIGN KEY

**PRIMARY KEY (Household ID, Household Type, Household Member ID)**

**INDUSTRY**

Service/product code: NOT NULL

Service/ product description: NOT NULL

Name of industry: NOT NULL

Location of industry: NOT NULL

Employment status code FOREIGN KEY

Employment sector code FOREIGN KEY

**DISABILITY, ICT, FERTILITY, MORTALITY, AGRICULTURE, HOUSING  
CONDITION:**

Household ID: Foreign Key

Household Status: Foreign Key

Household Member ID: Foreign Key

**PRIMARY KEY (Household ID, Household Status, Household Member ID)**

### C) NORMALIZED TABLE AS MAY BE POSSIBLE

1. In order to achieve 1NF, duplicate data were properly handled. Hence a Household will be uniquely identified by the Region, District, Sub-District, Locality, and Enumeration Area Code. This ensures the uniqueness of a Household.

Also, for a Household Member is uniquely identified by their unique Household above and their Household Status. The Household Status ensures no two Household Members share the same ID.

Again, all composite attributes like full name across all tables have been removed and replaced with first name and last name.

Additionally, all records that are duplicated in the form were handled. For example, Household attributes Enumeration Number/Code and Enumeration Type were normalized by creating an Enumeration Area entity with Enumeration code and type as attributes which is exported as foreign key in Household table.

Moreover,

2. To achieve 2NF normalization, new parent tables were created where all attributes rely directly on the primary key.

Example is the case of the HOUSING CONDITION table, which was broken further into DWELLING TYPE, OUTER WALL MATERIAL, FOOR MATERIAL, ROOF MATERIAL, TENURE TYPE, OWNERSHIP TYPE, LIGTHING SOURCE, WATER SUPPLY, COOKING FUEL, COOKING SPACE, BATHING FACILITY, TOILET FACILITY, SOLID WASTE DISPOSAL and LIQUID WASTE DISPOSAL tables, to ensure their attributes rely solely on the Primary Key.

Also, a RELATIONSHIP table was created to achieve 2NF normalization between Household Heads and Household Members. This ensures that there is no duplication of Relationship information to Head of Household attributes and only ensure all attributes, rely on the primary key. Same was done with attributes Destination Town/Village name and code, Destination Country name and code in Absent and Emigrant entities respectively.

Again, since not all district types have a sub-district but METROPOLITAN, a new table Metro-Sub-District table was created to link Sub-district with Metropolitan.

3. To achieve 3NF, calculated fields were removed from the HOUSEHOLD table and Agriculture table. With SQL the same TOTAL fields can be calculated using an SQL query. For example, in order to get the total number of males in the USUAL HOUSEHOLD MEMBERS table,

```
SELECT count (*)  
  
FROM USUAL_HOUSEHOLD_MEMBERS  
  
WHERE sex = "male"
```

## NORMALIZED TABLE

ENTITIES	ATTRIBUTES
SUPERVISOR	Supervisor ID (PK) Supervisor Name Telephone Number Date Verified
ENUMERATOR	Enumerator ID (PK) Enumerator Name Telephone Number Supervisor ID (FK) Date Completed
REGION	Region ID (PK) Region Name
DISTRICT	District ID (PK) District Name District Type (district, municipal or metro.) (FK)
SUB-DISTRICT	Sub-District ID (PK) Sub-District Name
LOCALITY	Locality ID (PK) Locality Name
ENUMERATION AREA	Enumeration Area Code (PK) Enumeration Area type
RELATIONSHIP	Household Head ID (PK) Household Head Name Household Head Contact 1 Household Head Contact 2
RESIDENCE TYPE	Residence Type Code (PK) Residence Type Name
HOUSEHOLD	Household ID (PK) Enumeration Area ID (FK) Region ID (FK) District ID (FK) Sub-District ID (FK) Locality Number/ID (FK) Street Address House/Compound/Group Quarters Description ECG Number/NHIS Number/VRA Number/Other Number Household Head ID (FK) Structure number of house/compound Total household members Type of housing residence (FK) Date Enumeration Started Date Enumeration Completed Total Number of Visits Number of Forms Used

HOUSEHOLD STATUS	Household Status Code/ID (usual, visitor, absent) (PK) Household Status
USUAL HOUSEHOLD MEMBERS (A)	Household Member ID (PK) Household ID (FK) First Name Last Name age Sex Relations to Head code (FK) Household Status Code/ID (FK)
VISITORS (B)	Household Member ID (PK) Household ID (FK) First Name age Sex Relations to Head code (FK) Household Status Code/ID (FK)
REGION AND COUNTRY	Region/Country Code (PK) Region/Country name
ABSENT MEMBERS (C)	Household Member ID (PK) Household ID (FK) First Name Last Name Relations to Head code age Sex Destination Region/Country Code (FK) Number of Months Absent Household Status Code/ID (FK)
ACTIVITY ABROAD	Activity Abroad Code (PK) Activity Abroad Name
EMIGRANTS	Household Member ID (PK) Household ID (FK) First Name Last Name Relations to Head Code (FK) age Sex Destination Country code (FK) Year of departure Activity Abroad code (FK) Number of Months Absent
NATIONALITY	Nationality Code (PK) Nationality Name
ETHNICITY GROUP	Ethnicity Code (PK) Ethnicity Group Name



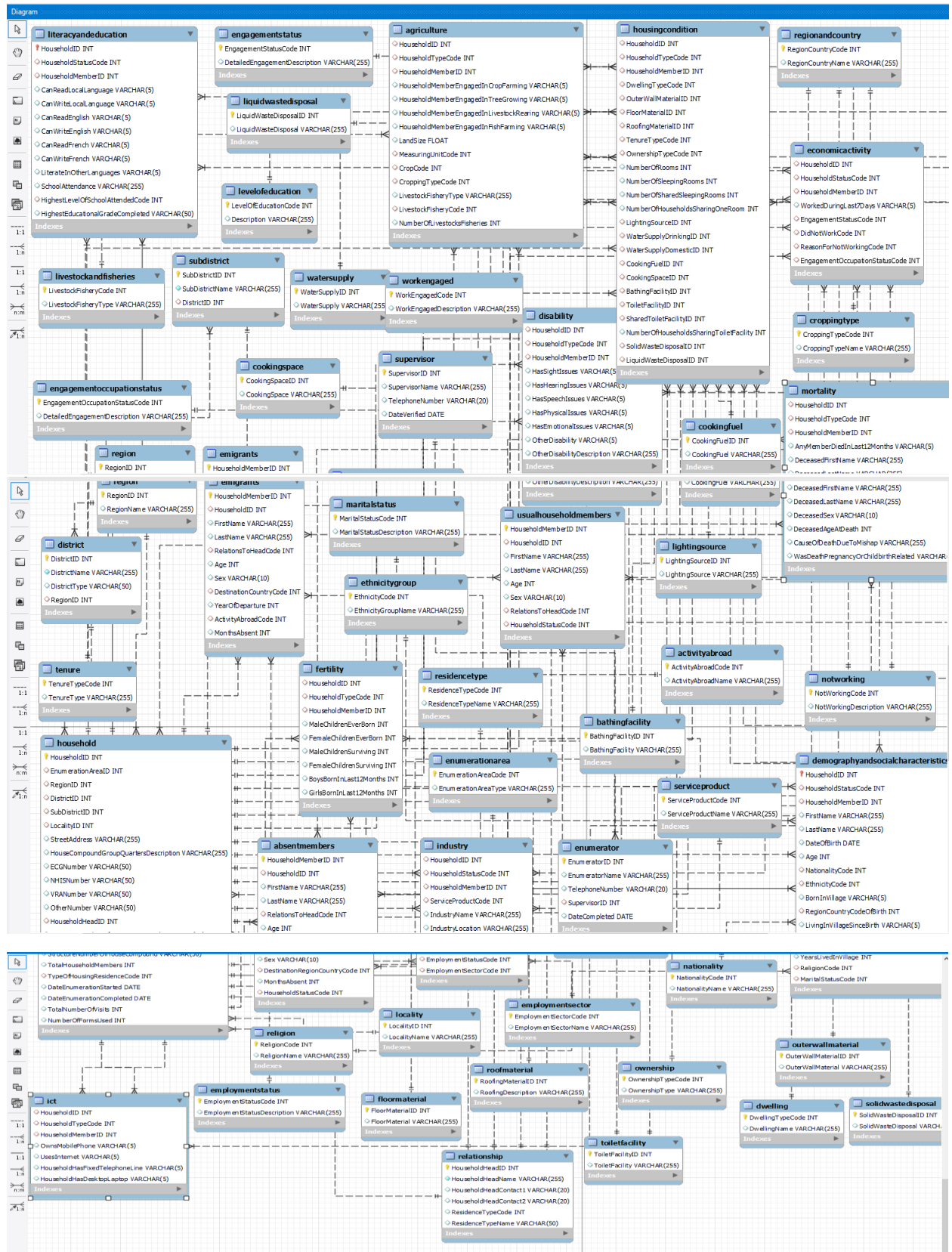
RELIGION	Religion Code (PK) Religion Name
DEMOGRAPHY AND SOCIAL CHARACTERISTICS	Household ID (PK) Household Status (PK) Household Member ID (PK) First Name Last Name Date of Birth Age Nationality code Ethnicity Code (FK) Born in this village/town (FK) Region/Country code of Birth (FK) Living in this village since birth Number of years lived in this village/town. Religion code (FK) Marital Status code
LITERACY AND EDUCATION	Household ID (PK) Household Status (PK) Household Member ID (PK) Can Read Local Language Can Write Local Language Can Read English Can Write English Can Read French Can Write French Literate in Other Languages School Attendance (enum never, now past) Highest level of School Attended/Attending code (fk) Highest Educational Grade Completed
LEVEL OF EDUCATION	Code (PK) Description
ECONOMIC ACITIVY	Household ID (FK) Household Status Type (FK) Household Member ID (FK) Worked during the last 7 days. Engagement Status Code (FK) Did not work Code. (FK) Reason for not working Code. (FK) Engagement/Occupation Status Code (FK)
ENGAGEDMENT STATUS	Engagement/Occupation Status Code (PK) Detailed Engagement Description (now, previously)
WORK ENGAGED	Work Engaged Code (PK) Work Engaged Description
NOT WORKING	Reason for not working code (PK) Reason for not working description

SERVICE/PRODUCT	Service/Product Code (PK) Service/Product Name
INDUSTRY	Household ID (FK) Household Status Type (FK) Household Member ID (FK) Service/product code (PK) Name of industry Location of industry Employment status code (FK) Employment sector code (FK)
EMPLOYEMENT STATUS	Employment Status Code (PK) Description of employment status
EMPLOYEMENT SECTOR	Code of employment sector (PK) Name of employment sector
DISABILITY	Household ID (FK) Household Type ID (FK) Household Member ID (FK) Has Sight Issues Has Hearing Issues Has Speech Issues Has Physical Issues Has Emotional Issues Other disability Other disability description
ICT	Household ID (FK) Household Type ID (FK) Household Member ID (FK) Owns Mobile Phone Uses Internet Household has Fixed Telephone Line Household has Desktop/Laptop
FERTILITY	Household ID (FK) Household Type ID (FK) Household Member ID (FK) Male Children Ever Born Female Children Ever Born Male Children Surviving Female Children Surviving Boys born in last 12 months. Girls born in last 12 months
MORTALITY	Household ID (FK) Household Type ID (FK) Household Member ID (FK) Any member died in last 12 months. Deceased First Name Deceased Last Name

	Deceased Sex Deceased Age at Death Cause of death due to mishap Was death pregnancy or childbirth related
AGRICULTURE	Household ID (FK) Household Type ID (FK) Household Member ID (FK) Household Member engaged in crop farming. Household Member engaged in tree growing. Household Member engaged in livestock rearing. Household Member engaged in fish farming. Land Size Measuring Unit Code (FK) Crop code (FK) Cropping type code (FK) Types of livestock/fisheries (FK) Livestock /Fishery code (FK) Number of Livestocks/Fisheries
CROP AND TREE PLANTING	Crop Type Name Crop code (PK)
MEASUREMENT UNIT	Measuring unit Code (PK) Name of Measuring Unit
CROPING TYPE	Cropping type code (PK) Cropping type name
LIVESTOCK AND FISHERIES	Livestock/Fishery Code (PK) Livestock/Fishery Type
HOUSING CONDITION	Household ID (FK) Household Type ID (FK) Household Member ID (FK) Dwelling Type ID (FK) Outer Wall Material ID (FK) Floor Material ID (FK) Roofing Material ID (FK) Tenure Type ID (FK) Ownership Type ID (FK) Number of Rooms (FK) Number of Sleeping Rooms (FK) Number of Shared Sleeping Rooms (FK) Number of Households Sharing One Room (FK) Lighting Source ID (FK) Water Supply Drinking ID (FK) Water Supply Domestic (FK) Cooking Fuel ID (FK) Cooking Space ID (FK) Bathing Facility ID (FK) Toilet Facility ID (FK)

	Shared Toilet Facility (FK) Number of Households Sharing Toilet Facility (FK) Solid Waste Disposal ID (FK) Liquid Waste Disposal ID (FK)
DWELLING	Type of Dwelling code (PK) Dwelling Name
ROOF MATERIAL	Roofing Code (PK) Roofing Description if 9 specify
OUTER WALL MATERIAL	Outer Wall Material ID (PK) Outer Wall Material
FLOOR MATERIAL	Floor Material ID (PK) Floor Material
TENURE	Tenure Type ID (PK) Tenure Type
OWNERSHIP	Ownership Type ID (PK) Ownership Type
LIGHTING SOURCE	Lighting Source ID (PK) Lighting Source
WATER SUPPLY	Water Supply ID (PK) Water Supply
COOKING FUEL	Cooking Fuel ID (PK) Cooking Fuel
COOKING SPACE	Cooking Space ID (PK) Cooking Space
BATHING FACILITY	Bathing Facility ID (PK) Bathing Facility
TOILET FACILITY	Toilet Facility ID (PK) Toilet Facility
SOLID WASTE DISPOSAL	Solid Waste Disposal ID (PK) Solid Waste Disposal
LIQUID	Liquid Waste Disposal ID (PK) Liquid Waste Disposal

## D) E-R DIAGRAM



## E) CREATING TWO TABLES WITH ON DELETE AND ON UPDATE USING ORACLE COMMAND

### -- Parent Table (HOUSEHOLD)

```
CREATE TABLE Household (  
    HouseholdID INT PRIMARY KEY,  
    EnumerationAreaID INT,  
    RegionID INT,  
    DistrictID INT,  
    SubDistrictID INT,  
    LocalityID INT,  
    StreetAddress VARCHAR(255),  
    HouseCompoundGroupQuartersDescription VARCHAR(255),  
    ECGNumber NHISNumber VRANumber OtherNumber,  
    HouseholdHeadID INT,  
    StructureNumberOfHouseCompound INT,  
    TotalHouseholdMembers INT,  
    TypeOfHousingResidenceCode INT,  
    DateEnumerationStarted DATE,  
    DateEnumerationCompleted DATE,  
    TotalNumberOfVisits INT,  
    NumberOfFormsUsed INT,  
    FOREIGN KEY (EnumerationAreaID) REFERENCES  
EnumerationArea(EnumerationAreaCode)  
        ON DELETE CASCADE  
        ON UPDATE CASCADE,  
    FOREIGN KEY (RegionID) REFERENCES Region(RegionID)  
        ON DELETE CASCADE
```

```

        ON UPDATE CASCADE,
FOREIGN KEY (DistrictID) REFERENCES District(DistrictID)
        ON DELETE CASCADE
        ON UPDATE CASCADE,
FOREIGN KEY (SubDistrictID) REFERENCES SubDistrict(SubDistrictID)
        ON DELETE CASCADE
        ON UPDATE CASCADE,
FOREIGN KEY (LocalityID) REFERENCES Locality(LocalityID)
        ON DELETE CASCADE
        ON UPDATE CASCADE,
FOREIGN KEY (HouseholdHeadID) REFERENCES
Relationship(HouseholdHeadID)
        ON DELETE CASCADE
        ON UPDATE CASCADE,
FOREIGN KEY (TypeOfHousingResidenceCode) REFERENCES
ResidenceType(ResidenceTypeCode)
        ON DELETE CASCADE
        ON UPDATE CASCADE
);

```

**-- Child Table: USUAL HOUSEHOLD MEMBERS (A)**

```

CREATE TABLE UsualHouseholdMembers (
    HouseholdMemberID INT PRIMARY KEY,
    HouseholdID INT,
    FirstName VARCHAR(255) NOT NULL,
    LastName VARCHAR(255) NOT NULL,
    Age INT,
    Sex CHAR(1),
    RelationsToHeadCode INT,

```

```
HouseholdStatusCode INT,  
FOREIGN KEY (HouseholdID) REFERENCES Household(HouseholdID)  
    ON DELETE CASCADE  
    ON UPDATE CASCADE,  
FOREIGN KEY (RelationsToHeadCode) REFERENCES  
Relationship(HouseholdHeadID)  
    ON DELETE CASCADE  
    ON UPDATE CASCADE,  
FOREIGN KEY (HouseholdStatusCode) REFERENCES  
HouseholdStatus(HouseholdStatusCode)  
    ON DELETE CASCADE  
    ON UPDATE CASCADE  
);
```



## THE REST OF THE TABLES

### -- Table for SUPERVISOR

```
CREATE TABLE Supervisor (  
    SupervisorID INT PRIMARY KEY,  
    SupervisorName VARCHAR(255),  
    TelephoneNumber VARCHAR(20),  
    DateVerified DATE  
);
```

### -- Table for ENUMERATOR

```
CREATE TABLE Enumerator (  
    EnumeratorID INT PRIMARY KEY,  
    EnumeratorName VARCHAR(255),  
    TelephoneNumber VARCHAR(20),  
    SupervisorID INT,  
    DateCompleted DATE,  
    FOREIGN KEY (SupervisorID) REFERENCES Supervisor(SupervisorID) ON  
    DELETE CASCADE ON UPDATE CASCADE  
);
```

### -- Table for REGION

```
CREATE TABLE Region (  
    RegionID INT PRIMARY KEY,  
    RegionName VARCHAR(255)  
);
```

**-- Table for DISTRICT**

```
CREATE TABLE District (  
    DistrictID INT PRIMARY KEY,  
    DistrictName VARCHAR(255),  
    DistrictType VARCHAR(50),  
    RegionID INT,  
    FOREIGN KEY (RegionID) REFERENCES Region(RegionID) ON DELETE  
    CASCADE ON UPDATE CASCADE  
);
```

**-- Table for SUB-DISTRICT**

```
CREATE TABLE SubDistrict (  
    SubDistrictID INT PRIMARY KEY,  
    SubDistrictName VARCHAR(255),  
    DistrictID INT,  
    FOREIGN KEY (DistrictID) REFERENCES District(DistrictID) ON DELETE  
    CASCADE ON UPDATE CASCADE  
);
```

**-- Table for LOCALITY**

```
CREATE TABLE Locality (  
    LocalityID INT PRIMARY KEY,  
    LocalityName VARCHAR(255),  
    SubDistrictID INT,  
    FOREIGN KEY (SubDistrictID) REFERENCES SubDistrict(SubDistrictID)  
    ON DELETE CASCADE ON UPDATE CASCADE  
);
```

**-- Table for ENUMERATION AREA**

```
CREATE TABLE EnumerationArea (  
    EnumerationAreaCode INT PRIMARY KEY,  
    EnumerationAreaType VARCHAR(255),  
    RegionID INT,  
    FOREIGN KEY (RegionID) REFERENCES Region(RegionID) ON DELETE  
    CASCADE ON UPDATE CASCADE  
);
```

**-- Table for RELATIONSHIP**

```
CREATE TABLE Relationship (  
    HouseholdHeadID INT PRIMARY KEY,  
    HouseholdHeadName VARCHAR(255),  
    HouseholdHeadContact1 VARCHAR(20),  
    HouseholdHeadContact2 VARCHAR(20),  
    RegionID INT,  
    FOREIGN KEY (RegionID) REFERENCES Region(RegionID) ON DELETE  
    CASCADE ON UPDATE CASCADE  
);
```

**-- Table for RESIDENCE TYPE**

```
CREATE TABLE ResidenceType (  
    ResidenceTypeCode INT PRIMARY KEY,  
    ResidenceTypeName VARCHAR(255)  
);
```

**-- Table for HOUSEHOLD**

```
CREATE TABLE Household (  
    HouseholdID INT PRIMARY KEY,  
    EnumerationAreaID INT,  
    RegionID INT,  
    DistrictID INT,  
    SubDistrictID INT,  
    LocalityID INT,  
    StreetAddress VARCHAR(255),  
    HouseCompoundGroupQuartersDescription VARCHAR(255),  
    ECGNumber VARCHAR(50),  
    NHISNumber VARCHAR(50),  
    VRANumber VARCHAR(50),  
    OtherNumber VARCHAR(50),  
    HouseholdHeadID INT,  
    StructureNumberOfHouseCompound VARCHAR(50),  
    TotalHouseholdMembers INT,  
    TypeOfHousingResidenceCode INT,  
    DateEnumerationStarted DATE,  
    DateEnumerationCompleted DATE,  
    TotalNumberOfVisits INT,  
    NumberOfFormsUsed INT,  
    FOREIGN KEY (EnumerationAreaID) REFERENCES  
EnumerationArea(EnumerationAreaCode) ON DELETE CASCADE ON UPDATE  
CASCADE,  
    FOREIGN KEY (RegionID) REFERENCES Region(RegionID) ON DELETE  
CASCADE ON UPDATE CASCADE,  
    FOREIGN KEY (DistrictID) REFERENCES District(DistrictID) ON DELETE  
CASCADE ON UPDATE CASCADE,
```

```

    FOREIGN KEY (SubDistrictID) REFERENCES SubDistrict(SubDistrictID)
    ON DELETE CASCADE ON UPDATE CASCADE,

    FOREIGN KEY (LocalityID) REFERENCES Locality(LocalityID) ON DELETE
    CASCADE ON UPDATE CASCADE,

    FOREIGN KEY (HouseholdHeadID) REFERENCES
    Relationship(HouseholdHeadID) ON DELETE CASCADE ON UPDATE CASCADE,

    FOREIGN KEY (TypeOfHousingResidenceCode) REFERENCES
    ResidenceType(ResidenceTypeCode) ON DELETE CASCADE ON UPDATE CASCADE
);

```

**-- Table for HOUSEHOLD STATUS**

```

CREATE TABLE HouseholdStatus (
    HouseholdStatusCode INT PRIMARY KEY,
    HouseholdStatus VARCHAR(255)
);

```

**-- Table for USUAL HOUSEHOLD MEMBERS**

```

CREATE TABLE UsualHouseholdMembers (
    HouseholdMemberID INT PRIMARY KEY,
    HouseholdID INT,
    FirstName VARCHAR(255),
    LastName VARCHAR(255),
    Age INT,
    Sex VARCHAR(10),
    RelationsToHeadCode INT,
    HouseholdStatusCode INT,

    FOREIGN KEY (HouseholdID) REFERENCES Household(HouseholdID) ON
    DELETE CASCADE ON UPDATE CASCADE,

    FOREIGN KEY (RelationsToHeadCode) REFERENCES
    Relationship(HouseholdHeadID) ON DELETE CASCADE ON UPDATE CASCADE,

```

```
        FOREIGN KEY (HouseholdStatusCode) REFERENCES  
HouseholdStatus(HouseholdStatusCode) ON DELETE CASCADE ON UPDATE  
CASCADE
```

```
);
```

#### **-- Table for VISITORS**

```
CREATE TABLE Visitors (  
    HouseholdMemberID INT PRIMARY KEY,  
    HouseholdID INT,  
    FirstName VARCHAR(255),  
    Age INT,  
    Sex VARCHAR(10),  
    RelationsToHeadCode INT,  
    HouseholdStatusCode INT,  
    FOREIGN KEY (HouseholdID) REFERENCES Household(HouseholdID) ON  
DELETE CASCADE ON UPDATE CASCADE,  
    FOREIGN KEY (RelationsToHeadCode) REFERENCES  
Relationship(HouseholdHeadID) ON DELETE CASCADE ON UPDATE CASCADE,  
    FOREIGN KEY (HouseholdStatusCode) REFERENCES  
HouseholdStatus(HouseholdStatusCode) ON DELETE CASCADE ON UPDATE  
CASCADE  
);
```

#### **-- Table for ABSENT MEMBERS**

```
CREATE TABLE AbsentMembers (  
    HouseholdMemberID INT PRIMARY KEY,  
    HouseholdID INT,  
    FirstName VARCHAR(255),  
    LastName VARCHAR(255),  
    RelationsToHeadCode INT,
```

```

    Age INT,
    Sex VARCHAR(10),
    DestinationRegionCountryCode INT,
    MonthsAbsent INT,
    HouseholdStatusCode INT,
    FOREIGN KEY (HouseholdID) REFERENCES Household(HouseholdID) ON
DELETE CASCADE ON UPDATE CASCADE,
    FOREIGN KEY (RelationsToHeadCode) REFERENCES
Relationship(HouseholdHeadID) ON DELETE CASCADE ON UPDATE CASCADE,
    FOREIGN KEY (DestinationRegionCountryCode) REFERENCES
RegionAndCountry(RegionCountryCode) ON DELETE CASCADE ON UPDATE
CASCADE,
    FOREIGN KEY (HouseholdStatusCode) REFERENCES
HouseholdStatus(HouseholdStatusCode) ON DELETE CASCADE ON UPDATE
CASCADE
);

```

**-- Table for ACTIVITY ABROAD**

```

CREATE TABLE ActivityAbroad (
    ActivityAbroadCode INT PRIMARY KEY,
    ActivityAbroadName VARCHAR(255)
);

```

**-- Table for EMIGRANTS**

```

CREATE TABLE Emigrants (
    HouseholdMemberID INT PRIMARY KEY,
    HouseholdID INT,
    FirstName VARCHAR(255),
    LastName VARCHAR(255),
    RelationsToHeadCode INT,

```

```

    Age INT,
    Sex VARCHAR(10),
    DestinationCountryCode INT,
    YearOfDeparture INT,
    ActivityAbroadCode INT,
    MonthsAbsent INT,
    FOREIGN KEY (HouseholdID) REFERENCES Household(HouseholdID) ON
DELETE CASCADE ON UPDATE CASCADE,
    FOREIGN KEY (RelationsToHeadCode) REFERENCES
Relationship(HouseholdHeadID) ON DELETE CASCADE ON UPDATE CASCADE,
    FOREIGN KEY (DestinationCountryCode) REFERENCES
RegionAndCountry(RegionCountryCode) ON DELETE CASCADE ON UPDATE
CASCADE,
    FOREIGN KEY (ActivityAbroadCode) REFERENCES
ActivityAbroad(ActivityAbroadCode) ON DELETE CASCADE ON UPDATE CASCADE
);

```

**-- Table for NATIONALITY**

```

CREATE TABLE Nationality (
    NationalityCode INT PRIMARY KEY,
    NationalityName VARCHAR(255)
);

```

**-- Table for ETHNICITY GROUP**

```

CREATE TABLE EthnicityGroup (
    EthnicityCode INT PRIMARY KEY,
    EthnicityGroupName VARCHAR(255)
);

```



**-- Table for RELIGION**

```
CREATE TABLE Religion (  
    ReligionCode INT PRIMARY KEY,  
    ReligionName VARCHAR(255)  
);
```

**-- Table for DEMOGRAPHY AND SOCIAL CHARACTERISTICS**

```
CREATE TABLE DemographyAndSocialCharacteristics (  
    HouseholdID INT PRIMARY KEY,  
    HouseholdStatusCode INT,  
    HouseholdMemberID INT,  
    FirstName VARCHAR(255),  
    LastName VARCHAR(255),  
    DateOfBirth DATE,  
    Age INT,  
    NationalityCode INT,  
    EthnicityCode INT,  
    BornInVillage VARCHAR(5),  
    RegionCountryCodeOfBirth INT,  
    LivingInVillageSinceBirth VARCHAR(5),  
    YearsLivedInVillage INT,  
    ReligionCode INT,  
    MaritalStatusCode INT,  
    FOREIGN KEY (HouseholdID) REFERENCES Household(HouseholdID) ON  
DELETE CASCADE ON UPDATE CASCADE,  
    FOREIGN KEY (HouseholdStatusCode) REFERENCES  
HouseholdStatus(HouseholdStatusCode) ON DELETE CASCADE ON UPDATE  
CASCADE,
```

```
    FOREIGN KEY (HouseholdMemberID) REFERENCES Household(HouseholdID)
    ON DELETE CASCADE ON UPDATE CASCADE,
```

```
    FOREIGN KEY (NationalityCode) REFERENCES
    Nationality(NationalityCode) ON DELETE CASCADE ON UPDATE CASCADE,
```

```
    FOREIGN KEY (EthnicityCode) REFERENCES
    EthnicityGroup(EthnicityCode) ON DELETE CASCADE ON UPDATE CASCADE,
```

```
    FOREIGN KEY (RegionCountryCodeOfBirth) REFERENCES
    RegionAndCountry(RegionCountryCode) ON DELETE CASCADE ON UPDATE
    CASCADE,
```

```
    FOREIGN KEY (ReligionCode) REFERENCES Religion(ReligionCode) ON
    DELETE CASCADE ON UPDATE CASCADE,
```

```
    FOREIGN KEY (MaritalStatusCode) REFERENCES
    MaritalStatus(MaritalStatusCode) ON DELETE CASCADE ON UPDATE CASCADE
);
```

#### **-- Table for LITERACY AND EDUCATION**

```
CREATE TABLE LiteracyAndEducation (
    HouseholdID INT PRIMARY KEY,
    HouseholdStatusCode INT,
    HouseholdMemberID INT,
    CanReadLocalLanguage VARCHAR(5),
    CanWriteLocalLanguage VARCHAR(5),
    CanReadEnglish VARCHAR(5),
    CanWriteEnglish VARCHAR(5),
    CanReadFrench VARCHAR(5),
    CanWriteFrench VARCHAR(5),
    LiterateInOtherLanguages VARCHAR(5),
    SchoolAttendance VARCHAR(255),
    HighestLevelOfSchoolAttendedCode INT,
    HighestEducationalGradeCompleted VARCHAR(50),
```

```

    FOREIGN KEY (HouseholdID) REFERENCES Household(HouseholdID) ON
DELETE CASCADE ON UPDATE CASCADE,

    FOREIGN KEY (HouseholdStatusCode) REFERENCES
HouseholdStatus(HouseholdStatusCode) ON DELETE CASCADE ON UPDATE
CASCADE,

    FOREIGN KEY (HouseholdMemberID) REFERENCES Household(HouseholdID)
ON DELETE CASCADE ON UPDATE CASCADE,

    FOREIGN KEY (HighestLevelOfSchoolAttendedCode) REFERENCES
LevelOfEducation(LevelOfEducationCode) ON DELETE CASCADE ON UPDATE
CASCADE
);

```

```

-- Table for MARITAL STATUS
CREATE TABLE MaritalStatus (
    MaritalStatusCode INT PRIMARY KEY,
    MaritalStatusDescription VARCHAR(255)
);

```

```

-- Table for LEVEL OF EDUCATION
CREATE TABLE LevelOfEducation (
    LevelOfEducationCode INT PRIMARY KEY,
    Description VARCHAR(255)
);

```

```

-- Table for ECONOMIC ACTIVITY
CREATE TABLE EconomicActivity (
    HouseholdID INT,
    HouseholdStatusCode INT,
    HouseholdMemberID INT,
    WorkedDuringLast7Days VARCHAR(5),

```

```

EngagementStatusCode INT,
DidNotWorkCode INT,
ReasonForNotWorkingCode INT,
EngagementOccupationStatusCode INT,
FOREIGN KEY (HouseholdID) REFERENCES Household(HouseholdID) ON
DELETE CASCADE ON UPDATE CASCADE,
FOREIGN KEY (HouseholdStatusCode) REFERENCES
HouseholdStatus(HouseholdStatusCode) ON DELETE CASCADE ON UPDATE
CASCADE,
FOREIGN KEY (HouseholdMemberID) REFERENCES Household(HouseholdID)
ON DELETE CASCADE ON UPDATE CASCADE,
FOREIGN KEY (EngagementStatusCode) REFERENCES
EngagementStatus(EngagementStatusCode) ON DELETE CASCADE ON UPDATE
CASCADE,
FOREIGN KEY (DidNotWorkCode) REFERENCES NotWorking(NotWorkingCode)
ON DELETE CASCADE ON UPDATE CASCADE,
FOREIGN KEY (ReasonForNotWorkingCode) REFERENCES
NotWorking(NotWorkingCode) ON DELETE CASCADE ON UPDATE CASCADE,
FOREIGN KEY (EngagementOccupationStatusCode) REFERENCES
EngagementOccupationStatus(EngagementOccupationStatusCode) ON DELETE
CASCADE ON UPDATE CASCADE
);

```

**-- Table for ENGAGEMENT/OCCUPATION STATUS**

```

CREATE TABLE EngagementOccupationStatus (
    EngagementOccupationStatusCode INT PRIMARY KEY,
    DetailedEngagementDescription VARCHAR(255)
);

```

**-- Table for ENGAGEMENT STATUS**

```

CREATE TABLE EngagementStatus (
    EngagementStatusCode INT PRIMARY KEY,

```

```
        DetailedEngagementDescription VARCHAR(255)
    );
```

**-- Table for WORK ENGAGED**

```
CREATE TABLE WorkEngaged (
    WorkEngagedCode INT PRIMARY KEY,
    WorkEngagedDescription VARCHAR(255)
);
```

**-- Table for NOT WORKING**

```
CREATE TABLE NotWorking (
    NotWorkingCode INT PRIMARY KEY,
    NotWorkingDescription VARCHAR(255)
);
```

**-- Table for SERVICE/PRODUCT**

```
CREATE TABLE ServiceProduct (
    ServiceProductCode INT PRIMARY KEY,
    ServiceProductName VARCHAR(255)
);
```

**-- Table for INDUSTRY**

```
CREATE TABLE Industry (
    HouseholdID INT,
    HouseholdStatusCode INT,
    HouseholdMemberID INT,
    ServiceProductCode INT,
    IndustryName VARCHAR(255),
```

```

IndustryLocation VARCHAR(255),
EmploymentStatusCode INT,
EmploymentSectorCode INT,
FOREIGN KEY (HouseholdID) REFERENCES Household(HouseholdID) ON
DELETE CASCADE ON UPDATE CASCADE,
FOREIGN KEY (HouseholdStatusCode) REFERENCES
HouseholdStatus(HouseholdStatusCode) ON DELETE CASCADE ON UPDATE
CASCADE,
FOREIGN KEY (HouseholdMemberID) REFERENCES Household(HouseholdID)
ON DELETE CASCADE ON UPDATE CASCADE,
FOREIGN KEY (ServiceProductCode) REFERENCES
ServiceProduct(ServiceProductCode) ON DELETE CASCADE ON UPDATE
CASCADE,
FOREIGN KEY (EmploymentStatusCode) REFERENCES
EmploymentStatus(EmploymentStatusCode) ON DELETE CASCADE ON UPDATE
CASCADE,
FOREIGN KEY (EmploymentSectorCode) REFERENCES
EmploymentSector(EmploymentSectorCode) ON DELETE CASCADE ON UPDATE
CASCADE
);

```

**-- Table for EMPLOYMENT STATUS**

```

CREATE TABLE EmploymentStatus (
    EmploymentStatusCode INT PRIMARY KEY,
    EmploymentStatusDescription VARCHAR(255)
);

```

**-- Table for EMPLOYMENT SECTOR**

```

CREATE TABLE EmploymentSector (
    EmploymentSectorCode INT PRIMARY KEY,
    EmploymentSectorName VARCHAR(255)
);

```

```
);
```

**-- Table for DISABILITY**

```
CREATE TABLE Disability (  
    HouseholdID INT,  
    HouseholdTypeCode INT,  
    HouseholdMemberID INT,  
    HasSightIssues VARCHAR(5),  
    HasHearingIssues VARCHAR(5),  
    HasSpeechIssues VARCHAR(5),  
    HasPhysicalIssues VARCHAR(5),  
    HasEmotionalIssues VARCHAR(5),  
    OtherDisability VARCHAR(5),  
    OtherDisabilityDescription VARCHAR(255),  
    FOREIGN KEY (HouseholdID) REFERENCES Household(HouseholdID) ON  
DELETE CASCADE ON UPDATE CASCADE,  
    FOREIGN KEY (HouseholdTypeCode) REFERENCES  
HouseholdStatus(HouseholdStatusCode) ON DELETE CASCADE ON UPDATE  
CASCADE,  
    FOREIGN KEY (HouseholdMemberID) REFERENCES Household(HouseholdID)  
ON DELETE CASCADE ON UPDATE CASCADE  
);
```

**-- Table for ICT**

```
CREATE TABLE ICT (  
    HouseholdID INT,  
    HouseholdTypeCode INT,  
    HouseholdMemberID INT,  
    OwnsMobilePhone VARCHAR(5),
```

```

    UsesInternet VARCHAR(5),
    HouseholdHasFixedTelephoneLine VARCHAR(5),
    HouseholdHasDesktopLaptop VARCHAR(5),
    FOREIGN KEY (HouseholdID) REFERENCES Household(HouseholdID) ON
DELETE CASCADE ON UPDATE CASCADE,
    FOREIGN KEY (HouseholdTypeCode) REFERENCES
HouseholdStatus(HouseholdStatusCode) ON DELETE CASCADE ON UPDATE
CASCADE,
    FOREIGN KEY (HouseholdMemberID) REFERENCES Household(HouseholdID)
ON DELETE CASCADE ON UPDATE CASCADE
);

```

**-- Table for FERTILITY**

```

CREATE TABLE Fertility (
    HouseholdID INT,
    HouseholdTypeCode INT,
    HouseholdMemberID INT,
    MaleChildrenEverBorn INT,
    FemaleChildrenEverBorn INT,
    MaleChildrenSurviving INT,
    FemaleChildrenSurviving INT,
    BoysBornInLast12Months INT,
    GirlsBornInLast12Months INT,
    FOREIGN KEY (HouseholdID) REFERENCES Household(HouseholdID) ON
DELETE CASCADE ON UPDATE CASCADE,
    FOREIGN KEY (HouseholdTypeCode) REFERENCES
HouseholdStatus(HouseholdStatusCode) ON DELETE CASCADE ON UPDATE
CASCADE,
    FOREIGN KEY (HouseholdMemberID) REFERENCES Household(HouseholdID)
ON DELETE CASCADE ON UPDATE CASCADE
);

```



**-- Table for MORTALITY**

```
CREATE TABLE Mortality (  
    HouseholdID INT,  
    HouseholdTypeCode INT,  
    HouseholdMemberID INT,  
    AnyMemberDiedInLast12Months VARCHAR(5),  
    DeceasedFirstName VARCHAR(255),  
    DeceasedLastName VARCHAR(255),  
    DeceasedSex VARCHAR(10),  
    DeceasedAgeAtDeath INT,  
    CauseOfDeathDueToMishap VARCHAR(255),  
    WasDeathPregnancyOrChildbirthRelated VARCHAR(5),  
    FOREIGN KEY (HouseholdID) REFERENCES Household(HouseholdID) ON  
DELETE CASCADE ON UPDATE CASCADE,  
    FOREIGN KEY (HouseholdTypeCode) REFERENCES  
HouseholdStatus(HouseholdStatusCode) ON DELETE CASCADE ON UPDATE  
CASCADE,  
    FOREIGN KEY (HouseholdMemberID) REFERENCES Household(HouseholdID)  
ON DELETE CASCADE ON UPDATE CASCADE  
);
```

**-- Table for AGRICULTURE**

```
CREATE TABLE Agriculture (  
    HouseholdID INT,  
    HouseholdTypeCode INT,  
    HouseholdMemberID INT,  
    HouseholdMemberEngagedInCropFarming VARCHAR(5),  
    HouseholdMemberEngagedInTreeGrowing VARCHAR(5),  
    HouseholdMemberEngagedInLivestockRearing VARCHAR(5),
```

```

HouseholdMemberEngagedInFishFarming VARCHAR(5),
LandSize FLOAT,
MeasuringUnitCode INT,
CropCode INT,
CroppingTypeCode INT,
LivestockFisheryType VARCHAR(255),
LivestockFisheryCode INT,
NumberOfLivestocksFisheries INT,
FOREIGN KEY (HouseholdID) REFERENCES Household(HouseholdID) ON
DELETE CASCADE ON UPDATE CASCADE,
FOREIGN KEY (HouseholdTypeCode) REFERENCES
HouseholdStatus(HouseholdStatusCode) ON DELETE CASCADE ON UPDATE
CASCADE,
FOREIGN KEY (HouseholdMemberID) REFERENCES Household(HouseholdID)
ON DELETE CASCADE ON UPDATE CASCADE,
FOREIGN KEY (MeasuringUnitCode) REFERENCES
MeasurementUnit(MeasuringUnitCode) ON DELETE CASCADE ON UPDATE
CASCADE,
FOREIGN KEY (CropCode) REFERENCES CropAndTreePlanting(CropCode) ON
DELETE CASCADE ON UPDATE CASCADE,
FOREIGN KEY (CroppingTypeCode) REFERENCES
CroppingType(CroppingTypeCode) ON DELETE CASCADE ON UPDATE CASCADE,
FOREIGN KEY (LivestockFisheryCode) REFERENCES
LivestockAndFisheries(LivestockFisheryCode) ON DELETE CASCADE ON
UPDATE CASCADE
);

```

```
-- Table for CROP AND TREE PLANTING
```

```

CREATE TABLE CropAndTreePlanting (
    CropCode INT PRIMARY KEY,
    CropTypeName VARCHAR(255)

```

```
);
```

**-- Table for MEASUREMENT UNIT**

```
CREATE TABLE MeasurementUnit (  
    MeasuringUnitCode INT PRIMARY KEY,  
    MeasuringUnitName VARCHAR(255)  
);
```

**-- Table for CROPPING TYPE**

```
CREATE TABLE CroppingType (  
    CroppingTypeCode INT PRIMARY KEY,  
    CroppingTypeName VARCHAR(255)  
);
```

**-- Table for LIVESTOCK AND FISHERIES**

```
CREATE TABLE LivestockAndFisheries (  
    LivestockFisheryCode INT PRIMARY KEY,  
    LivestockFisheryType VARCHAR(255)  
);
```

**-- Table for HOUSING CONDITION**

```
CREATE TABLE HousingCondition (  
    HouseholdID INT,  
    HouseholdTypeCode INT,  
    HouseholdMemberID INT,  
    DwellingTypeCode INT,  
    OuterWallMaterialID INT,  
    FloorMaterialID INT,
```

```

RoofingMaterialID INT,
TenureTypeCode INT,
OwnershipTypeCode INT,
NumberOfRooms INT,
NumberOfSleepingRooms INT,
NumberOfSharedSleepingRooms INT,
NumberOfHouseholdsSharingOneRoom INT,
LightingSourceID INT,
WaterSupplyDrinkingID INT,
WaterSupplyDomesticID INT,
CookingFuelID INT,
CookingSpaceID INT,
BathingFacilityID INT,
ToiletFacilityID INT,
SharedToiletFacilityID INT,
NumberOfHouseholdsSharingToiletFacility INT,
SolidWasteDisposalID INT,
LiquidWasteDisposalID INT,
FOREIGN KEY (HouseholdID) REFERENCES Household(HouseholdID) ON
DELETE CASCADE ON UPDATE CASCADE,
FOREIGN KEY (HouseholdTypeCode) REFERENCES
HouseholdStatus(HouseholdStatusCode) ON DELETE CASCADE ON UPDATE
CASCADE,
FOREIGN KEY (HouseholdMemberID) REFERENCES Household(HouseholdID)
ON DELETE CASCADE ON UPDATE CASCADE,
FOREIGN KEY (DwellingTypeCode) REFERENCES
Dwelling(DwellingTypeCode) ON DELETE CASCADE ON UPDATE CASCADE,
FOREIGN KEY (OuterWallMaterialID) REFERENCES
OuterWallMaterial(OuterWallMaterialID) ON DELETE CASCADE ON UPDATE
CASCADE,

```

```

    FOREIGN KEY (FloorMaterialID) REFERENCES
FloorMaterial(FloorMaterialID) ON DELETE CASCADE ON UPDATE CASCADE,

    FOREIGN KEY (RoofingMaterialID) REFERENCES
RoofMaterial(RoofingMaterialID) ON DELETE CASCADE ON UPDATE CASCADE,

    FOREIGN KEY (TenureTypeCode) REFERENCES Tenure(TenureTypeCode) ON
DELETE CASCADE ON UPDATE CASCADE,

    FOREIGN KEY (OwnershipTypeCode) REFERENCES
Ownership(OwnershipTypeCode) ON DELETE CASCADE ON UPDATE CASCADE,

    FOREIGN KEY (LightingSourceID) REFERENCES
LightingSource(LightingSourceID) ON DELETE CASCADE ON UPDATE CASCADE,

    FOREIGN KEY (WaterSupplyDrinkingID) REFERENCES
WaterSupply(WaterSupplyID) ON DELETE CASCADE ON UPDATE CASCADE,

    FOREIGN KEY (WaterSupplyDomesticID) REFERENCES
WaterSupply(WaterSupplyID) ON DELETE CASCADE ON UPDATE CASCADE,

    FOREIGN KEY (CookingFuelID) REFERENCES CookingFuel(CookingFuelID)
ON DELETE CASCADE ON UPDATE CASCADE,

    FOREIGN KEY (CookingSpaceID) REFERENCES
CookingSpace(CookingSpaceID) ON DELETE CASCADE ON UPDATE CASCADE,

    FOREIGN KEY (BathingFacilityID) REFERENCES
BathingFacility(BathingFacilityID) ON DELETE CASCADE ON UPDATE
CASCADE,

    FOREIGN KEY (ToiletFacilityID) REFERENCES
ToiletFacility(ToiletFacilityID) ON DELETE CASCADE ON UPDATE CASCADE,

    FOREIGN KEY (SharedToiletFacilityID) REFERENCES
ToiletFacility(ToiletFacilityID) ON DELETE CASCADE ON UPDATE CASCADE,

    FOREIGN KEY (SolidWasteDisposalID) REFERENCES
SolidWasteDisposal(SolidWasteDisposalID) ON DELETE CASCADE ON UPDATE
CASCADE,

    FOREIGN KEY (LiquidWasteDisposalID) REFERENCES
LiquidWasteDisposal(LiquidWasteDisposalID) ON DELETE CASCADE ON UPDATE
CASCADE
);

```

**-- Table for DWELLING**

```
CREATE TABLE Dwelling (  
    DwellingTypeCode INT PRIMARY KEY,  
    DwellingName VARCHAR(255)  
);
```

**-- Table for ROOF MATERIAL**

```
CREATE TABLE RoofMaterial (  
    RoofingMaterialID INT PRIMARY KEY,  
    RoofingDescription VARCHAR(255)  
);
```

**-- Table for OUTER WALL MATERIAL**

```
CREATE TABLE OuterWallMaterial (  
    OuterWallMaterialID INT PRIMARY KEY,  
    OuterWallMaterial VARCHAR(255)  
);
```

**-- Table for FLOOR MATERIAL**

```
CREATE TABLE FloorMaterial (  
    FloorMaterialID INT PRIMARY KEY,  
    FloorMaterial VARCHAR(255)  
);
```

**-- Table for TENURE**

```
CREATE TABLE Tenure (  
    TenureTypeCode INT PRIMARY KEY,  
    TenureType VARCHAR(255)
```

```
);
```

**-- Table for OWNERSHIP**

```
CREATE TABLE Ownership (  
    OwnershipTypeCode INT PRIMARY KEY,  
    OwnershipType VARCHAR(255)  
);
```

**-- Table for LIGHTING SOURCE**

```
CREATE TABLE LightingSource (  
    LightingSourceID INT PRIMARY KEY,  
    LightingSource VARCHAR(255)  
);
```

**-- Table for WATER SUPPLY**

```
CREATE TABLE WaterSupply (  
    WaterSupplyID INT PRIMARY KEY,  
    WaterSupply VARCHAR(255)  
);
```

**-- Table for COOKING FUEL**

```
CREATE TABLE CookingFuel (  
    CookingFuelID INT PRIMARY KEY,  
    CookingFuel VARCHAR(255)  
);
```

**-- Table for COOKING SPACE**

```
CREATE TABLE CookingSpace (  
    CookingSpaceID INT PRIMARY KEY,  
    CookingSpace VARCHAR(255)  
);
```

**-- Table for BATHING FACILITY**

```
CREATE TABLE BathingFacility (  
    BathingFacilityID INT PRIMARY KEY,  
    BathingFacility VARCHAR(255)  
);
```

**-- Table for TOILET FACILITY**

```
CREATE TABLE ToiletFacility (  
    ToiletFacilityID INT PRIMARY KEY,  
    ToiletFacility VARCHAR(255)  
);
```

**-- Table for SOLID WASTE DISPOSAL**

```
CREATE TABLE SolidWasteDisposal (  
    SolidWasteDisposalID INT PRIMARY KEY,  
    SolidWasteDisposal VARCHAR(255)  
);
```

**-- Table for LIQUID WASTE DISPOSAL**

```
CREATE TABLE LiquidWasteDisposal (  
    LiquidWasteDisposalID INT PRIMARY KEY,  
    LiquidWasteDisposal VARCHAR(255)  
);
```