**Fetch Queries**

1. **Fetch farmers who have applied for multiple government schemes**

SELECT u.id,u.name, COUNT(s.scheme\_id) AS total\_schemes

FROM users u

JOIN scheme\_applications s ON u.id = s.farmer\_id

GROUP BY u.name,u.id;

**Output :**

[

{

“id”:3,

“name”:”Sneha Patil”,

“total\_schemes” : 2

},

{

“id”:1,

“name”: “Rajesh Kulkarni”,

“total\_schemes” : 2

},

{

“id”:5,

“name”: “Rahul Sharma”,

“total\_schemes” : 3

},

“id”:7,

“name”: “Rohit Pawar”,

“total\_schemes” : 2

},

{

“id”:8,

“name”: “Karan Sharma”,

“total\_schemes” : 3

}

]

1. **Fetch total revenue generated by Service**

SELECT s.service\_id,s.service\_name, SUM(p.amount\_paid) AS total\_revenue

FROM payment p

JOIN agreement a ON p.agreement\_id = a.agreement\_id

JOIN service s ON a.reference\_id = s.service\_id

WHERE a.type = 'service' AND p.payment\_status = 'Paid'

GROUP BY s.service\_name, s.service\_id

ORDER BY total\_revenue DESC

LIMIT 1;

**Output :**

[

{

“service\_id”:7,

“service\_name”: “Greenhouse Construction”,

“total\_revenue”:7000

},

{

“service\_id”:3,

“service\_name”:” Soil Testing”,

“total\_revenue”:3000

},

{

“service\_id”:5,

“service\_name”:” Fertilizer Application”,

“total\_revenue”:2000

},

{

“service\_id”:4,

“service\_name”: “Pest Control”,

“total\_revenue”:1500

},

]

1. **Fetch most accepted services**

SELECT s.service\_id, s.service\_name, COUNT(a.agreement\_id) AS total

FROM agreement a

JOIN service s ON a.reference\_id = s.service\_id

WHERE a.type = 'service' AND a.status = 'accepted'

GROUP BY s.service\_name

ORDER BY total DESC;

**Output :**

[

{

“service\_id”=1,

“Service\_name”= “Fertilizer Application”,

“total”=1

},

{

“service\_id”=2,

“Service\_name”=”Fencing”,

“total”=2

},

{

“service\_id”=3,

“Service\_name”= “Harvester”,

“total”=2

},

{

“service\_id”=4,

“Service\_name”= “Labour”,

“total”=3

},

{

“service\_id”=5,

“Service\_name”= “Cultivevtor”,

“Total”=3

},

{

“service\_id”=10,

“Service\_name”= “Pest Control”,

“total”=1

},

]

1. **Fetch pending payments by users**

SELECT p.payment\_id, u.name AS user\_name, p.amount\_paid, p.payment\_status, a.status AS agreement\_status

FROM payment p

JOIN agreement a ON p.agreement\_id = a.agreement\_id

JOIN users u ON a.user\_id = u.id

WHERE p.payment\_status = 'Pending';

**Output :**

[

{

"payment\_id": 3,

"user\_name": "Rajesh Kulkarni",

"amount\_paid": 42000.00,

"payment\_status": "Pending",

"agreement\_status": "pending"

}.

{

"payment\_id": 4,

"user\_name": "karan Sharma",

"amount\_paid": 22000.00,

"payment\_status": "Pending",

"agreement\_status": "pending"

},

{

"payment\_id": 5,

"user\_name": "Hardik Joshi",

"amount\_paid": 12000.00,

"payment\_status": "Pending",

"agreement\_status": "pending"

},

{

"payment\_id": 6,

"user\_name": "Vinod Varma",

"amount\_paid": 15000.00,

"payment\_status": "Pending",

"agreement\_status": "pending"

},

{

"payment\_id": 7,

"user\_name": "Ram Kumar",

"amount\_paid": 39000.00,

"payment\_status": "Pending",

"agreement\_status": "pending"

}

]

1. **List of services provided by service provider**

SELECT u.id, u.name AS service\_provider\_name, s.service\_id, s.service\_name, s.price, s.duration as cost\_for, s.description

FROM users u

JOIN service s ON u.id = s.service\_provider\_id

WHERE u.type\_of\_user = 'service\_provider';

**Output :**

[

{

"id": 4,

"service\_provider\_name": "GreenGrow Services",

"service\_id": 1,

"service\_name": "Tractor Ploughing",

"price": 2500.00,

" cost\_for ": "Per Acre",

"description": "Tractor ploughing service for land preparation"

},

{

"id": 7,

"service\_provider\_name": "FarmCare Solutions",

"service\_id": 2,

"service\_name": "Irrigation Setup",

"price": 7000.00,

" cost\_for ": "Per Acre",

"description": "Drip irrigation and sprinkler setup for farmlands"

},

{

"id": 4,

"service\_provider\_name": "GreenGrow Services",

"service\_id": 3,

"service\_name": "Soil Testing",

"price": 1500.00,

" cost\_for ": "Per Sample",

"description": "Detailed soil testing and nutrient analysis"

},

{

"id": 7,

"service\_provider\_name": "FarmCare Solutions",

"service\_id": 4,

"service\_name": "Pest Control",

"price": 3000.00,

" cost\_for ": "Per Acre",

"description": "Chemical and organic pest control treatments"

},

{

"id": 4,

"service\_provider\_name": "GreenGrow Services",

"service\_id": 5,

"service\_name": "Fertilizer Application",

"price": 2000.00,

" cost\_for ": "Per Acre",

"description": "Automated and manual fertilizer application service"

},

{

"id": 7,

"service\_provider\_name": "FarmCare Solutions",

"service\_id": 6,

"service\_name": "Harvesting Assistance",

"price": 5000.00,

" cost\_for ": "Per Acre",

"description": "Machinery and labor support for harvesting"

},

{

"id": 4,

"service\_provider\_name": "GreenGrow Services",

"service\_id": 7,

"service\_name": "Greenhouse Construction",

"price": 25000.00,

" cost\_for ": "Per 1000 sq.ft",

"description": "Greenhouse installation for modern farming"

}

]

1. **Fetch users who not register any property but taken a service**

SELECT DISTINCT u.id, u.name, u.email, u.contact

FROM users u

LEFT JOIN property p ON u.id = p.farmer\_id

JOIN agreement a ON u.id = a.user\_id

WHERE p.property\_id IS NULL AND a.type = 'service' and u.type\_of\_user='farmer';

**Output :**

[

{

"id": 10,

"name": "Vijay Sharma",

"email": "vijay@gmail.com",

"contact": "9876540010"

},

{

"id": 1,

"name": "Rohit Pawar",

"email": "rohit@gmail.com",

"contact": "9876512310"

},

{

"id": 2,

"name": "Nihal Singh",

"email": "nihal@gmail.com",

"contact": "9876523410"

},

{

"id": 3,

"name": "Manjeet Chiller",

"email": "manjeet@gmail.com",

"contact": "9876534510"

},

{

"id": 4,

"name": "Vijay Sharma",

"email": "vijay@gmail.com",

"contact": "9876545610"

},

]

1. **Fetch the type of property who have get multiple services**

SELECT p.type\_of\_land, COUNT(a.agreement\_id) AS total\_services,

STRING\_AGG(s.service\_name,',') AS service\_names

FROM property p

JOIN agreement a ON p.property\_id = a.reference\_id

join service s on a.reference\_id=s.service\_id

WHERE a.type = 'service'

GROUP BY p.type\_of\_land

ORDER BY total\_services DESC;

**Output :**

[

{

"type\_of\_land": "Irrigated Land",

"total\_services": 3,

“service\_names”: Soil Testing, Pest Control, Pest Control

},

{

"type\_of\_land": "Rainfed Land",

"total\_services": 2,

“service\_names”: Fertilizer Application, Greenhouse Construction

}

]

1. **Fetch list of user who has most number of agreements**

SELECT u.id, u.name, u.type\_of\_user, COUNT(a.agreement\_id) AS total\_agreements

FROM users u

JOIN agreement a ON u.id = a.user\_id

GROUP BY u.id, u.name, u.type\_of\_user

ORDER BY total\_agreements DESC

LIMIT 5;

**Output :**

[

{

"id": 1,

"name": "Rahul Sharma",

"type\_of\_user": "farmer",

"total\_agreements": 2

},

{

"id": 6,

"name": "Mahindra Agri Ltd",

"type\_of\_user": "company",

"total\_agreements": 1

},

{

"id": 2,

"name": "AgroFarms Pvt Ltd",

"type\_of\_user": "company",

"total\_agreements": 1

},

{

"id": 7,

"name": "FarmCare Solutions",

"type\_of\_user": "service\_provider",

"total\_agreements": 1

},

{

"id": 3,

"name": "Rajesh Kulkarni",

"type\_of\_user": "farmer",

"total\_agreements": 1

}

]

1. **Fetch farmers or companies who have leased land but have never taken any services**

SELECT DISTINCT u.id, u.name

FROM users u

JOIN agreement a ON u.id = a.user\_id AND a.type = 'property'

WHERE u.id NOT IN (SELECT DISTINCT user\_id FROM agreement WHERE type = 'service');

**Output :**

[

{

"id": 3,

"name": "Rajesh Kulkarni"

},

{

"id": 6,

"name": "Mahindra Agri Ltd"

}

{

"id": 10,

"name": "Agroson LPP"

},

{

"id": 6,

"name": "Agrotech LTD"

}

]

1. **Fetch list of properties within specific days**

SELECT u.id, u.name, p.location, p.create\_date

FROM users u

JOIN property p ON u.id = p.farmer\_id

WHERE p.create\_date >= NOW() - INTERVAL '7 days';

**Output :**

[

{

"id": 1,

"name": "Rahul Sharma",

"location": "Solapur, Maharashtra",

"create\_date": "2025-03-04 00:23:33.412682"

},

{

"id": 3,

"name": "Rajesh Kulkarni",

"location": "Kolhapur, Maharashtra",

"create\_date": "2025-03-04 00:23:33.412682"

},

{

"id": 5,

"name": "Sneha Patil",

"location": "Nagpur, Maharashtra",

"create\_date": "2025-03-04 00:23:33.412682"

},

{

"id": 1,

"name": "Rahul Sharma",

"location": "Pune, Maharashtra",

"create\_date": "2025-03-04 00:23:33.412682"

},

{

"id": 3,

"name": "Rajesh Kulkarni",

"location": "Ahmednagar, Maharashtra",

"create\_date": "2025-03-04 00:23:33.412682"

},

{

"id": 5,

"name": "Sneha Patil",

"location": "Nashik, Maharashtra",

"create\_date": "2025-03-04 00:23:33.412682"

},

{

"id": 3,

"name": "Rajesh Kulkarni",

"location": "Satara, Maharashtra",

"create\_date": "2025-03-04 00:23:33.412682"

}

]

SELECT JSON\_AGG(ROW\_TO\_JSON(service)) AS services\_json FROM service;

11. fetch the records of user who