
Database Management System (IT615)

CRUD Operations using GUI

for

Sustainable Agriculture Resource Management

Group Number: 02
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1. Farmer(FarmerID, Name, FarmSize, ContactInfo)

The screenshot shows a Windows application window titled "Farmer Management". On the left side, there are four input fields labeled "Farmer ID:", "Name:", "Farm Size:", and "Contact Info:". To the right of these fields is a vertical stack of four empty text boxes. Below this is a table with four columns, each containing a header label: "Farmer ID", "Name", "Farm Size", and "Contact Info". The table has two rows of data. At the bottom of the window are four buttons: "Add", "Update", "Delete", and "Load".

Farmer ID	Name	Farm Size	Contact Info

Initial stage of Farmer Management prompt

Load Operation

Farmer Management

Farmer ID:	
Name:	
Farm Size:	
Contact Info:	

Farmer ID	Name	Farm Size	Contact Info
1	Manav Singh	20.5	manav.singh@example.c...
2	Veer Sharma	61.0	veer.sharma@example.c...
3	Kumar Gupta	15.5	kumar.gupta@example.c...
4	Aamir Patel	30.0	aamir.patel@example.co...
5	Karma Verma	74.25	karma.verma@example...
6	Ronak Joshi	50.0	ronak.joshi@example.com
7	Neel Mehta	30.0	neel.mehta@example.co...
8	Raj Rao	11.0	raj.rao@example.com
9	Shiraz Desai	27.0	shiraz.desai@example.co...
10	Kaushal Reddy	80.0	kaushal.reddy@example...
11	Aarav Singh	22.5	aarav.singh@example.co...
12	Vikram Sharma	65.0	vikram.sharma@example...
13	Rahul Gupta	10.5	rahul.gupta@example.co...

Add **Update** **Delete** **Load**

Query **Query History**

```
1 select * from "G2SARM".farmer;
```

Data Output **Messages** **Notifications**

SQL

farmerid	name	farmsize	contactinfo
75	Raj Kumar	70.00	raj.kumar@example.com
76	Kunal Singh	11.25	kunal.singh@example.com
77	Ishaan Mehta	77.75	ishaan.mehta@example.com
78	Vishal Verma	26.50	vishal.verma@example.com
79	Siddhant Sharma	38.00	siddhant.sharma@example.com
80	Samir Gupta	55.75	samir.gupta@example.com
81	Parth Rao	41.50	parth.rao@example.com
82	Ritesh Reddy	68.50	ritesh.reddy@example.com
83	Shreyas Bhatia	16.75	shreyas.bhatia@example.com
84	Arnav Singh	49.25	arnav.singh@example.com
85	Nitin Gupta	33.50	nitin.gupta@example.com
86	Vikrant Reddy	58.25	vikrant.reddy@example.com
87	Suryansh Patel	24.75	suryansh.patel@example.com
88	Aakash Singh	60.50	aakash.singh@example.com
89	Bharat Kumar	14.00	bharat.kumar@example.com
90	Hitesh Reddy	48.00	hitesh.reddy@example.com
91	Vikram Verma	40.25	vikram.verma@example.com
92	Ajay Mehta	73.50	ajay.mehta@example.com
93	Rajan Singh	22.25	rajan.singh@example.com

Total rows: 93 of 93 Query complete 00:00:00.282

SELECT * FROM farmer;

Add Operation

Farmer Management

Farmer ID:	96
Name:	Jayesh Chauhan
Farm Size:	30.10
Contact Info:	jayesh@example.com

Farmer ID	Name	Farm Size	Contact Info
82	Ritesh Reddy	68.5	ritesh.reddy@example.co...
83	Shreyas Bhatia	16.75	shreyas.bhatia@example...
84	Arnav Singh	49.25	arnav.singh@example.co...
85	Nitin Gupta	33.5	nitin.gupta@example.com
86	Vikrant Reddy	58.25	vikrant.reddy@example.c...
87	Suryansh Patel	24.75	suryansh.patel@example...
88	Aakash Singh	60.5	aakash.singh@example.c...
89	Bharat Kumar	14.0	bharat.kumar@example.c...
91	Hitesh Reddy	48.0	hitesh.reddy@example.co...
92	Vikram Verma	40.25	vikram.verma@example....
93	Ajay Mehta	73.5	ajay.mehta@example.com
94	Rajan Singh	22.25	rajan.singh@example.com
96	Jayesh Chauhan	30.1	jayesh@example.com

Add **Update** **Delete** **Load**

```
INSERT INTO Farmer (FarmerID, Name, FarmSize, ContactInfo)
VALUES (96, 'Jayesh Chauhan', 30.10, 'jayesh@example.com');
```

Farmer Management

Farmer ID:	97
Name:	Sahil Shah
Farm Size:	35.15
Contact Info:	sahilshah@example.com

Farmer ID	Name	Farm Size	Contact Info
83	Shreyas Bhatia	16.75	shreyas.bhatia@example...
84	Arnav Singh	49.25	arnav.singh@example.co...
85	Nitin Gupta	33.5	nitin.gupta@example.com
86	Vikrant Reddy	58.25	vikrant.reddy@example.c...
87	Suryansh Patel	24.75	suryansh.patel@example...
88	Aakash Singh	60.5	aakash.singh@example.c...
89	Bharat Kumar	14.0	bharat.kumar@example.c...
91	Hitesh Reddy	48.0	hitesh.reddy@example.co...
92	Vikram Verma	40.25	vikram.verma@example....
93	Ajay Mehta	73.5	ajay.mehta@example.com
94	Rajan Singh	22.25	rajan.singh@example.com
96	Jayesh Chauhan	30.1	jayesh@example.com
97	Sahil Shah	35.15	sahilshah@example.com

Add **Update** **Delete** **Load**

```
INSERT INTO Farmer (FarmerID, Name, FarmSize, ContactInfo)
VALUES (97, 'Sahil Shah', 35.15, 'sahilshah@example.com');
```

Query History

```
1 select * from "G2SARM".farmer;
```

Data Output Messages Notifications

SQL

	farmerid [PK] integer	name character varying (255)	farmsize numeric (10,2)	contactinfo character varying (255)
77	77	Ishaan Mehta	77.75	ishaan.mehta@example.com
78	78	Vishal Verma	26.50	vishal.verma@example.com
79	79	Siddhant Sharma	38.00	siddhant.sharma@example.com
80	80	Samir Gupta	55.75	samir.gupta@example.com
81	81	Parth Rao	41.50	parth.rao@example.com
82	82	Ritesh Reddy	68.50	ritesh.reddy@example.com
83	83	Shreyas Bhatia	16.75	shreyas.bhatia@example.com
84	84	Arnav Singh	49.25	arnav.singh@example.com
85	85	Nitin Gupta	33.50	nitin.gupta@example.com
86	86	Vikrant Reddy	58.25	vikrant.reddy@example.com
87	87	Suryansh Patel	24.75	suryansh.patel@example.com
88	88	Aakash Singh	60.50	aakash.singh@example.com
89	89	Bharat Kumar	14.00	bharat.kumar@example.com
90	91	Hitesh Reddy	48.00	hitesh.reddy@example.com
91	92	Vikram Verma	40.25	vikram.verma@example.com
92	93	Ajay Mehta	73.50	ajay.mehta@example.com
93	94	Rajan Singh	22.25	rajan.singh@example.com
94	96	Jayesh Chauhan	30.10	jayesh@example.com
95	97	Sahil Shah	35.15	sahilshah@example.com

Total rows: 95 of 95 Query complete 00:00:00.137

Update Operation

Farmer Management

Farmer ID:	96
Name:	Meet Jha
Farm Size:	20
Contact Info:	meet@example.com

Farmer ID	Name	Farm Size	Contact Info
83	Shreyas Bhatia	16.75	shreyas.bhatia@example..
84	Arnav Singh	49.25	arnav.singh@example.co..
85	Nitin Gupta	33.5	nitin.gupta@example.com
86	Vikrant Reddy	58.25	vikrant.reddy@example.c..
87	Suryansh Patel	24.75	suryansh.patel@example..
88	Aakash Singh	60.5	aakash.singh@example.c..
89	Bharat Kumar	14.0	bharat.kumar@example.c..
91	Hitesh Reddy	48.0	hitesh.reddy@example.co..
92	Vikram Verma	40.25	vikram.verma@example....
93	Ajay Mehta	73.5	ajay.mehta@example.com
94	Rajan Singh	22.25	rajan.singh@example.com
97	Sahil Shah	35.15	sahilshah@example.com
96	Meet Jha	20.0	meet@example.com

Add Update Delete Load

UPDATE Farmer SET Name = 'Meet Jha', FarmSize = 20.0, ContactInfo = 'meet@example.com' WHERE FarmerID = 96;

Farmer Management

Farmer ID:	97
Name:	Malhar Oza
Farm Size:	25
Contact Info:	malhar@example.com

Farmer ID	Name	Farm Size	Contact Info
83	Shreyas Bhatia	16.75	shreyas.bhatia@example..
84	Arnav Singh	49.25	arnav.singh@example.co..
85	Nitin Gupta	33.5	nitin.gupta@example.com
86	Vikrant Reddy	58.25	vikrant.reddy@example.c..
87	Suryansh Patel	24.75	suryansh.patel@example..
88	Aakash Singh	60.5	aakash.singh@example.c..
89	Bharat Kumar	14.0	bharat.kumar@example.c..
91	Hitesh Reddy	48.0	hitesh.reddy@example.co..
92	Vikram Verma	40.25	vikram.verma@example....
93	Ajay Mehta	73.5	ajay.mehta@example.com
94	Rajan Singh	22.25	rajan.singh@example.com
96	Meet Jha	20.0	meet@example.com
97	Malhar Oza	25.0	malhar@example.com

Add Update Delete Load

UPDATE Farmer SET Name = 'Malhar Oza', FarmSize = 25.0, ContactInfo = 'malhar@example.com' WHERE FarmerID = 97;

The screenshot shows a database interface with a toolbar at the top containing various icons for file operations, search, and navigation. Below the toolbar, the title bar says "Query History". The main area displays a SQL query and its results.

Query History

```
1 select * from "G2SARM".farmer;
```

Data Output Messages Notifications

SQL

	farmerid [PK] integer	name character varying (255)	farmsize numeric (10,2)	contactinfo character varying (255)
77	77	Ishaan Mehta	77.75	ishaan.mehta@example.com
78	78	Vishal Verma	26.50	vishal.verma@example.com
79	79	Siddhant Sharma	38.00	siddhant.sharma@example.com
80	80	Samir Gupta	55.75	samir.gupta@example.com
81	81	Parth Rao	41.50	parth.rao@example.com
82	82	Ritesh Reddy	68.50	ritesh.reddy@example.com
83	83	Shreyas Bhatia	16.75	shreyas.bhatia@example.com
84	84	Arnav Singh	49.25	arnav.singh@example.com
85	85	Nitin Gupta	33.50	nitin.gupta@example.com
86	86	Vikrant Reddy	58.25	vikrant.reddy@example.com
87	87	Suryansh Patel	24.75	suryansh.patel@example.com
88	88	Aakash Singh	60.50	aakash.singh@example.com
89	89	Bharat Kumar	14.00	bharat.kumar@example.com
90	91	Hitesh Reddy	48.00	hitesh.reddy@example.com
91	92	Vikram Verma	40.25	vikram.verma@example.com
92	93	Ajay Mehta	73.50	ajay.mehta@example.com
93	94	Rajan Singh	22.25	rajan.singh@example.com
94	96	Meet Jha	20.00	meet@example.com
95	97	Malhar Oza	25.00	malhar@example.com

Total rows: 95 of 95 Query complete 00:00:00.128

Delete Operation

Farmer Management

Farmer ID:	97
Name:	
Farm Size:	
Contact Info:	

Farmer ID	Name	Farm Size	Contact Info
82	Ritesh Reddy	68.5	ritesh.reddy@example.co..
83	Shreyas Bhatia	16.75	shreyas.bhatia@example..
84	Arnav Singh	49.25	arnav.singh@example.co..
85	Nitin Gupta	33.5	nitin.gupta@example.com
86	Vikrant Reddy	58.25	vikrant.reddy@example.c..
87	Suryansh Patel	24.75	suryansh.patel@example..
88	Aakash Singh	60.5	aakash.singh@example.c..
89	Bharat Kumar	14.0	bharat.kumar@example.c..
91	Hitesh Reddy	48.0	hitesh.reddy@example.co..
92	Vikram Verma	40.25	vikram.verma@example....
93	Ajay Mehta	73.5	ajay.mehta@example.com
94	Rajan Singh	22.25	rajan.singh@example.com
96	Meet Jha	20.0	meet@example.com

Add Update Delete Load

DELETE FROM Farmer WHERE FarmerID = 97;

Farmer Management

Farmer ID:	96
Name:	
Farm Size:	
Contact Info:	

Farmer ID	Name	Farm Size	Contact Info
81	Parth Rao	41.5	parth.rao@example.com
82	Ritesh Reddy	68.5	ritesh.reddy@example.co..
83	Shreyas Bhatia	16.75	shreyas.bhatia@example..
84	Arnav Singh	49.25	arnav.singh@example.co..
85	Nitin Gupta	33.5	nitin.gupta@example.com
86	Vikrant Reddy	58.25	vikrant.reddy@example.c..
87	Suryansh Patel	24.75	suryansh.patel@example..
88	Aakash Singh	60.5	aakash.singh@example.c..
89	Bharat Kumar	14.0	bharat.kumar@example.c..
91	Hitesh Reddy	48.0	hitesh.reddy@example.co..
92	Vikram Verma	40.25	vikram.verma@example....
93	Ajay Mehta	73.5	ajay.mehta@example.com
94	Rajan Singh	22.25	rajan.singh@example.com

Add Update Delete Load

DELETE FROM Farmer WHERE FarmerID = 96;

No limit

Query History

```
1 select * from "G2SARM".farmer;
```

Data Output Messages Notifications

	farmerid [PK] integer	name character varying (255)	farmsize numeric (10,2)	contactinfo character varying (255)
75	75	Raj Kumar	70.00	raj.kumar@example.com
76	76	Kunal Singh	11.25	kunal.singh@example.com
77	77	Ishaan Mehta	77.75	ishaan.mehta@example.com
78	78	Vishal Verma	26.50	vishal.verma@example.com
79	79	Siddhant Sharma	38.00	siddhant.sharma@example.com
80	80	Samir Gupta	55.75	samir.gupta@example.com
81	81	Parth Rao	41.50	parth.rao@example.com
82	82	Ritesh Reddy	68.50	ritesh.reddy@example.com
83	83	Shreyas Bhatia	16.75	shreyas.bhatia@example.com
84	84	Arnav Singh	49.25	arnav.singh@example.com
85	85	Nitin Gupta	33.50	nitin.gupta@example.com
86	86	Vikrant Reddy	58.25	vikrant.reddy@example.com
87	87	Suryansh Patel	24.75	suryansh.patel@example.com
88	88	Aakash Singh	60.50	aakash.singh@example.com
89	89	Bharat Kumar	14.00	bharat.kumar@example.com
90	91	Hitesh Reddy	48.00	hitesh.reddy@example.com
91	92	Vikram Verma	40.25	vikram.verma@example.com
92	93	Ajay Mehta	73.50	ajay.mehta@example.com
93	94	Rajan Singh	22.25	rajan.singh@example.com

Total rows: 93 of 93 Query complete 00:00:00.069

2. Crop(CropID, Name, GrowthPeriod, Yield,TypeID)

The screenshot shows a Windows application window titled "Crop Management". On the left, there are five input fields labeled "Crop ID:", "Name:", "Growth Period:", "Yield:", and "TypeID:". To the right of each label is a corresponding empty text input field. Below these fields is a horizontal table with five columns, each containing a header label: "Crop ID", "Name", "Growth Period", "Yield", and "TypeID". At the bottom of the window are four buttons: "Add", "Update", "Delete", and "Load".

Initial stage of Crop Management prompt

Load Operation

Crop Management

Crop ID:	Name	Growth Period	Yield	Type ID
78	Cardamom	180	2.5	9
79	Sage	90	0.8	5
80	Lavender	120	0.5	5
81	Nasturtium	60	0.3	5
82	Wild Garlic	90	0.5	5
83	Chickweed	50	0.3	5
84	Seaweed	30	0.6	13
85	Nettle	120	0.4	5
86	Taro	150	3.0	7
87	Cassava	180	4.0	7
88	Fenugreek	60	1.0	5
89	Fava Bean	90	1.2	2
90	Zea Mays	90	4.0	1

Add Update Delete Load

Query Query History

1 `select * from "G2SARM".Crop;`

Data Output Messages Notifications

SQL

	cropid [PK] integer	name character varying (255)	growthperiod integer	yield numeric (10,2)	typeid integer
72	72	Tarragon	70	0.30	5
73	73	Thyme	60	0.50	5
74	74	Chives	30	0.20	5
75	75	Jicama	150	1.30	3
76	76	Celeriac	150	1.50	3
77	77	Fennel	100	1.00	3
78	78	Cardamom	180	2.50	9
79	79	Sage	90	0.80	5
80	80	Lavender	120	0.50	5
81	81	Nasturtium	60	0.30	5
82	82	Wild Garlic	90	0.50	5
83	83	Chickweed	50	0.30	5
84	84	Seaweed	30	0.60	13
85	85	Nettle	120	0.40	5
86	86	Taro	150	3.00	7
87	87	Cassava	180	4.00	7
88	88	Fenugreek	60	1.00	5
89	89	Fava Bean	90	1.20	2
90	90	Zea Mays	90	4.00	1

Total rows: 90 of 90 Query complete 00:00:00.082

SELECT * FROM crop;

Add Operation

Crop ID	Name	Growth Period	Yield	Type ID
1	Wheat	120	3.5	1
2	Rice	150	4.0	1
3	Barley	90	3.0	1
4	Oats	100	2.8	1
5	Corn	90	4.2	1
6	Soybean	100	2.75	2
7	Chickpea	110	1.5	2
8	Lentil	80	1.8	2
9	Pea	70	1.2	2
10	Black Bean	90	1.4	2
11	Carrot	90	1.5	3
12	Tomato	80	2.0	3
13	Lettuce	30	0.8	3

Add **Update** **Delete** **Load**

```
INSERT INTO Crop (CropID, Name, GrowthPeriod, Yield, TypeID)  
VALUES (91, 'Fodder', 120, 5.0, 3);
```

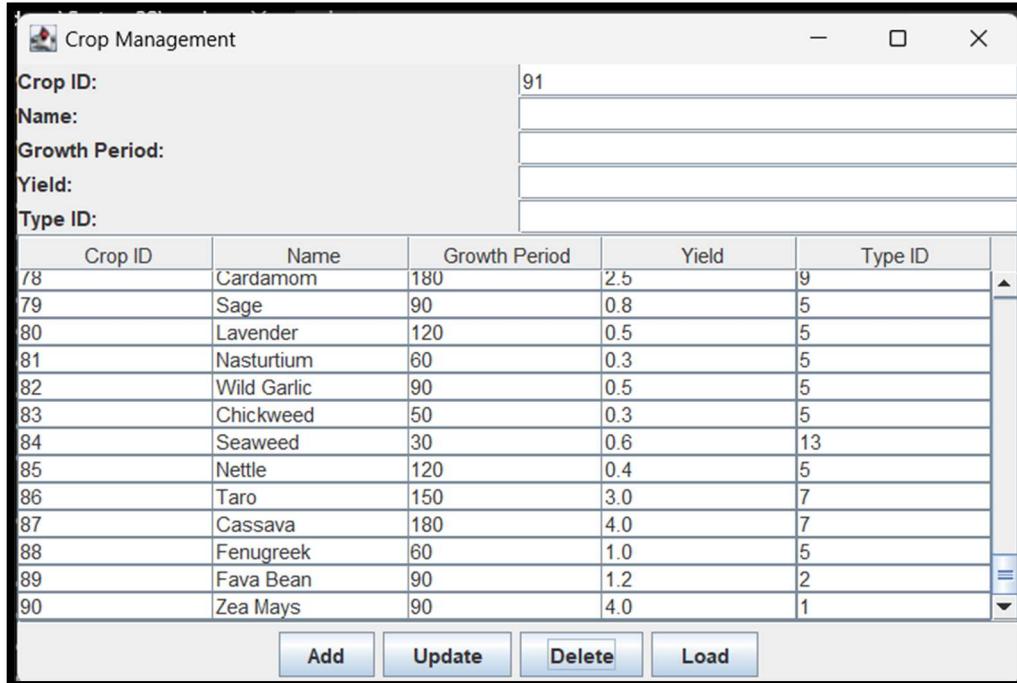
Update Operation

Crop ID	Name	Growth Period	Yield	Type ID
1	Wheat	120	3.5	1
2	Rice	150	4.0	1
3	Barley	90	3.0	1
4	Oats	100	2.8	1
5	Corn	90	4.2	1
6	Soybean	100	2.75	2
7	Chickpea	110	1.5	2
8	Lentil	80	1.8	2
9	Pea	70	1.2	2
10	Black Bean	90	1.4	2
11	Carrot	90	1.5	3
12	Tomato	80	2.0	3
13	Lettuce	30	0.8	3

Add **Update** **Delete** **Load**

```
UPDATE Crop SET Name = 'Kharif', GrowthPeriod = 80, Yield = 4.2, TypeID = 5  
WHERE CropID = 91;
```

Delete Operation



DELETE FROM Crop WHERE CropID = 91;

The screenshot shows a SQL database interface with a toolbar at the top and tabs for "Query", "Query History", "Data Output", "Messages", and "Notifications". The "Data Output" tab is selected, displaying a table of crop data. The table has columns: "croid" (PK integer), "name" (character varying (255)), "growthperiod" (integer), "yield" (numeric (10,2)), and "typeid" (integer). The data consists of 19 rows. At the bottom of the interface, it says "Total rows: 90 of 90" and "Query complete 00:00:00.097".

croid	name	growthperiod	yield	typeid
1	Wheat	120	3.50	1
2	Rice	150	4.00	1
3	Barley	90	3.00	1
4	Oats	100	2.80	1
5	Corn	90	4.20	1
6	Soybean	100	2.75	2
7	Chickpea	110	1.50	2
8	Lentil	80	1.80	2
9	Pea	70	1.20	2
10	Black Bean	90	1.40	2
11	Carrot	90	1.50	3
12	Tomato	80	2.00	3
13	Lettuce	30	0.80	3
14	Potato	120	4.00	3
15	Onion	120	2.50	3
16	Apple	180	5.00	4
17	Banana	365	8.00	4
18	Orange	365	7.50	4
19	Strawberry	120	2.00	4

3. CropType(TypeID, Type, AdditionalInfo)

The screenshot shows a Windows application window titled "Crop Type Management". The window has a standard title bar with minimize, maximize, and close buttons. Inside, there are three text input fields labeled "Type ID:", "Type:", and "Additional Info:". Below these is a table with three columns: "Type ID", "Type", and "Additional Info". The "Additional Info" column header is colored orange. At the bottom of the window are four buttons: "Add", "Update", "Delete", and "Load".

Initial stage of Crop Type Management prompt

Load Operation

Crop Type Management

Type ID:

Type:

Additional Info:

Type ID	Type	Additional Info
76	Urban Agriculture Crops	Includes crops suited for city garden.
77	Perennial Crops	Includes crops that grow back year after year.
78	Cover Crops	Used to cover soil between main crops.
79	Annual Flowers	Flowers that complete their life cycle in one season.
80	Plant-Based Proteins	Includes lentils, beans, and peas.
81	Carbon Farming Crops	Includes plants that help sequester carbon.
82	Floral Crops	Includes crops grown for their flowers.
83	Low-Input Crops	Crops that require fewer resources to grow.
84	Grazing Crops	Crops suitable for grazing animals.
85	Germplasm Conservation	Includes plants preserved for future use.
86	Non-Traditional Grains	Includes teff and fonio.
87	Hybrid Varieties	Crossbred varieties for enhanced traits.
88	Experimental Crops	Crops being trialed for potential benefits.
89	Indigenous Crops	Crops traditional to specific cultures.
90	Sustainable Seafood	Aquatic plants used in sustainable fishing.

Add Update Delete Load

Query History

1 select * from "G2SARM".CropType;

Data Output Messages Notifications

SQL

	typeid [PK] integer	type character varying (255)	additionalinfo text
72	72	Genetically Modified Crops	Crops altered for specific traits.
73	73	Organic Crops	Crops grown without synthetic chemicals.
74	74	Native Plants	Includes plants indigenous to a specific region.
75	75	Climate-Smart Crops	Includes crops resilient to climate change.
76	76	Urban Agriculture Crops	Includes crops suited for city gardening.
77	77	Perennial Crops	Includes crops that grow back year after year.
78	78	Cover Crops	Used to cover soil between main crops.
79	79	Annual Flowers	Flowers that complete their life cycle in one season.
80	80	Plant-Based Proteins	Includes lentils, beans, and peas.
81	81	Carbon Farming Crops	Includes plants that help sequester carbon.
82	82	Floral Crops	Includes crops grown for their flowers.
83	83	Low-Input Crops	Crops that require fewer resources to grow.
84	84	Grazing Crops	Crops suitable for grazing animals.
85	85	Germplasm Conservation	Includes plants preserved for future use.
86	86	Non-Traditional Grains	Includes teff and fonio.
87	87	Hybrid Varieties	Crossbred varieties for enhanced traits.
88	88	Experimental Crops	Crops being trialed for potential benefits.
89	89	Indigenous Crops	Crops traditional to specific cultures.
90	90	Sustainable Seafood	Aquatic plants used in sustainable fishing.

Total rows: 90 of 90 Query complete 00:00:00.081

SELECT * FROM CropType;

Add Operation

Crop Type Management

Type ID:	91	
Type:	Zaid	
Additional Info:		
Type ID	Type	Additional Info
77	Perennial Crops	Includes crops that grow back year after year.
78	Cover Crops	Used to cover soil between main crops.
79	Annual Flowers	Flowers that complete their life cycle in one season.
80	Plant-Based Proteins	Includes lentils, beans, and peas.
81	Carbon Farming Crops	Includes plants that help sequester carbon.
82	Floral Crops	Includes crops grown for their flowers.
83	Low-Input Crops	Crops that require fewer resources to grow.
84	Grazing Crops	Crops suitable for grazing animals.
85	Germplasm Conservation	Includes plants preserved for future use.
86	Non-Traditional Grains	Includes teff and fonio.
87	Hybrid Varieties	Crossbred varieties for enhanced traits.
88	Experimental Crops	Crops being trialed for potential benefits.
89	Indigenous Crops	Crops traditional to specific cultures.
90	Sustainable Seafood	Aquatic plants used in sustainable fishing.
91	Zaid	Zaid is a tropical plant that requires a hot and humid climate.

Add **Update** **Delete** **Load**

```
INSERT INTO CropType (TypeID, Type, AdditionalInfo)
VALUES (91, 'Zaid', 'Jute is a tropical plant that requires a hot and humid climate.');
```

Query History

1 select * from "G2SARM".CropType;

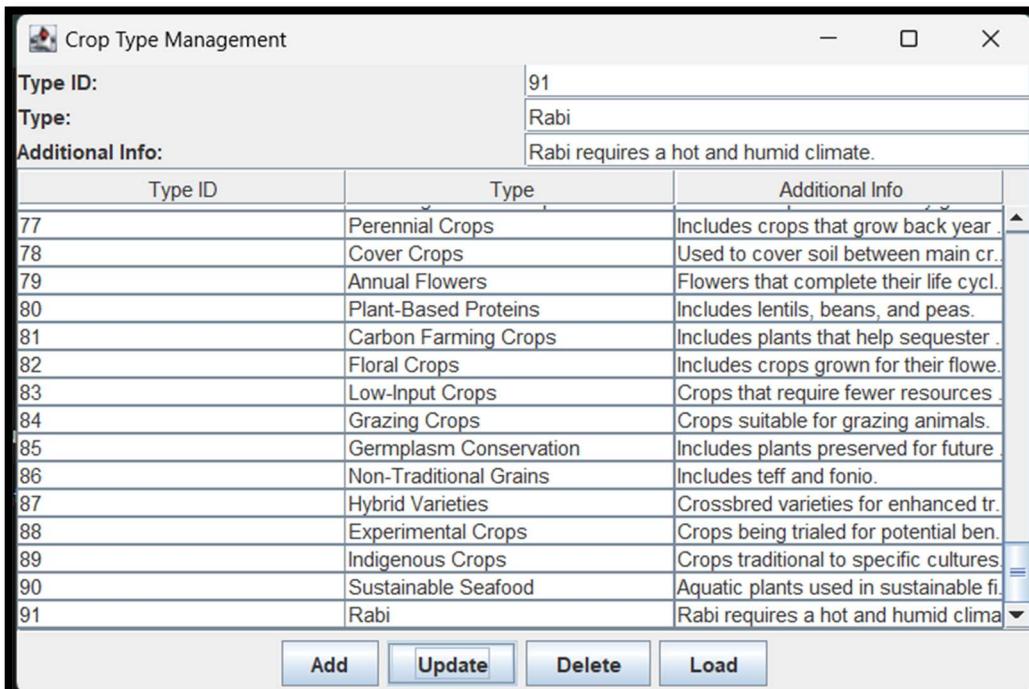
Data Output Messages Notifications

SQL

	typeid [PK] integer	type character varying (255)	additionalinfo text
73	73	Organic Crops	Crops grown without synthetic chemicals.
74	74	Native Plants	Includes plants indigenous to a specific region.
75	75	Climate-Smart Crops	Includes crops resilient to climate change.
76	76	Urban Agriculture Crops	Includes crops suited for city gardening.
77	77	Perennial Crops	Includes crops that grow back year after year.
78	78	Cover Crops	Used to cover soil between main crops.
79	79	Annual Flowers	Flowers that complete their life cycle in one season.
80	80	Plant-Based Proteins	Includes lentils, beans, and peas.
81	81	Carbon Farming Crops	Includes plants that help sequester carbon.
82	82	Floral Crops	Includes crops grown for their flowers.
83	83	Low-Input Crops	Crops that require fewer resources to grow.
84	84	Grazing Crops	Crops suitable for grazing animals.
85	85	Germplasm Conservation	Includes plants preserved for future use.
86	86	Non-Traditional Grains	Includes teff and fonio.
87	87	Hybrid Varieties	Crossbred varieties for enhanced traits.
88	88	Experimental Crops	Crops being trialed for potential benefits.
89	89	Indigenous Crops	Crops traditional to specific cultures.
90	90	Sustainable Seafood	Aquatic plants used in sustainable fishing.
91	91	Zaid	Zaid is a tropical plant that requires a hot and humid climate.

Total rows: 91 of 91 | Query complete 00:00:00.152

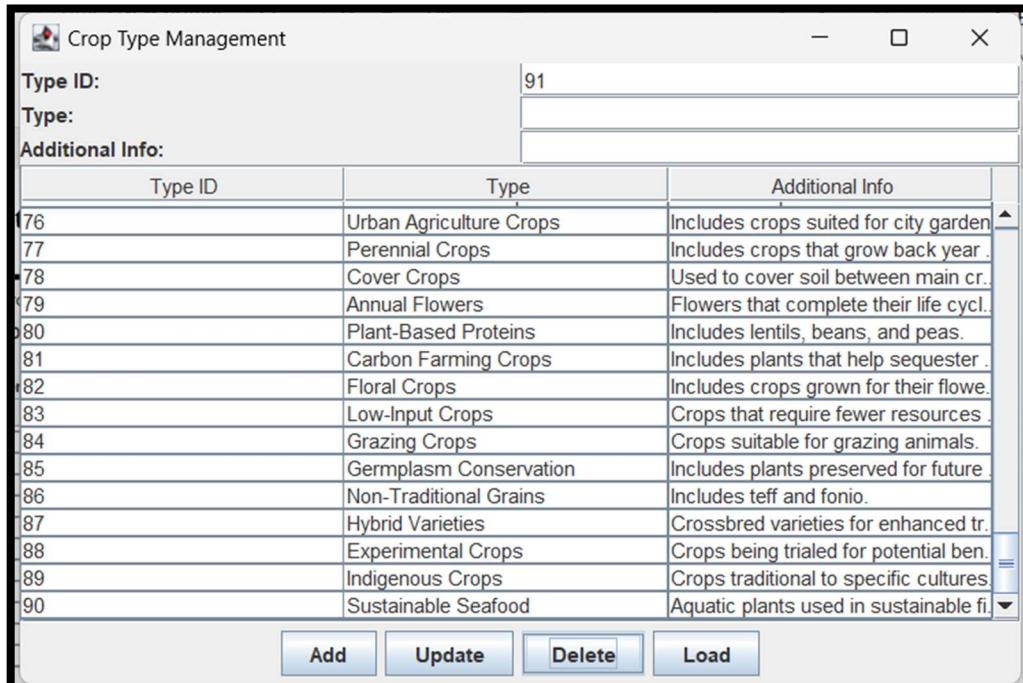
Update Operation



UPDATE CropType SET Type = 'Rabi', AdditionalInfo = 'Rabi requires a hot and humid climate.' WHERE TypeID = 91;

typeid	type	additionalinfo
73	Organic Crops	Crops grown without synthetic chemicals.
74	Native Plants	Includes plants indigenous to a specific region.
75	Climate-Smart Crops	Includes crops resilient to climate change.
76	Urban Agriculture Crops	Includes crops suited for city gardening.
77	Perennial Crops	Includes crops that grow back year after year.
78	Cover Crops	Used to cover soil between main crops.
79	Annual Flowers	Flowers that complete their life cycle in one season.
80	Plant-Based Proteins	Includes lentils, beans, and peas.
81	Carbon Farming Crops	Includes plants that help sequester carbon.
82	Floral Crops	Includes crops grown for their flowers.
83	Low-Input Crops	Crops that require fewer resources to grow.
84	Grazing Crops	Crops suitable for grazing animals.
85	Germplasm Conservation	Includes plants preserved for future use.
86	Non-Traditional Grains	Includes teff and fonio.
87	Hybrid Varieties	Crossbred varieties for enhanced traits.
88	Experimental Crops	Crops being trialed for potential benefits.
89	Indigenous Crops	Crops traditional to specific cultures.
90	Sustainable Seafood	Aquatic plants used in sustainable fishing.
91	Rabi	Rabi requires a hot and humid climate.

Delete Operation



DELETE FROM CropType WHERE TypeID = 91;

The screenshot shows a database query interface with a toolbar at the top and a table below. The table has three columns: "typeid", "type", and "additionalinfo". The data is identical to the table in the previous screenshot, listing 24 rows of crop types and their descriptions. At the bottom of the interface, it says "Total rows: 90 of 90" and "Query complete 00:00:00.114".

typeid	type	additionalinfo
72	Genetically Modified Crops	Crops altered for specific traits.
73	Organic Crops	Crops grown without synthetic chemicals.
74	Native Plants	Includes plants indigenous to a specific region.
75	Climate-Smart Crops	Includes crops resilient to climate change.
76	Urban Agriculture Crops	Includes crops suited for city gardening.
77	Perennial Crops	Includes crops that grow back year after year.
78	Cover Crops	Used to cover soil between main crops.
79	Annual Flowers	Flowers that complete their life cycle in one season.
80	Plant-Based Proteins	Includes lentils, beans, and peas.
81	Carbon Farming Crops	Includes plants that help sequester carbon.
82	Floral Crops	Includes crops grown for their flowers.
83	Low-Input Crops	Crops that require fewer resources to grow.
84	Grazing Crops	Crops suitable for grazing animals.
85	Germplasm Conservation	Includes plants preserved for future use.
86	Non-Traditional Grains	Includes teff and fonio.
87	Hybrid Varieties	Crossbred varieties for enhanced traits.
88	Experimental Crops	Crops being trialed for potential benefits.
89	Indigenous Crops	Crops traditional to specific cultures.
90	Sustainable Seafood	Aquatic plants used in sustainable fishing.

4. Technology(TechnologyID, Name, Purpose,TypeID)

The screenshot shows a Windows application window titled "Technology Management". The window has a standard title bar with minimize, maximize, and close buttons. Inside, there are four input fields labeled "Technology ID:", "Name:", "Purpose:", and "Type ID:". Below these fields is a table with four columns: "Technology ID", "Name", "Purpose", and "TypeID". A single row is visible in the table. At the bottom of the window are four buttons: "Add", "Update", "Delete", and "Load".

Technology ID	Name	Purpose	Type ID

Initial stage of Technology Management prompt

Load Operation

Technology Management

Technology ID:			
Name:			
Purpose:			
Type ID:			
Technology ID	Name	Purpose	Type ID
77	Regenerative Agriculture ...	Restoring and enhancing ...	8
78	Climate Resilient Crops	Developing crops that wit...	8
79	Mobile-Based Advisory S...	Providing expert advice to...	13
80	Digital Weather Forecasts	Accurate weather predicti...	3
81	Agricultural Knowledge Ex...	Facilitating knowledge sha...	13
82	Crop Insurance Programs	Providing financial securit...	13
83	AgriTech Startups	Innovations in agriculture t...	13
84	Internet of Things (IoT) in ...	Connecting devices for s...	4
85	Livestock Tracking Devic...	Monitoring livestock health...	10
86	Blockchain in Food Suppl...	Enhancing traceability and...	12
87	E-commerce for Farmers	Selling produce directly to...	12
88	Land Management Solutio...	Optimizing land use for su...	8
89	Water Purification for Agri...	Ensuring clean water for f...	14
90	Digital Marketplace Platfor...	Connecting buyers and se...	12

Add **Update** **Delete** **Load**

Query Query History

```
1 select * from "G2SARM".Technology;
```

Data Output Messages Notifications

SQL

technologyid [PK] integer	name character varying (255)	purpose text	typeid integer
72	72 Digital Platforms for Farmers	Online tools for farm management	4
73	73 Health and Safety Standards	Ensuring safe farming practices	14
74	74 Food Sovereignty Movements	Promoting local control over food systems	12
75	75 Sustainable Forestry Practices	Responsible management of forest resources	8
76	76 Indigenous Farming Practices	Traditional knowledge in agriculture	8
77	77 Regenerative Agriculture Techniques	Restoring and enhancing ecosystem health	8
78	78 Climate Resilient Crops	Developing crops that withstand climate change	8
79	79 Mobile-Based Advisory Services	Providing expert advice to farmers on mobile	13
80	80 Digital Weather Forecasts	Accurate weather predictions for rural areas	3
81	81 Agricultural Knowledge Exchange Platforms	Facilitating knowledge sharing among farmers	13
82	82 Crop Insurance Programs	Providing financial security against crop losses	13
83	83 AgriTech Startups	Innovations in agriculture technology	13
84	84 Internet of Things (IoT) in Agriculture	Connecting devices for smarter farming	4
85	85 Livestock Tracking Devices	Monitoring livestock health and location	10
86	86 Blockchain in Food Supply Chain	Enhancing traceability and transparency	12
87	87 E-commerce for Farmers	Selling produce directly to consumers online	12
88	88 Land Management Solutions	Optimizing land use for sustainability	8
89	89 Water Purification for Agriculture	Ensuring clean water for farming	14
90	90 Digital Marketplace Platforms	Connecting buyers and sellers of agricultural goods	12

Total rows: 90 of 90 Query complete 00:00:00.069

SELECT * FROM Technology;

Add Operation

Technology Management

Technology ID:	91																																																												
Name:	Robotic Technology																																																												
Purpose:	It can do monotonous tasks without sacrificing accuracy.																																																												
Type ID:	15																																																												
<table border="1"> <thead> <tr> <th>Technology ID</th> <th>Name</th> <th>Purpose</th> <th>Type ID</th> </tr> </thead> <tbody> <tr><td>78</td><td>Climate Resilient Crops</td><td>Developing crops that withstand climate change</td><td>8</td></tr> <tr><td>79</td><td>Mobile-Based Advisory Services</td><td>Providing expert advice to farmers on mobile</td><td>13</td></tr> <tr><td>80</td><td>Digital Weather Forecasts</td><td>Accurate weather predictions for rural areas</td><td>3</td></tr> <tr><td>81</td><td>Agricultural Knowledge Exchange Platforms</td><td>Facilitating knowledge sharing among farmers</td><td>13</td></tr> <tr><td>82</td><td>Crop Insurance Programs</td><td>Providing financial security against crop losses</td><td>13</td></tr> <tr><td>83</td><td>AgriTech Startups</td><td>Innovations in agriculture technology</td><td>13</td></tr> <tr><td>84</td><td>Internet of Things (IoT) in Agriculture</td><td>Connecting devices for smarter farming</td><td>4</td></tr> <tr><td>85</td><td>Livestock Tracking Devices</td><td>Monitoring livestock health and location</td><td>10</td></tr> <tr><td>86</td><td>Blockchain in Food Supply Chain</td><td>Enhancing traceability and transparency</td><td>12</td></tr> <tr><td>87</td><td>E-commerce for Farmers</td><td>Selling produce directly to consumers online</td><td>12</td></tr> <tr><td>88</td><td>Land Management Solutions</td><td>Optimizing land use for sustainability</td><td>8</td></tr> <tr><td>89</td><td>Water Purification for Agriculture</td><td>Ensuring clean water for farming</td><td>14</td></tr> <tr><td>90</td><td>Digital Marketplace Platforms</td><td>Connecting buyers and sellers of agricultural goods</td><td>12</td></tr> <tr><td>91</td><td>Robotic Technology</td><td>It can do monotonous tasks without sacrificing accuracy.</td><td>15</td></tr> </tbody> </table>		Technology ID	Name	Purpose	Type ID	78	Climate Resilient Crops	Developing crops that withstand climate change	8	79	Mobile-Based Advisory Services	Providing expert advice to farmers on mobile	13	80	Digital Weather Forecasts	Accurate weather predictions for rural areas	3	81	Agricultural Knowledge Exchange Platforms	Facilitating knowledge sharing among farmers	13	82	Crop Insurance Programs	Providing financial security against crop losses	13	83	AgriTech Startups	Innovations in agriculture technology	13	84	Internet of Things (IoT) in Agriculture	Connecting devices for smarter farming	4	85	Livestock Tracking Devices	Monitoring livestock health and location	10	86	Blockchain in Food Supply Chain	Enhancing traceability and transparency	12	87	E-commerce for Farmers	Selling produce directly to consumers online	12	88	Land Management Solutions	Optimizing land use for sustainability	8	89	Water Purification for Agriculture	Ensuring clean water for farming	14	90	Digital Marketplace Platforms	Connecting buyers and sellers of agricultural goods	12	91	Robotic Technology	It can do monotonous tasks without sacrificing accuracy.	15
Technology ID	Name	Purpose	Type ID																																																										
78	Climate Resilient Crops	Developing crops that withstand climate change	8																																																										
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<input type="button" value="Add"/> <input type="button" value="Update"/> <input type="button" value="Delete"/> <input type="button" value="Load"/>																																																													

INSERT INTO Technology (TechnologyID, Name, Purpose,TypeID)
VALUES (91, 'Robotic Technology', 'It can do monotonous tasks without sacrificing accuracy.', 15);

Query History

```
1 select * from "G2SARM".Technology;
```

Data Output Messages Notifications

technologyid [PK] integer	name character varying (255)	purpose text	typeid integer	
73	73	Health and Safety Standards	Ensuring safe farming practices	14
74	74	Food Sovereignty Movements	Promoting local control over food systems	12
75	75	Sustainable Forestry Practices	Responsible management of forest resources	8
76	76	Indigenous Farming Practices	Traditional knowledge in agriculture	8
77	77	Regenerative Agriculture Techniques	Restoring and enhancing ecosystem health	8
78	78	Climate Resilient Crops	Developing crops that withstand climate change	8
79	79	Mobile-Based Advisory Services	Providing expert advice to farmers on mobile	13
80	80	Digital Weather Forecasts	Accurate weather predictions for rural areas	3
81	81	Agricultural Knowledge Exchange Platforms	Facilitating knowledge sharing among farmers	13
82	82	Crop Insurance Programs	Providing financial security against crop losses	13
83	83	AgriTech Startups	Innovations in agriculture technology	13
84	84	Internet of Things (IoT) in Agriculture	Connecting devices for smarter farming	4
85	85	Livestock Tracking Devices	Monitoring livestock health and location	10
86	86	Blockchain in Food Supply Chain	Enhancing traceability and transparency	12
87	87	E-commerce for Farmers	Selling produce directly to consumers online	12
88	88	Land Management Solutions	Optimizing land use for sustainability	8
89	89	Water Purification for Agriculture	Ensuring clean water for farming	14
90	90	Digital Marketplace Platforms	Connecting buyers and sellers of agricultural goods	12
91	91	Robotic Technology	It can do monotonous tasks without sacrificing accuracy.	

Total rows: 91 of 91 Query complete 00:00:00.078

Successfully run. To

Update Operation

Technology Management

Technology ID:	91		
Name:	Smart Agriculture Sensors		
Purpose:	help of agriculture sensor technology		
Type ID:	25		
Technology ID	Name	Purpose	Type ID
78	Climate Resilient Crops	Developing crops that withstand climate change	8
79	Mobile-Based Advisory Services	Providing expert advice to farmers on mobile	13
80	Digital Weather Forecasts	Accurate weather predictions for rural areas	3
81	Agricultural Knowledge Exchange Platforms	Facilitating knowledge sharing among farmers	13
82	Crop Insurance Programs	Providing financial security against crop losses	13
83	AgriTech Startups	Innovations in agriculture technology	13
84	Internet of Things (IoT) in Agriculture	Connecting devices for smarter farming	4
85	Livestock Tracking Devices	Monitoring livestock health and location	10
86	Blockchain in Food Supply Chain	Enhancing traceability and transparency	12
87	E-commerce for Farmers	Selling produce directly to consumers online	12
88	Land Management Solutions	Optimizing land use for sustainability	8
89	Water Purification for Agriculture	Ensuring clean water for farming	14
90	Digital Marketplace Platforms	Connecting buyers and sellers of agricultural goods	12
91	Smart Agriculture Sensors	help of agriculture sensor technology	25

Add Update Delete Load

UPDATE Technology SET Name = 'Smart Agriculture Sensors', Purpose = 'help of agriculture sensor technology.', TypeID = 25 WHERE TechnologyID = 91;

Query Query History

```
1 select * from "G2SARM".Technology;
```

Data Output Messages Notifications

SQL

technologyid [PK] integer	name character varying (255)	purpose text	typeid integer
73	73	Ensuring safe farming practices	14
74	74	Promoting local control over food systems	12
75	75	Responsible management of forest resources	8
76	76	Traditional knowledge in agriculture	8
77	77	Restoring and enhancing ecosystem health	8
78	78	Developing crops that withstand climate change	8
79	79	Providing expert advice to farmers on mobile	13
80	80	Accurate weather predictions for rural areas	3
81	81	Facilitating knowledge sharing among farmers	13
82	82	Providing financial security against crop losses	13
83	83	Innovations in agriculture technology	13
84	84	Connecting devices for smarter farming	4
85	85	Monitoring livestock health and location	10
86	86	Enhancing traceability and transparency	12
87	87	Selling produce directly to consumers online	12
88	88	Optimizing land use for sustainability	8
89	89	Ensuring clean water for farming	14
90	90	Connecting buyers and sellers of agricultural goods	12
91	91	help of agriculture sensor technology	25

Total rows: 91 of 91 Query complete 00:00:00.084

Delete Operation

Technology Management

Technology ID:	91		
Name:			
Purpose:			
Type ID:			
Technology ID	Name	Purpose	Type ID
77	Regenerative Agriculture Techniques	Restoring and enhancing ecosystem health	8
78	Climate Resilient Crops	Developing crops that withstand climate change	8
79	Mobile-Based Advisory Services	Providing expert advice to farmers on mobile	13
80	Digital Weather Forecasts	Accurate weather predictions for rural areas	3
81	Agricultural Knowledge Exchange Platforms	Facilitating knowledge sharing among farmers	13
82	Crop Insurance Programs	Providing financial security against crop losses	13
83	AgriTech Startups	Innovations in agriculture technology	13
84	Internet of Things (IoT) in Agriculture	Connecting devices for smarter farming	4
85	Livestock Tracking Devices	Monitoring livestock health and location	10
86	Blockchain in Food Supply Chain	Enhancing traceability and transparency	12
87	E-commerce for Farmers	Selling produce directly to consumers online	12
88	Land Management Solutions	Optimizing land use for sustainability	8
89	Water Purification for Agriculture	Ensuring clean water for farming	14
90	Digital Marketplace Platforms	Connecting buyers and sellers of agricultural goods	12

Add Update Delete Load

DELETE FROM Technology WHERE TechnologyID = 91;

Query History

```
1 select * from "G2SARM".Technology;
```

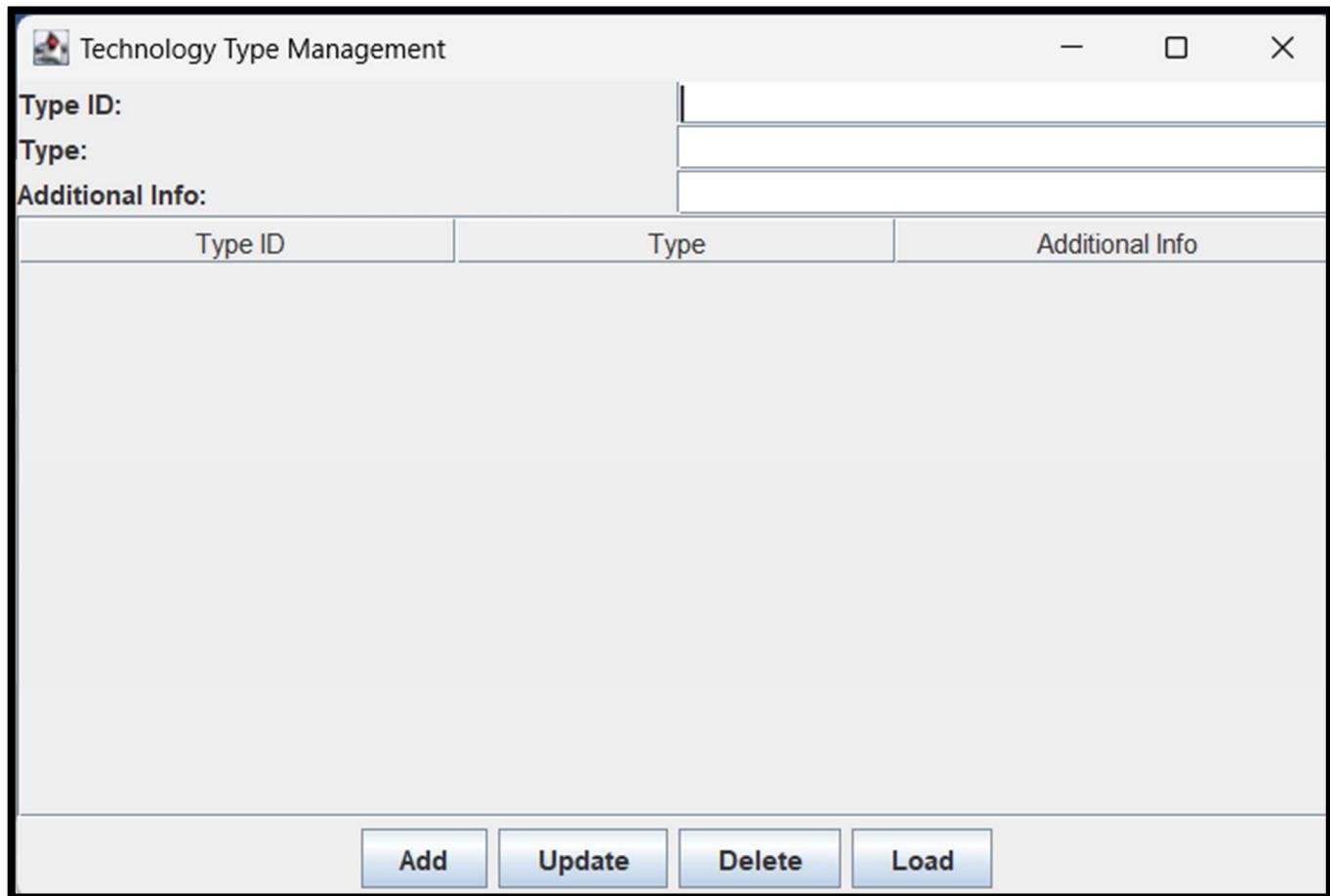
Data Output Messages Notifications

SQL

technologyid [PK] integer	name character varying (255)	purpose text	typeid integer
72	Digital Platforms for Farmers	Online tools for farm management	4
73	Health and Safety Standards	Ensuring safe farming practices	14
74	Food Sovereignty Movements	Promoting local control over food systems	12
75	Sustainable Forestry Practices	Responsible management of forest resources	8
76	Indigenous Farming Practices	Traditional knowledge in agriculture	8
77	Regenerative Agriculture Techniques	Restoring and enhancing ecosystem health	8
78	Climate Resilient Crops	Developing crops that withstand climate change	8
79	Mobile-Based Advisory Services	Providing expert advice to farmers on mobile	13
80	Digital Weather Forecasts	Accurate weather predictions for rural areas	3
81	Agricultural Knowledge Exchange Platforms	Facilitating knowledge sharing among farmers	13
82	Crop Insurance Programs	Providing financial security against crop losses	13
83	AgriTech Startups	Innovations in agriculture technology	13
84	Internet of Things (IoT) in Agriculture	Connecting devices for smarter farming	4
85	Livestock Tracking Devices	Monitoring livestock health and location	10
86	Blockchain in Food Supply Chain	Enhancing traceability and transparency	12
87	E-commerce for Farmers	Selling produce directly to consumers online	12
88	Land Management Solutions	Optimizing land use for sustainability	8
89	Water Purification for Agriculture	Ensuring clean water for farming	14
90	Digital Marketplace Platforms	Connecting buyers and sellers of agricultural goods	

Total rows: 90 of 90 Query complete 00:00:00.090 ✓ Successfully run

5. TechnologyType(TypeID, Type, AdditionalInfo)



The screenshot shows a Windows application window titled "Technology Type Management". The window has a standard title bar with minimize, maximize, and close buttons. Inside, there are three input fields labeled "Type ID:", "Type:", and "Additional Info:". Below these is a table with three columns: "Type ID", "Type", and "Additional Info". At the bottom of the window are four buttons: "Add", "Update", "Delete", and "Load".

Type ID	Type	Additional Info
---------	------	-----------------

Add

Update

Delete

Load

Initial stage of Technology Type Management prompt

Load Operation

Technology Type Management

Type ID:	Type	Additional Info
76	Rural Innovation Hubs	Centers for fostering agricultural innovation.
77	Interactive Farming Simulations	Simulating farming scenarios for training and education.
78	Artificial Intelligence in Crop Breeding	Using AI for crop breeding processes.
79	Agroforestry Practices	Integrating trees into agricultural landscapes.
80	Organic Certification Technologies	Systems for certifying organic products.
81	Local Food Networks	Connecting local farmers with consumers.
82	Alternative Protein Sources	Innovations in producing alternative proteins.
83	Carbon Footprint Tracking	Tools to measure and manage carbon footprints in agriculture.
84	Soil Nutrient Testing Kits	Tools for on-site soil nutrient testing.
85	Youth Engagement Programs in Agriculture	Programs to engage youth in farming.
86	Resource-Efficient Farming Techniques	Practices minimizing resource use.
87	Smart Logistics for Agriculture	Optimizing supply chain logistics for agriculture.
88	Collaborative Farming Technologies	Platforms for collaborative agricultural practices.
89	Biodegradable Mulches	Environmentally friendly mulching options for crops.
90	Circular Economy in Agriculture	Implementing circular economy principles in farming.

Add Update Delete Load

Query Query History

```
1 select * from "G2SARM".TechnologyType;
```

Data Output Messages Notifications

SQL

typeid [PK] integer	type character varying (255)	additionalinfo text
72	Integrated Pest Management Solutions	Comprehensive systems for pest management.
73	Remote Sensing Technologies	Using satellite imagery for crop monitoring.
74	Climate Adaptation Tools	Technologies to help adapt to climate change impacts.
75	Hydrological Modeling	Models to analyze water resources for agriculture.
76	Rural Innovation Hubs	Centers for fostering agricultural innovation in rural areas.
77	Interactive Farming Simulations	Simulating farming scenarios for training and education.
78	Artificial Intelligence in Crop Breeding	Using AI for crop breeding processes.
79	Agroforestry Practices	Integrating trees into agricultural landscapes.
80	Organic Certification Technologies	Systems for certifying organic products.
81	Local Food Networks	Connecting local farmers with consumers.
82	Alternative Protein Sources	Innovations in producing alternative proteins.
83	Carbon Footprint Tracking	Tools to measure and manage carbon footprints in agriculture.
84	Soil Nutrient Testing Kits	Tools for on-site soil nutrient testing.
85	Youth Engagement Programs in Agriculture	Programs to engage youth in farming.
86	Resource-Efficient Farming Techniques	Practices minimizing resource use.
87	Smart Logistics for Agriculture	Optimizing supply chain logistics for agriculture.
88	Collaborative Farming Technologies	Platforms for collaborative agricultural practices.
89	Biodegradable Mulches	Environmentally friendly mulching options for crops.
90	Circular Economy in Agriculture	Implementing circular economy principles in farming.

Total rows: 90 of 90 Query complete 00:00:00.106

SELECT * FROM TechnologyType;

Add Operation

Technology Type Management

Type ID:	91	
Type:	Irrigation Technology	
Additional Info:	Technologies used to optimize water usage in agriculture, including systems like drip irrigation, sprinkler systems, and smart irrigation.	
Type ID	Type	Additional Info
77	Interactive Farming Simulations	Simulating farming scenarios for training and education.
78	Artificial Intelligence in Crop Breeding	Using AI for crop breeding processes.
79	Agroforestry Practices	Integrating trees into agricultural land.
80	Organic Certification Technologies	Systems for certifying organic products.
81	Local Food Networks	Connecting local farmers with consumers.
82	Alternative Protein Sources	Innovations in producing alternative proteins.
83	Carbon Footprint Tracking	Tools to measure and manage carbon footprints.
84	Soil Nutrient Testing Kits	Tools for on-site soil nutrient testing.
85	Youth Engagement Programs in Agriculture	Programs to engage youth in farming.
86	Resource-Efficient Farming Techniques	Practices minimizing resource use.
87	Smart Logistics for Agriculture	Optimizing supply chain logistics for agriculture.
88	Collaborative Farming Technologies	Platforms for collaborative agricultural practices.
89	Biodegradable Mulches	Environmentally friendly mulching options for crops.
90	Circular Economy in Agriculture	Implementing circular economy principles in farming.
91	Irrigation Technology	Technologies used to optimize water usage in agriculture, including systems like drip irrigation, sprinkler systems, and smart irrigation.

Add **Update** **Delete** **Load**

INSERT INTO TechnologyType (TypeID, Type, AdditionalInfo)VALUES (91, 'Irrigation Technology', 'Technologies used to optimize water usage in agriculture, including systems like drip irrigation, sprinkler systems, and smart irrigation.');

Query History

```
1 select * from "G2SARM".TechnologyType;
```

Data Output Messages Notifications

SQL

	typeid [PK] integer	type character varying (255)	additionalinfo text
73	73	Remote Sensing Technologies	Using satellite imagery for crop monitoring.
74	74	Climate Adaptation Tools	Technologies to help adapt to climate change impacts.
75	75	Hydrological Modeling	Models to analyze water resources for agriculture.
76	76	Rural Innovation Hubs	Centers for fostering agricultural innovation in rural areas.
77	77	Interactive Farming Simulations	Simulating farming scenarios for training and education.
78	78	Artificial Intelligence in Crop Breeding	Using AI for crop breeding processes.
79	79	Agroforestry Practices	Integrating trees into agricultural landscapes.
80	80	Organic Certification Technologies	Systems for certifying organic products.
81	81	Local Food Networks	Connecting local farmers with consumers.
82	82	Alternative Protein Sources	Innovations in producing alternative proteins.
83	83	Carbon Footprint Tracking	Tools to measure and manage carbon footprints in agriculture.
84	84	Soil Nutrient Testing Kits	Tools for on-site soil nutrient testing.
85	85	Youth Engagement Programs in Agriculture	Programs to engage youth in farming.
86	86	Resource-Efficient Farming Techniques	Practices minimizing resource use.
87	87	Smart Logistics for Agriculture	Optimizing supply chain logistics for agriculture.
88	88	Collaborative Farming Technologies	Platforms for collaborative agricultural practices.
89	89	Biodegradable Mulches	Environmentally friendly mulching options for crops.
90	90	Circular Economy in Agriculture	Implementing circular economy principles in farming.
91	91	Irrigation Technology	Technologies used to optimize water usage in agriculture, including systems like drip irrigation, sprinkler systems, and smart irrigation.

Total rows: 91 of 91 Query complete 00:00:00.099

Update Operation

Technology Type Management

Type ID:	91	
Type:	'Sustainable Irrigation Technology'	
Additional Info:	Technologies used to optimize water usage in agriculture.	
Type ID	Type	Additional Info
77	Interactive Farming Simulations	Simulating farming scenarios for training and education.
78	Artificial Intelligence in Crop Breeding	Using AI for crop breeding processes.
79	Agroforestry Practices	Integrating trees into agricultural landscapes.
80	Organic Certification Technologies	Systems for certifying organic products.
81	Local Food Networks	Connecting local farmers with consumers.
82	Alternative Protein Sources	Innovations in producing alternative proteins.
83	Carbon Footprint Tracking	Tools to measure and manage carbon footprints.
84	Soil Nutrient Testing Kits	Tools for on-site soil nutrient testing.
85	Youth Engagement Programs in Agriculture	Programs to engage youth in farming.
86	Resource-Efficient Farming Techniques	Practices minimizing resource use.
87	Smart Logistics for Agriculture	Optimizing supply chain logistics for agriculture.
88	Collaborative Farming Technologies	Platforms for collaborative agricultural practices.
89	Biodegradable Mulches	Environmentally friendly mulching options for crops.
90	Circular Economy in Agriculture	Implementing circular economy principles in farming.
91	'Sustainable Irrigation Technology'	Technologies used to optimize water usage in agriculture.

Add Update Delete Load

UPDATE TechnologyType SET Type = 'Sustainable Irrigation Technology',
 AdditionalInfo = 'Technologies focused on sustainable water usage, including smart irrigation systems, rainwater harvesting, and water-efficient drip systems.' WHERE
 TypeID = 91;

Query Query History

```
1 select * from "G2SARM".TechnologyType;
```

Data Output Messages Notifications

SQL

	typeid [PK] integer	type character varying (255)	additionalinfo text
73	73	Remote Sensing Technologies	Using satellite imagery for crop monitoring.
74	74	Climate Adaptation Tools	Technologies to help adapt to climate change impacts.
75	75	Hydrological Modeling	Models to analyze water resources for agriculture.
76	76	Rural Innovation Hubs	Centers for fostering agricultural innovation in rural areas.
77	77	Interactive Farming Simulations	Simulating farming scenarios for training and education.
78	78	Artificial Intelligence in Crop Breeding	Using AI for crop breeding processes.
79	79	Agroforestry Practices	Integrating trees into agricultural landscapes.
80	80	Organic Certification Technologies	Systems for certifying organic products.
81	81	Local Food Networks	Connecting local farmers with consumers.
82	82	Alternative Protein Sources	Innovations in producing alternative proteins.
83	83	Carbon Footprint Tracking	Tools to measure and manage carbon footprints in agriculture.
84	84	Soil Nutrient Testing Kits	Tools for on-site soil nutrient testing.
85	85	Youth Engagement Programs in Agriculture	Programs to engage youth in farming.
86	86	Resource-Efficient Farming Techniques	Practices minimizing resource use.
87	87	Smart Logistics for Agriculture	Optimizing supply chain logistics for agriculture.
88	88	Collaborative Farming Technologies	Platforms for collaborative agricultural practices.
89	89	Biodegradable Mulches	Environmentally friendly mulching options for crops.
90	90	Circular Economy in Agriculture	Implementing circular economy principles in farming.
91	91	'Sustainable Irrigation Technology'	Technologies used to optimize water usage in agriculture, including smart irrigation systems, rainwater harvesting, and water-efficient drip systems.

Total rows: 91 of 91 Query complete 00:00:00.169

Delete Operation

Technology Type Management

Type ID:	91	
Type:		
Additional Info:		
Type ID	Type	Additional Info
76	Rural Innovation Hubs	Centers for fostering agricultural innovation.
77	Interactive Farming Simulations	Simulating farming scenarios for training and education.
78	Artificial Intelligence in Crop Breeding	Using AI for crop breeding processes.
79	Agroforestry Practices	Integrating trees into agricultural landscapes.
80	Organic Certification Technologies	Systems for certifying organic products.
81	Local Food Networks	Connecting local farmers with consumers.
82	Alternative Protein Sources	Innovations in producing alternative proteins.
83	Carbon Footprint Tracking	Tools to measure and manage carbon footprints in agriculture.
84	Soil Nutrient Testing Kits	Tools for on-site soil nutrient testing.
85	Youth Engagement Programs in Agriculture	Programs to engage youth in farming.
86	Resource-Efficient Farming Techniques	Practices minimizing resource use.
87	Smart Logistics for Agriculture	Optimizing supply chain logistics for agriculture.
88	Collaborative Farming Technologies	Platforms for collaborative agricultural practices.
89	Biodegradable Mulches	Environmentally friendly mulching options for crops.
90	Circular Economy in Agriculture	Implementing circular economy principles in farming.

Add Update Delete Load

DELETE FROM TechnologyType WHERE TypeID = 91;

Query History

```
1 select * from "G2SARM".TechnologyType;
```

Data Output Messages Notifications

SQL

typeid [PK] integer	type character varying (255)	additionalinfo text
72	Integrated Pest Management Solutions	Comprehensive systems for pest management.
73	Remote Sensing Technologies	Using satellite imagery for crop monitoring.
74	Climate Adaptation Tools	Technologies to help adapt to climate change impacts.
75	Hydrological Modeling	Models to analyze water resources for agriculture.
76	Rural Innovation Hubs	Centers for fostering agricultural innovation in rural areas.
77	Interactive Farming Simulations	Simulating farming scenarios for training and education.
78	Artificial Intelligence in Crop Breeding	Using AI for crop breeding processes.
79	Agroforestry Practices	Integrating trees into agricultural landscapes.
80	Organic Certification Technologies	Systems for certifying organic products.
81	Local Food Networks	Connecting local farmers with consumers.
82	Alternative Protein Sources	Innovations in producing alternative proteins.
83	Carbon Footprint Tracking	Tools to measure and manage carbon footprints in agriculture.
84	Soil Nutrient Testing Kits	Tools for on-site soil nutrient testing.
85	Youth Engagement Programs in Agriculture	Programs to engage youth in farming.
86	Resource-Efficient Farming Techniques	Practices minimizing resource use.
87	Smart Logistics for Agriculture	Optimizing supply chain logistics for agriculture.
88	Collaborative Farming Technologies	Platforms for collaborative agricultural practices.
89	Biodegradable Mulches	Environmentally friendly mulching options for crops.
90	Circular Economy in Agriculture	Implementing circular economy principles in farming.

Total rows: 90 of 90 Query complete 00:00:00.140