**Create table syntax**

DROP DATABASE IF EXISTS `agriculture`; CREATE DATABASE IF NOT EXISTS `agriculture`;

USE `agriculture`;

🡪Create Table command for Table named ‘Farmer’

CREATE TABLE `farmer` (

`F\_ID` varchar(10) NOT NULL,

`Password` varchar(15) DEFAULT NULL,

`First\_name` varchar(30) DEFAULT NULL,

`Last\_name` varchar(30) DEFAULT NULL,

`state` varchar(25) DEFAULT NULL,

`district` varchar(25) DEFAULT NULL,

`Registration\_date` date DEFAULT NULL,

`Birth\_date` date DEFAULT NULL,

`Contact\_No` varchar(12) DEFAULT NULL,

`Yearly\_income` double DEFAULT NULL,

PRIMARY KEY (`F\_ID`),

CONSTRAINT `farmer\_chk\_1` CHECK ((length(\_cp850'Password') > 6))

);

🡪Create Table command for Table named ‘Farmer’

CREATE TABLE `farm` (

`F\_ID` varchar(10) NOT NULL,

`Farm\_ID` varchar(10) NOT NULL,

`Area\_of\_farm` float NOT NULL,

PRIMARY KEY (`Farm\_ID`),

KEY `F\_ID` (`F\_ID`),

CONSTRAINT `farm\_ibfk\_1` FOREIGN KEY (`F\_ID`) REFERENCES `farmer` (`F\_ID`)

);

🡪Create Table command for Table named ‘crop\_info’

CREATE TABLE `crop\_info` (

`crop\_ID` varchar(10) NOT NULL,

`crop\_name` varchar(30) NOT NULL,

PRIMARY KEY (`crop\_ID`)

);

🡪Create Table command for Table named ‘current\_season\_crop’

CREATE TABLE `current\_season\_crop` (

`F\_ID` varchar(10) NOT NULL,

`crop\_ID` varchar(10) NOT NULL,

`Farm\_ID` varchar(10) NOT NULL,

`Expected\_production` int NOT NULL,

`Expected\_price` float NOT NULL,

`sowing\_Month` int NOT NULL,

`harvest\_month` int NOT NULL,

`crop\_delivery\_month` int NOT NULL,

PRIMARY KEY (`F\_ID`,`Farm\_ID`,`sowing\_Month`,`harvest\_month`),

KEY `crop\_ID` (`crop\_ID`),

KEY `Farm\_ID` (`Farm\_ID`),

CONSTRAINT `current\_season\_crop\_ibfk\_1` FOREIGN KEY (`F\_ID`) REFERENCES `farmer` (`F\_ID`),

CONSTRAINT `current\_season\_crop\_ibfk\_2` FOREIGN KEY (`crop\_ID`) REFERENCES `crop\_info` (`crop\_ID`),

CONSTRAINT `current\_season\_crop\_ibfk\_3` FOREIGN KEY (`Farm\_ID`) REFERENCES `farm` (`Farm\_ID`)

);

🡪Create Table command for Table named ‘crop\_info’

CREATE TABLE `circulation\_deal` (

`CB\_ID` varchar(10) NOT NULL,

`TP\_ID` varchar(10) NOT NULL,

`Source\_latitude` decimal(9,7) NOT NULL,

`Source\_longitude` decimal(9,7) NOT NULL,

`Destination\_latitude` decimal(9,7) NOT NULL,

`Destination\_longitude` decimal(9,7) NOT NULL,

`item` varchar(30) NOT NULL,

`Payment\_type` varchar(7) NOT NULL,

`Amount\_Paid` float NOT NULL,

`Time\_of\_payment` datetime NOT NULL,

PRIMARY KEY (`CB\_ID`,`TP\_ID`,`Time\_of\_payment`),

KEY `TP\_ID` (`TP\_ID`),

CONSTRAINT `circulation\_deal\_ibfk\_1` FOREIGN KEY (`CB\_ID`) REFERENCES `crop\_buyer` (`CB\_ID`),

CONSTRAINT `circulation\_deal\_ibfk\_2` FOREIGN KEY (`TP\_ID`) REFERENCES `transportation\_provider` (`TP\_ID`)

);

🡪Create Table command for Table named ‘crop\_info’

CREATE TABLE `crop\_buyer` (

`CB\_ID` varchar(10) NOT NULL,

`Password` varchar(15) NOT NULL,

`First\_Name` varchar(30) NOT NULL,

`Last\_Name` varchar(30) NOT NULL,

`district` varchar(25) NOT NULL,

`state` varchar(25) NOT NULL,

`contact\_No` varchar(10) NOT NULL,

`Yearly\_income` float NOT NULL,

`Ratings` int NOT NULL,

`Total\_deals\_done` int NOT NULL,

`Registration\_Date` date NOT NULL,

`Birth\_date` date NOT NULL,

PRIMARY KEY (`CB\_ID`),

CONSTRAINT `crop\_buyer\_chk\_1` CHECK ((length(\_cp850'Password') > 6))

);

🡪Create Table command for Table named ‘crop\_buyer\_need’

CREATE TABLE `crop\_buyer\_need` (

`CB\_ID` varchar(10) NOT NULL,

`crop\_id` varchar(10) NOT NULL,

`Needed\_quantity` float NOT NULL,

`Affordable\_Price` float NOT NULL,

`Deadline\_month` varchar(13) NOT NULL,

PRIMARY KEY (`CB\_ID`),

KEY `crop\_id` (`crop\_id`),

CONSTRAINT `crop\_buyer\_need\_ibfk\_1` FOREIGN KEY (`CB\_ID`) REFERENCES `crop\_buyer` (`CB\_ID`),

CONSTRAINT `crop\_buyer\_need\_ibfk\_2` FOREIGN KEY (`crop\_id`) REFERENCES `crop\_info` (`crop\_ID`)

);

🡪Create Table command for Table named ‘deals\_with’

CREATE TABLE `deals\_with` (

`F\_ID` varchar(10) NOT NULL,

`CB\_ID` varchar(10) NOT NULL,

`crop\_ID` varchar(10) NOT NULL,

`quantity\_of\_crop` float NOT NULL,

`payment\_type` varchar(7) NOT NULL,

`Amount\_paid` float NOT NULL,

`deal\_time` datetime NOT NULL,

PRIMARY KEY (`F\_ID`,`CB\_ID`,`crop\_ID`,`deal\_time`),

KEY `crop\_ID` (`crop\_ID`),

KEY `CB\_ID` (`CB\_ID`),

CONSTRAINT `deals\_with\_ibfk\_1` FOREIGN KEY (`F\_ID`) REFERENCES `farmer` (`F\_ID`),

CONSTRAINT `deals\_with\_ibfk\_2` FOREIGN KEY (`crop\_ID`) REFERENCES `crop\_info` (`crop\_ID`),

CONSTRAINT `deals\_with\_ibfk\_3` FOREIGN KEY (`CB\_ID`) REFERENCES `crop\_buyer` (`CB\_ID`)

);

🡪Create Table command for Table named ‘fertilizer’

CREATE TABLE `fertilizer` (

`Fertilizer\_ID` varchar(10) NOT NULL,

`Fertilier\_name` varchar(20) NOT NULL,

`Fertilizer\_use` text,

PRIMARY KEY (`Fertilizer\_ID`)

);

🡪Create Table command for Table named ‘fertilizer\_availability’

CREATE TABLE `fertilizer\_availability` (

`Fd\_ID` varchar(10) NOT NULL,

`Fertilizer\_ID` varchar(10) NOT NULL,

`Price` float NOT NULL,

`Available\_stock` float NOT NULL,

PRIMARY KEY (`Fd\_ID`,`Fertilizer\_ID`),

KEY `Fertilizer\_ID` (`Fertilizer\_ID`),

CONSTRAINT `fertilizer\_availability\_ibfk\_1` FOREIGN KEY (`Fd\_ID`) REFERENCES `fertilizer\_dealer` (`Fd\_ID`),

CONSTRAINT `fertilizer\_availability\_ibfk\_2` FOREIGN KEY (`Fertilizer\_ID`) REFERENCES `fertilizer` (`Fertilizer\_ID`)

);

🡪Create Table command for Table named ‘fertilizer\_deal’

CREATE TABLE `fertilizer\_deal` (

`F\_ID` varchar(10) NOT NULL,

`Fd\_ID` varchar(10) NOT NULL,

`Quantity\_of\_Fertilizer` float NOT NULL,

`Amount\_paid` int NOT NULL,

`Fertilizer\_ID` varchar(10) NOT NULL,

`Payment\_type` varchar(7) NOT NULL,

`Deal\_time` datetime NOT NULL,

PRIMARY KEY (`F\_ID`,`Fd\_ID`,`Fertilizer\_ID`,`Deal\_time`),

KEY `Fertilizer\_ID` (`Fertilizer\_ID`),

KEY `Fd\_ID` (`Fd\_ID`),

CONSTRAINT `fertilizer\_deal\_ibfk\_1` FOREIGN KEY (`Fertilizer\_ID`) REFERENCES `fertilizer` (`Fertilizer\_ID`),

CONSTRAINT `fertilizer\_deal\_ibfk\_2` FOREIGN KEY (`F\_ID`) REFERENCES `farmer` (`F\_ID`),

CONSTRAINT `fertilizer\_deal\_ibfk\_3` FOREIGN KEY (`Fd\_ID`) REFERENCES `fertilizer\_dealer` (`Fd\_ID`)

);

🡪Create Table command for Table named ‘fertilizer\_dealer’

CREATE TABLE `fertilizer\_dealer` (

`Fd\_ID` varchar(10) NOT NULL,

`Adhaar\_No` blob NOT NULL,

`First\_name` varchar(30) NOT NULL,

`Last\_name` varchar(30) NOT NULL,

`State` varchar(25) NOT NULL,

`District` varchar(25) NOT NULL,

`Area\_Name` text NOT NULL,

`Pin\_code` int NOT NULL,

`Yearly\_Income` float NOT NULL,

`Lincence\_of\_shop` blob NOT NULL,

`Contact\_No` varchar(13) NOT NULL,

PRIMARY KEY (`Fd\_ID`)

);

🡪Create Table command for Table named ‘irrigation\_system’

CREATE TABLE `irrigation\_system` (

`temperature` float NOT NULL,

`humidity` float NOT NULL,

`methane\_amount` float NOT NULL,

`Timer` int NOT NULL,

`Farm\_ID` varchar(10) NOT NULL,

PRIMARY KEY (`Farm\_ID`),

CONSTRAINT `irrigation\_system\_ibfk\_1` FOREIGN KEY (`Farm\_ID`) REFERENCES `farm` (`Farm\_ID`)

);

🡪Create Table command for Table named ‘lab\_owner’

CREATE TABLE `lab\_owner` (

`Lab\_ID` varchar(10) NOT NULL,

`First\_name` varchar(30) NOT NULL,

`Last\_name` varchar(30) NOT NULL,

`Election\_card` blob NOT NULL,

`Adhaar\_card` blob NOT NULL,

`Contact\_no` int NOT NULL,

PRIMARY KEY (`Lab\_ID`),

CONSTRAINT `lab\_owner\_ibfk\_1` FOREIGN KEY (`Lab\_ID`) REFERENCES `soil\_analytical\_lab` (`Lab\_ID`)

);

🡪Create Table command for Table named ‘provides\_soil\_analysis’

CREATE TABLE `provides\_soil\_analysis` (

`Test\_ID` varchar(10) NOT NULL,

`Report\_details` blob NOT NULL,

`payment\_type` varchar(7) NOT NULL,

`amount\_paid` int NOT NULL,

`sample\_given\_date` date NOT NULL,

`Report\_recieved\_date` date NOT NULL,

`date\_of\_payment` date NOT NULL,

`Lab\_ID` varchar(10) NOT NULL,

`F\_ID` varchar(10) NOT NULL,

PRIMARY KEY (`Lab\_ID`,`F\_ID`,`Test\_ID`,`sample\_given\_date`),

KEY `Test\_ID` (`Test\_ID`),

KEY `F\_ID` (`F\_ID`),

CONSTRAINT `provides\_soil\_analysis\_ibfk\_1` FOREIGN KEY (`Lab\_ID`) REFERENCES `soil\_analytical\_lab` (`Lab\_ID`),

CONSTRAINT `provides\_soil\_analysis\_ibfk\_2` FOREIGN KEY (`Test\_ID`) REFERENCES `test` (`Test\_ID`),

CONSTRAINT `provides\_soil\_analysis\_ibfk\_3` FOREIGN KEY (`F\_ID`) REFERENCES `farmer` (`F\_ID`)

);

🡪Create Table command for Table named ‘soil\_analytical\_lab’

CREATE TABLE `soil\_analytical\_lab` (

`Lab\_ID` varchar(10) NOT NULL,

`Password` varchar(15) NOT NULL,

`Lab\_Name` varchar(20) NOT NULL,

`Contact\_NO` varchar(13) NOT NULL,

`Lab\_Licence` blob NOT NULL,

`state` varchar(25) NOT NULL,

`district` varchar(25) NOT NULL,

`Area\_Name` text NOT NULL,

`Pin\_code` int NOT NULL,

`opening\_time` time NOT NULL,

`closing\_time` time NOT NULL,

PRIMARY KEY (`Lab\_ID`),

CONSTRAINT `soil\_analytical\_lab\_chk\_1` CHECK ((length(`Password`) > 6))

);

🡪Create Table command for Table named ‘test’

CREATE TABLE `test` (

`Test\_name` varchar(20) NOT NULL,

`Test\_ID` varchar(10) NOT NULL,

`Test\_details` blob NOT NULL,

`Price` int DEFAULT NULL,

PRIMARY KEY (`Test\_ID`)

);

🡪Create Table command for Table named ‘test\_info’

CREATE TABLE `test\_info` (

`Lab\_ID` varchar(10) NOT NULL,

`Test\_ID` varchar(10) NOT NULL,

`Test\_price` float NOT NULL,

`Time\_to\_complete\_test` int NOT NULL,

PRIMARY KEY (`Lab\_ID`,`Test\_ID`),

KEY `Test\_ID` (`Test\_ID`),

CONSTRAINT `test\_info\_ibfk\_1` FOREIGN KEY (`Lab\_ID`) REFERENCES `soil\_analytical\_lab` (`Lab\_ID`),

CONSTRAINT `test\_info\_ibfk\_2` FOREIGN KEY (`Test\_ID`) REFERENCES `test` (`Test\_ID`)

);

🡪Create Table command for Table named ‘transportation\_provider’

CREATE TABLE `transportation\_provider` (

`First\_name` varchar(30) NOT NULL,

`Last\_name` varchar(30) NOT NULL,

`TP\_ID` varchar(10) NOT NULL,

`Registration\_date` date NOT NULL,

`Ratings` decimal(2,1) NOT NULL,

`Availability` varchar(11) NOT NULL,

`location\_latitude` decimal(9,7) NOT NULL,

`location\_longitude` decimal(9,7) NOT NULL,

PRIMARY KEY (`TP\_ID`)

);

🡪Create Table command for Table named ‘transportation\_vehicle’

CREATE TABLE `transportation\_vehicle` (

`TP\_ID` varchar(10) NOT NULL,

`Rc\_book\_number` varchar(10) NOT NULL,

`Vehicle\_number` varchar(10) NOT NULL,

PRIMARY KEY (`Vehicle\_number`),

KEY `TP\_ID` (`TP\_ID`),

CONSTRAINT `transportation\_vehicle\_ibfk\_1` FOREIGN KEY (`TP\_ID`) REFERENCES `transportation\_provider` (`TP\_ID`)

);

