SYNERGY

DATABASE MANAGEMENT SYSTEM PROJECT REPORT

By

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PROBLEM STATEMENT :

The primary goal of this project is to create a centralized and robust database management system to support and enhance the agricultural sector in India. The system will serve as a valuable resource for both government agencies and farmers, enabling efficient and data-driven decision-making. It aims to facilitate the management of various aspects of agriculture, from seed distribution and crop information to expert guidance and resource allocation.

Components of the Database:

Farmers Information:

- Store detailed information about individual farmers, including their personal details, contact information, land holdings, and farming practices.
- Track the history of crops grown, yields, and past agricultural interventions for each farmer.

Agro-Stores Data :

- Maintain records of agro-stores across the country, including their location, contact details, and inventory.
- Monitor the availability of agricultural supplies, seeds, fertilizers, pesticides at these stores.

Inventory Management:

- Keep track of agricultural inventory in agro-stores to ensure adequate supply of seeds, fertilizers, pesticides, and livestock resources.

Seeds & Crops Information:

- Record data on various crop types, planting and harvest seasons, recommended practices, and expert advice.
- Offer farmers information on suitable crops for their regions and the best practices for crop management.
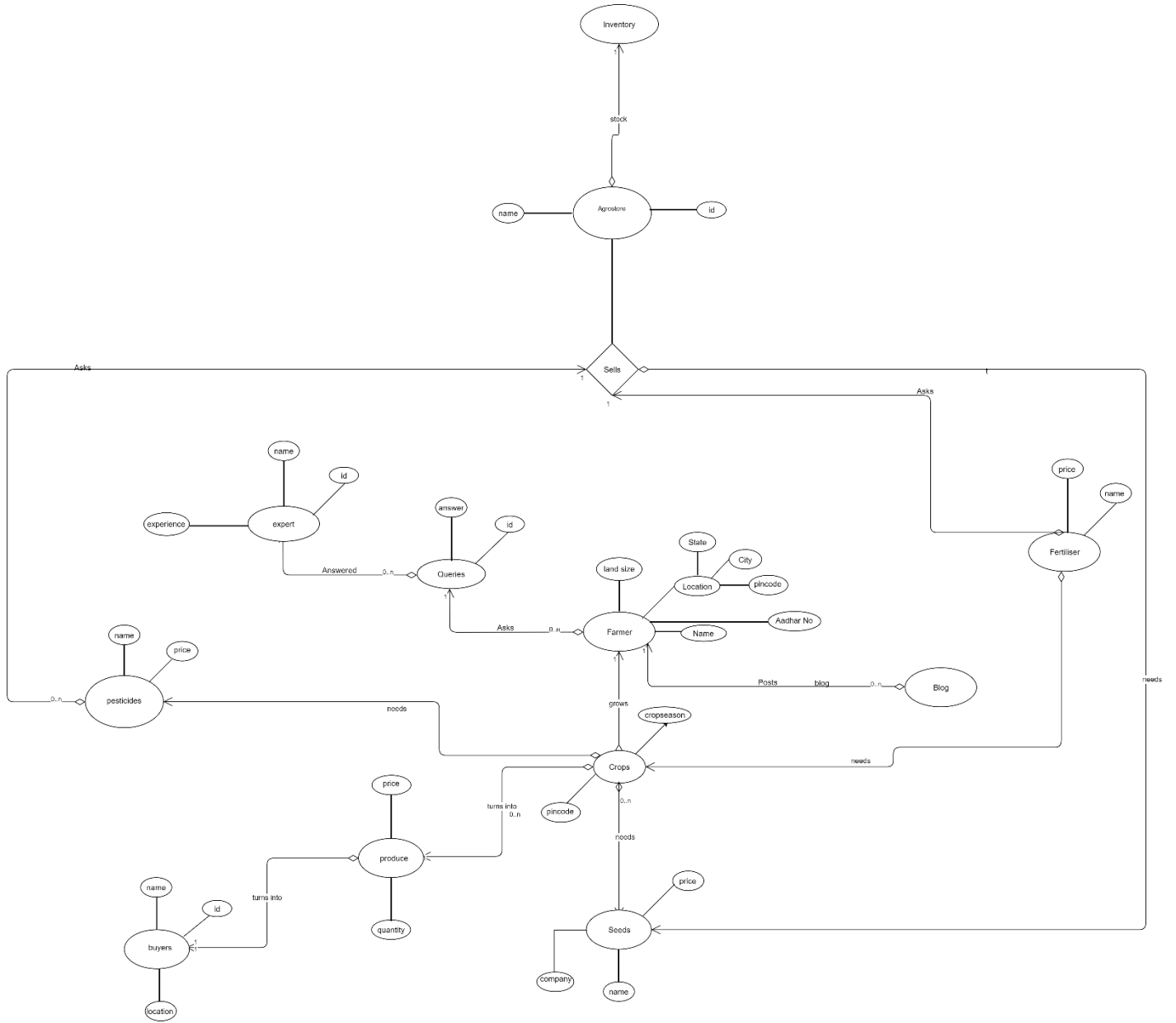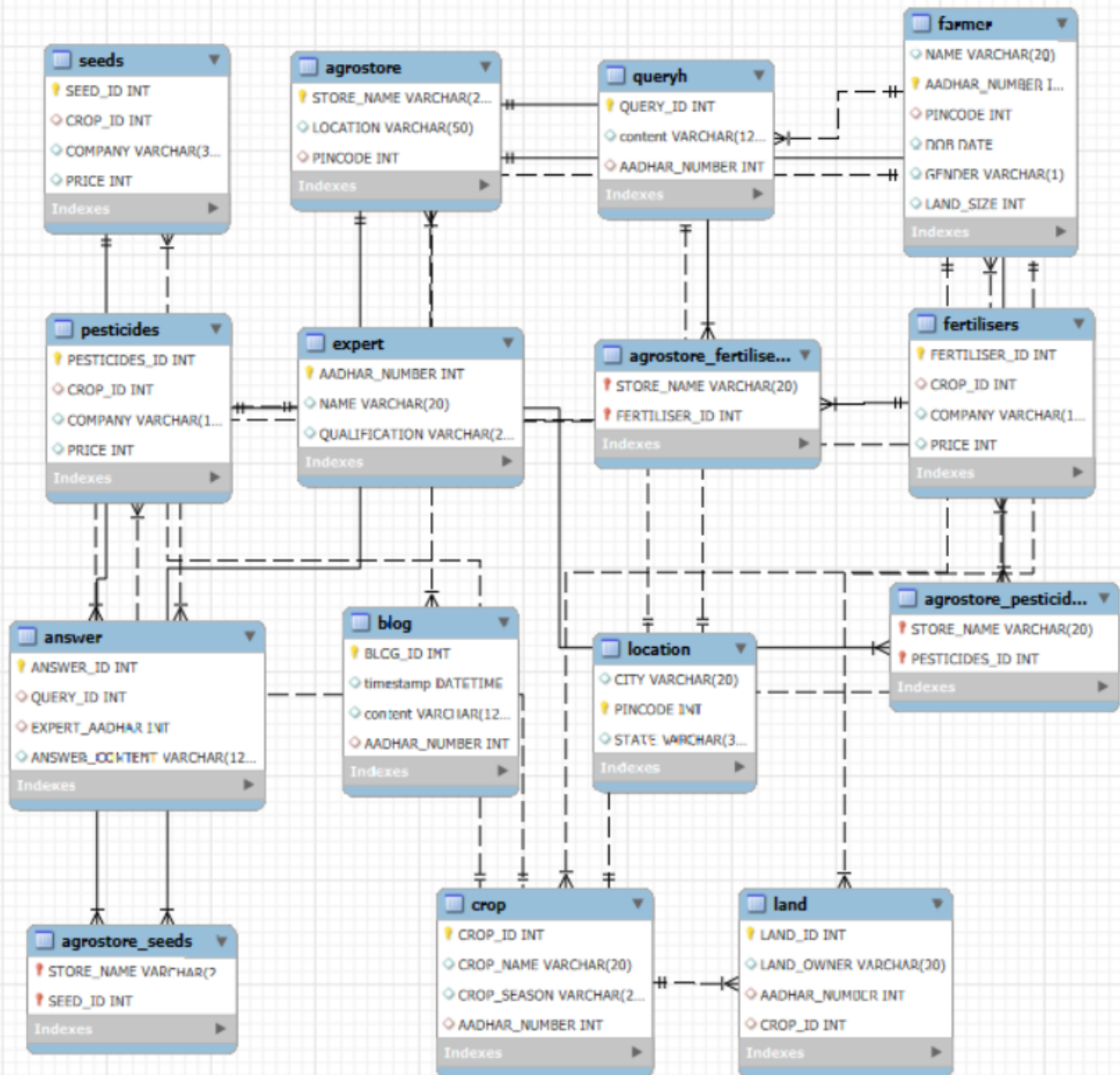
Expert Database:

- Create a database of agricultural experts, including their areas of specialization, contact information.
- Allow farmers to connect with experts for guidance and advice on crop management, livestock care, and agricultural best practices.

Data Accessibility :

- Government agencies, including agricultural departments will have access to the system to plan and execute agricultural initiatives, vaccination campaigns, and resource allocation.
- farmers can access the system through user-friendly interfaces or mobile apps to receive information about best practices, expert advice, and access to necessary resources.

ER DIAGRAM:-

seeds
- SEED_ID INT
- CROP_ID INT
- COMPANY VARCHAR(3...
- PRICE INT
- Indexes

agrostore
- STORE_NAME VARCHAR(2...
- LOCATION VARCHAR(50)
- PINCODE INT
- Indexes

queryh
- QUERY_ID INT
- content VARCHAR(12...
- AADHAR_NUMBER INT
- Indexes

farmer
- NAME VARCHAR(20)
- AADHAR_NUMBER I...
- PINCODE INT
- DOB DATE
- GENDER VARCHAR(1)
- LAND_SIZE INT
- Indexes

pesticides
- PESTICIDES_ID INT
- CROP_ID INT
- COMPANY VARCHAR(1...
- PRICE INT
- Indexes

expert
- AADHAR_NUMBER INT
- NAME VARCHAR(20)
- QUALIFICATION VARCHAR(2...
- Indexes

agrostore_fertilise...
- STORE_NAME VARCHAR(20)
- FERTILISER_ID INT
- Indexes

fertilisers
- FERTILISER_ID INT
- CROP_ID INT
- COMPANY VARCHAR(1...
- PRICE INT
- Indexes

answer
- ANSWER_ID INT
- QUERY_ID INT
- EXPERT_AADHAR INT
- ANSWER_CONTENT VARCHAR(12...
- Indexes

blog
- BLOG_ID INT
- timestamp DATETIME
- content VARCHAR(12...
- AADHAR_NUMBER INT
- Indexes

location
- CITY VARCHAR(20)
- PINCODE INT
- STATE VARCHAR(3...
- Indexes

agrostore_pesticid...
- STORE_NAME VARCHAR(20)
- PESTICIDES_ID INT
- Indexes

agrostore_seeds
- STORE_NAME VARCHAR(2...
- SEED_ID INT
- Indexes

crop
- CROP_ID INT
- CROP_NAME VARCHAR(20)
- CROP_SEASON VARCHAR(2...
- AADHAR_NUMBER INT
- Indexes

land
- LAND_ID INT
- LAND_OWNER VARCHAR(20)
- AADHAR_NUMBER INT
- CROP_ID INT
- Indexes

CREATION AND INSERTION OF TABLES:

1) Farmer's Table

```sql
CREATE TABLE FARMER(
NAME VARCHAR(20),
AADHAR_NUMBER INT PRIMARY KEY,
PINCODE INT,
DOB DATE,
GENDER VARCHAR(1),
LAND_SIZE INT,
FOREIGN KEY (PINCODE) REFERENCES LOCATION(PINCODE)
);
```

```sql
INSERT INTO FARMER VALUES( 'Mahesh',1,362001,'2001-02-17','M',2);
INSERT INTO FARMER VALUES( 'Ramesh',2,380001,'1990-02-17','M',4);
INSERT INTO FARMER VALUES( 'Suresh',3,226001,'2000-02-17','M',4);
INSERT INTO FARMER VALUES( 'Yogesh',4,506002,'1990-02-17','M',2);
INSERT INTO FARMER VALUES( 'Jayesh',5,360001,'1995-02-17','M',6);
INSERT INTO FARMER VALUES( 'Aadhesh',6,324006,'2001-02-17','M',5);
INSERT INTO FARMER VALUES( 'Amrita',7,302003,'1999-02-17','F',7);
INSERT INTO FARMER VALUES( 'Shivani',8,110001,'1970-02-17','F',23);
INSERT INTO FARMER VALUES( 'Shivansh',9,410206,'1989-02-17','M',13);
INSERT INTO FARMER VALUES( 'Alexi',10,500005,'2001-02-17','F',46);
INSERT INTO FARMER VALUES( 'Pooja',11,560002,'2004-02-17','F',4);
INSERT INTO FARMER VALUES( 'Aadhesh',12,226001,'1998-02-17','M',23);
INSERT INTO FARMER VALUES( 'Rakesh',13,410206,'1991-02-17','M',35);
INSERT INTO FARMER VALUES( 'Himesh',14,360001,'1997-02-17','M',21);
INSERT INTO FARMER VALUES( 'Santosh',15,226001,'1997-02-17','M',2);
INSERT INTO FARMER VALUES( 'Vishwas',16,226001,'1997-02-17','M',5);
INSERT INTO FARMER VALUES( 'Ayush',17,410206,'1997-02-17','M',7);
INSERT INTO FARMER VALUES( 'Seema',18,360001,'1997-02-17','F',6);
INSERT INTO FARMER VALUES( 'Harish',19,506002,'1996-02-17','M',5);
INSERT INTO FARMER VALUES( 'Mahendra',20,380001,'1998-02-17','M',8);
INSERT INTO FARMER VALUES( 'Hiamshu',21,360001,'2002-02-17','M',5);
INSERT INTO FARMER VALUES( 'Govind',22,380001,'2001-02-17','M',2);
INSERT INTO FARMER VALUES( 'Faran',23,506002,'2001-02-17','M',2);
```

NAME varchar(20)	AADHAR_NUMBER int	PINCODI int	DOB date	GENDER varchar(1)	LAND_SIZE int
Filter	Filter	Filter	Filter	Filter	Filter
> 1 Mahesh	1	362001	2001-02-17	M	2
> 2 Ramesh	2	380001	1990-02-17	M	4
> 3 Suresh	3	226001	2000-02-17	M	4
> 4 Yogesh	4	506002	1990-02-17	M	2
> 5 Jayesh	5	360001	1995-02-17	M	6
> 6 Aadhesh	6	324006	2001-02-17	M	5
> 7 Amrita	7	302003	1999-02-17	F	7
> 8 Shivani	8	110001	1970-02-17	F	23
> 9 Shivansh	9	410206	1989-02-17	M	13
> 10 Alexi	10	500005	2001-02-17	F	46
> 11 Pooja	11	560002	2004-02-17	F	4
> 12 Aadhesh	12	226001	1998-02-17	M	23
> 13 Rakesh	13	410206	1991-02-17	M	35
> 14 Himesh	14	360001	1997-02-17	M	21

2) LOCATION TABLE

```
CREATE TABLE LOCATION(
  CITY VARCHAR(20),
  PINCODE INT PRIMARY KEY,
  STATE VARCHAR(30)
);
```

```
INSERT INTO LOCATION VALUES( 'Junagadh',362001,'Gujarat');
INSERT INTO LOCATION VALUES( 'Ahmedabad',380001,'Gujarat');
INSERT INTO LOCATION VALUES( 'Lucknow',226001,'UP');
INSERT INTO LOCATION VALUES( 'Warangal',506002,'Telangana');
INSERT INTO LOCATION VALUES( 'Rajkot',360001,'Gujarat');
INSERT INTO LOCATION VALUES( 'Kota',324006,'Rajasthan');
INSERT INTO LOCATION VALUES( 'Jaipur',302003,'Rajasthan');
INSERT INTO LOCATION VALUES( 'Delhi',110001,'Delhi');
INSERT INTO LOCATION VALUES( 'NewMumbai',410206,'Maharashtra');
INSERT INTO LOCATION VALUES( 'Hyderabad',500005,'Telangana');
INSERT INTO LOCATION VALUES( 'Bangalore',560002,'Karnataka');
INSERT INTO LOCATION VALUES( 'Chennai',600002,'Tamilnadu');
INSERT INTO LOCATION VALUES( 'Jammu',180005,'JandK');
INSERT INTO LOCATION VALUES( 'Patna',800001,'Bihar');
INSERT INTO LOCATION VALUES( 'Goa',403110,'Goa');
INSERT INTO LOCATION VALUES( 'Rourkela',769001,'Odisha');
INSERT INTO LOCATION VALUES( 'Ranchi',834002,'Jharkhand');
```

```
INSERT INTO LOCATION VALUES( 'Shimla',171003,'HimachalPradesh');
INSERT INTO LOCATION VALUES( 'Jhamshedpur',831001,'Jharkhand');
INSERT INTO LOCATION VALUES( 'Agra',282003,'UP');
INSERT INTO LOCATION VALUES( 'Bhopal',462001,'MP');
```

		CITY varchar(20)	* PINCODE int	STATE varchar(30)
		Filter	Filter	Filter
	> 1	Delhi	110001	Delhi
	> 2	Shimla	171003	HimachalPradesh
	> 3	Jammu	180005	JandK
	> 4	Lucknow	226001	UP
	> 5	Agra	282003	UP
	> 6	Jaipur	302003	Rajasthan
	> 7	Kota	324006	Rajasthan
	> 8	Rajkot	360001	Gujarat
	> 9	Junagadh	362001	Gujarat
	> 10	Ahmedabad	380001	Gujarat
	> 11	Goa	403110	Goa
	> 12	NewMumbai	410206	Maharashtra
	> 13	Bhopal	462001	MP

3) CROP TABLE

```
4) CREATE TABLE CROP (
5)     CROP_ID INT PRIMARY KEY,
6)     CROP_NAME VARCHAR(20),
7)     CROP_SEASON VARCHAR(20),
8)     AADHAR_NUMBER INT,
9)     FOREIGN KEY (AADHAR_NUMBER) REFERENCES FARMER(AADHAR_NUMBER)
10)     );
```

```
INSERT INTO CROP VALUES (1, 'PADDY', 'KHARIF', 1);
INSERT INTO CROP VALUES (2, 'MAIZE', 'KHARIF', 2);
INSERT INTO CROP VALUES (3, 'SUGAR_CANE', 'KHARIF', 3);
INSERT INTO CROP VALUES (4, 'Sorghum', 'KHARIF', 4);
INSERT INTO CROP VALUES (5, 'Bajra', 'KHARIF', 5);
```

		* CROP_ID int	CROP_NAME varchar(20)	CROP_SEASON varchar(20)	AADHAR_NUMBE int
		Filter	Filter	Filter	Filter
	> 1	1	PADDY	KHARIF	1
	> 2	2	MAIZE	KHARIF	2
	> 3	3	SUGAR_CANE	KHARIF	3
	> 4	4	Sorghum	KHARIF	4
	> 5	5	Bajra	KHARIF	5

5)LAND TABLE:

```
CREATE TABLE LAND (
    LAND_ID INT PRIMARY KEY,
    LAND_OWNER VARCHAR(20),
    AADHAR_NUMBER INT,
    CROP_ID INT,
    FOREIGN KEY (AADHAR_NUMBER) REFERENCES FARMER(AADHAR_NUMBER),
    FOREIGN KEY (CROP_ID) REFERENCES CROP(CROP_ID)
);
```

```
INSERT INTO LAND VALUES (1, 'Mahesh', 1, 1);
INSERT INTO LAND VALUES (2, 'Ramesh', 2, 2);
INSERT INTO LAND VALUES (3, 'Suresh', 3, 3);
INSERT INTO LAND VALUES (4, 'Yogesh', 4, 4);
INSERT INTO LAND VALUES (5, 'Jayesh', 5, 5);
```

		* LAND_ID int	LAND_OWNER varchar(20)	AADHAR_NUMBE int	CROP_ID int
	Q	Filter	Filter	Filter	Filter
	>1	1	Mahesh	1	1
	>2	2	Ramesh	2	2
	>3	3	Suresh	3	3
	>4	4	Yogesh	4	4
	>5	5	Jayesh	5	5

4)SEEDS TABLE:

```
CREATE TABLE SEEDS (
    SEED_ID INT PRIMARY KEY,
    CROP_ID INT,
    COMPANY VARCHAR(30),
    PRICE INT,
    FOREIGN KEY (CROP_ID) REFERENCES CROP(CROP_ID));
INSERT INTO SEEDS VALUES (1, 1, '27P31 PADDY VARIETY', 1040);
INSERT INTO SEEDS VALUES (2, 2, 'PIONEER AGRO MAIZE SEED', 940);
INSERT INTO SEEDS VALUES (3, 4, 'UJRA_OATS', 90);
INSERT INTO SEEDS VALUES (4, 4, 'HARE_BARLEY', 190);
INSERT INTO SEEDS VALUES (5, 5, 'SYNGENTA WHEAT', 80);
```

		* SEED_ID int	CROP_ID int	COMPANY varchar(30)	PRICE int
	Q	Filter	Filter	Filter	Filter
	>1	1	1	27P31 PADDY VARIETY	1040
	>2	2	2	PIONEER AGRO MAIZE SEED	940
	>3	3	4	UJRA_OATS	90
	>4	4	4	HARE_BARLEY	190
	>5	5	5	SYNGENTA WHEAT	80

11) FERTILISERS TABLE:

```sql
CREATE TABLE FERTILISERS (
    FERTILISER_ID INT PRIMARY KEY,
    CROP_ID INT,
    COMPANY VARCHAR(15),
    PRICE INT,
    FOREIGN KEY (CROP_ID) REFERENCES CROP(CROP_ID)
);
```

```sql
INSERT INTO FERTILISERS VALUES (1, 1, 'IFFCO', 200);
INSERT INTO FERTILISERS VALUES (2, 2, 'YARA', 300);
INSERT INTO FERTILISERS VALUES (3, 3, 'KRIBHCO', 150);
INSERT INTO FERTILISERS VALUES (4, 4, 'COROMANDEL', 180);
INSERT INTO FERTILISERS VALUES (5, 5, 'RCF', 220);
```

	FERTILISER_ID int	CROP_ID int	COMPANY varchar(15)	PRICE int
	Filter	Filter	Filter	Filter
>1	1	1	IFFCO	200
>2	2	2	YARA	300
>3	3	3	KRIBHCO	150
>4	4	4	COROMANDEL	180
>5	5	5	RCF	220

6) PESTICIDES TABLE

```sql
CREATE TABLE PESTICIDES (
    PESTICIDES_ID INT PRIMARY KEY,
    CROP_ID INT,
    COMPANY VARCHAR(15),
    PRICE INT,
    FOREIGN KEY (CROP_ID) REFERENCES CROP(CROP_ID)
);
```

```sql
INSERT INTO PESTICIDES VALUES (1, 1, 'BAYER', 500);
INSERT INTO PESTICIDES VALUES (2, 2, 'SYNGENTA', 600);
INSERT INTO PESTICIDES VALUES (3, 3, 'UPL', 550);
```

```
INSERT INTO PESTICIDES VALUES (4, 4, 'ADAMA', 580);
INSERT INTO PESTICIDES VALUES (5, 5, 'BASF', 620);
```

		* PESTICIDES_ID int	CROP_ID int	COMPANY varchar(15)	PRICE int
		Filter	Filter	Filter	Filter
	>1	1	1	BAYER	500
	>2	2	2	SYNGENTA	600
	>3	3	3	UPL	550
	>4	4	4	ADAMA	580
	>5	5	5	BASF	620

7) AGROSTORE TABLE

```
CREATE TABLE AGROSTORE (
    STORE_NAME VARCHAR(20) PRIMARY KEY,
    LOCATION VARCHAR(50)
);
INSERT INTO AGROSTORE VALUES ('AgroStore1', 'Junagadh, Gujarat');
INSERT INTO AGROSTORE VALUES ('AgroStore2', 'Ahmedabad, Gujarat');
INSERT INTO AGROSTORE VALUES ('AgroStore3', 'Lucknow, UP');
```

		* STORE_NAME varchar(20)	LOCATION varchar(50)	PINCODI int
		Filter	Filter	Filter
	>1	AgroStore1	Junagadh, Gujarat	362001
	>2	AgroStore2	Ahmedabad, Gujarat	380001
	>3	AgroStore3	Lucknow, UP	226001

8) QUERY TABLE

```
CREATE TABLE QUERYH(
  QUERY_ID INT PRIMARY KEY,
```

```
  content VARCHAR(120),
  AADHAR_NUMBER INT,
  FOREIGN KEY (AADHAR_NUMBER) REFERENCES FARMER(AADHAR_NUMBER)
);
INSERT INTO QUERYH (QUERY_ID, content, AADHAR_NUMBER) VALUES
(1, 'How to improve soil fertility?', 1),
(2, 'Best practices for pest control?', 2),
(3, 'How to manage water usage efficiently?', 3),
(4, 'What are the benefits of crop rotation?', 4),
(5, 'How to prevent crop diseases?', 5);
```

* QUERY_ID int	content varchar(120)	AADHAR_NUMBE int
Filter	Filter	Filter
> 1 1	How to improve soil fertility	1
> 2 2	Best practices for pest contr	2
> 3 3	How to manage water usag	3
> 4 4	What are the benefits of cro	4
> 5 5	How to prevent crop diseas	5

9) EXPERT TABLE

```
CREATE TABLE EXPERT(
  AADHAR_NUMBER INT PRIMARY KEY,
  NAME VARCHAR(20),
  QUALIFICATION VARCHAR(20)
);
INSERT INTO EXPERT (AADHAR_NUMBER,NAME,QUALIFICATION) VALUES
(101, 'Dr. Arjun', 'Soil Science'),
(102, 'Dr. Meera', 'Entomology'),
(103, 'Dr. Raj', 'Water Management'),
(104, 'Dr. Priya', 'Agronomy'),
(105, 'Dr. Vivek', 'Plant Pathology');
```

	Q	* AADHAR_NUMBER int ▲▼	NAME varchar(20) ▲▼	QUALIFICATION varchar(20) ▲▼
☐		Filter	Filter	Filter
☐	> 1	101	Dr. Arjun	Soil Science
☐	> 2	102	Dr. Meera	Entomology
☐	> 3	103	Dr. Raj	Water Management
☐	> 4	104	Dr. Priya	Agronomy
☐	> 5	105	Dr. Vivek	Plant Pathology

10)   ANSWERS TABLE

```sql
CREATE TABLE ANSWER(
  ANSWER_ID INT PRIMARY KEY,
  QUERY_ID INT,
  EXPERT_AADHAR INT,
  ANSWER_CONTENT VARCHAR(120),
  FOREIGN KEY (QUERY_ID) REFERENCES QUERYH(QUERY_ID),
  FOREIGN KEY (EXPERT_AADHAR) REFERENCES EXPERT(AADHAR_NUMBER)
);

INSERT INTO ANSWER (ANSWER_ID, QUERY_ID, EXPERT_AADHAR, ANSWER_CONTENT) VALUES
(1, 1, 101, 'Use organic matter and compost.'),
(2, 2, 102, 'Apply neem oil and maintain cleanliness.'),
(3, 3, 103, 'Implement drip irrigation.'),
(4, 4, 104, 'Rotate crops to different families.'),
(5, 5, 105, 'Use resistant varieties and proper spacing.');
```

	Q	* ANSWER_ID int ▲▼	QUERY_ID int ▲▼	EXPERT_AADHAR int ▲▼	ANSWER_CONTENT varchar(120) ▲▼
☐		Filter	Filter	Filter	Filter
☐	> 1	1	1	101	Use organic matter and com
☐	> 2	2	2	102	Apply neem oil and maintai
☐	> 3	3	3	103	Implement drip irrigation.
☐	> 4	4	4	104	Rotate crops to different far
☐	> 5	5	5	105	Use resistant varieties and p

FUNCTIONAL DEPENDENCIES :-

- Location 3rd Normal Form

{Pincode} -> {City}
{City} -> {State}

- Agro_center 3rd Normal Form:
    {Center_id}-> {City}
    {City}->{Pincode}

- Fertilisers 2nd Normal Form:
    {Fertiliser_id} -> {Price}
    {Fertiliser_name,company}-> {Price}

- Pesticides 2nd Normal Form:
    {Pesticide_id} -> {Price}
    {Pesticide_name,company}-> {Price}

- Seeds 2nd Normal Form:
    {Pesticide_id} -> {Price}
    {Pesticide_name,company}-> {Price}

- Farmer 2nd Normal form:
    {Aadhar_number}->{name,location,phone_number}
    {phone_number} ->{name,location}

- A farmer can grow more than one crop in his field with 1:N relationship between the two entities.

- A crop can be grown with many fertilisers , pesticides, seeds, which belong to the particular crop and of different companies there is 1:N relationship between the entities.

- A agro-store sells many types of fertiliser, seeds, pestcides (M:N) there many to many relationship between these two entities.

- A farmer asks many queries there is one is to many (1:N) relationship between these two entities.

- Any Expert can answer any query it is many to many (M:N) relationship between these two entities.

- A farmer can post many blogs it is one is to many (1:N) relationship between these two entities.

NORMALIZATION INTO HIGHER FORMS:

The three normal forms commonly referred to in database normalization are:

First Normal Form (1NF):

The first normal form requires that each column in a table contain only atomic values, meaning that each value should be indivisible. It eliminates repeating

groups and ensures that each column has a single value. In 1NF, a table should have a primary key that uniquely identifies each row.

Second Normal Form (2NF):

The second normal form builds upon the first normal form. It states that a table should meet 1NF requirements and that all non-key attributes (columns) should be fully functionally dependent on the entire primary key. In other words, if a table has a composite primary key (multiple columns), each non-key column should depend on the entire composite key, not just a part of it. If a non-key column depends on only a portion of the primary key, it should be moved to a separate table.

Third Normal Form (3NF):

The third normal form goes further by eliminating transitive dependencies. It states that a table should meet the requirements of 2NF and that no non-key attribute should depend on another non-key attribute. In simpler terms, all non-key columns should be functionally dependent only on the primary key. If a non-key column depends on another non-key column, it should be moved to a separate table.

By following the normalization process and achieving higher normal forms, databases can minimize redundancy, improve data integrity, and simplify data maintenance and updates. Our table is already in Normalized form.

SQL QUERIES:

Info of a farmer

```
select * from queryh where AADHAR_NUMBER=1;
```

	Q	* QUERY_ID int	content varchar(120)	⌕ AADHAR_NUMBE int
		Filter	Filter	Filter
	>1	1	How to improve soil fertility	1

CROPS GROWN BY A FARMER ON HIS LAND

```
select FARMER.NAME,LAND.LAND_ID AS `LAND_ID`,CROP.CROP_NAME AS CROP_NAME FROM
FARMER,LAND,CROP where FARMER.NAME=LAND.LAND_OWNER AND
CROP.AADHAR_NUMBER=FARMER.AADHAR_NUMBER
```

Q	NAME varchar	LAND_ID int	CROP_NAME varchar
	Filter	Filter	Filter
>1	Mahesh	1	PADDY
>2	Ramesh	2	MAIZE
>3	Suresh	3	SUGAR_CANE
>4	Yogesh	4	Sorghum
>5	Jayesh	5	Bajra

DETAILS OF PESTICIDES,FERTILISERS,SEED REQUIRED BY CROPS

```sql
select CROP.CROP_NAME,SEEDS.COMPANY AS SEEDS,FERTILISERS.COMPANY AS
FERTILISERS,PESTICIDES.COMPANY AS PESTICIDES FROM CROP,FERTILISERS,PESTICIDES,SEEDS
WHERE CROP.CROP_ID=FERTILISERS.FERTILISER_ID AND CROP.CROP_ID=PESTICIDES.CROP_ID AND
CROP.CROP_ID=SEEDS.CROP_ID
```

	CROP_NAME varchar	SEEDS varchar	FERTILISERS varchar	PESTICIDES varchar
	Filter	Filter	Filter	Filter
> 1	PADDY	27P31 PADDY VARIETY	IFFCO	BAYER
> 2	MAIZE	PIONEER AGRO MAIZE SEED	YARA	SYNGENTA
> 3	Sorghum	UJRA_OATS	COROMANDEL	ADAMA
> 4	Sorghum	HARE_BARLEY	COROMANDEL	ADAMA
> 5	Bajra	SYNGENTA WHEAT	RCF	BASF

TOTAL PRICE INCURED BY EACH FARMER ON PESTICIDES,FERTILISERS,SEEDS

```sql
SELECT
    CROP.CROP_NAME,
    SEEDS.COMPANY AS SEEDS,
    FERTILISERS.COMPANY AS FERTILISERS,
    PESTICIDES.COMPANY AS PESTICIDES,
    (SEEDS.PRICE + FERTILISERS.PRICE + PESTICIDES.PRICE) AS TOTAL_PRICE
FROM
    CROP
    INNER JOIN SEEDS ON CROP.CROP_ID = SEEDS.CROP_ID
    INNER JOIN FERTILISERS ON CROP.CROP_ID = FERTILISERS.CROP_ID
    INNER JOIN PESTICIDES ON CROP.CROP_ID = PESTICIDES.CROP_ID;
```

CROP_NAME varchar	SEEDS varchar	FERTILISERS varchar	PESTICIDES varchar	TOTAL_PRICE bigint
1	PADDY	27P31 PADDY VARIETY	IFFCO	BAYER	1740
2	MAIZE	PIONEER AGRO MAIZE SEEL	YARA	SYNGENTA	1840
3	Sorghum	UJRA_OATS	COROMANDEL	ADAMA	850
4	Sorghum	HARE_BARLEY	COROMANDEL	ADAMA	950
5	Bajra	SYNGENTA WHEAT	RCF	BASF	920

AGROSTORE IN NEARBY LOCATION

```
SELECT farmer.NAME,agrostore.STORE_NAME,agrostore.LOCATION FROM farmer INNER JOIN
agrostore ON  farmer.PINCODE=agrostore.PINCODE
```

NAME varchar	STORE_NAME varchar	LOCATION varchar
Filter	Filter	Filter
1	Mahesh	AgroStore1	Junagadh, Gujarat
2	Ramesh	AgroStore2	Ahmedabad, Gujarat
3	Mahendra	AgroStore2	Ahmedabad, Gujarat
4	Govind	AgroStore2	Ahmedabad, Gujarat
5	Suresh	AgroStore3	Lucknow, UP
6	Aadhesh	AgroStore3	Lucknow, UP
7	Santosh	AgroStore3	Lucknow, UP
8	Vishwas	AgroStore3	Lucknow, UP

QUERIES OF FARMERS ADDRESED BY EXPERTS

	name varchar	content varchar	ANSWER_CONTENT varchar	NAME varchar
	Filter	Filter	Filter	Filter
> 1	Mahesh	How to improve soil fertility	Use organic matter and con	Dr. Arjun
> 2	Ramesh	Best practices for pest contr	Apply neem oil and maintai	Dr. Meera
> 3	Suresh	How to manage water usag	Implement drip irrigation.	Dr. Raj
> 4	Yogesh	What are the benefits of cro	Rotate crops to different far	Dr. Priya
> 5	Jayesh	How to prevent crop diseas	Use resistant varieties and p	Dr. Vivek