

DAY 1 -COUNTDOWN TO SQL MASTERY: 5-DAY CHALLENGE

PROJECT NAME-"SOFTWARE SOLUTIONS: PROJECT DELIVERY & REVENUE ANALYSIS."

Table 1-Projects

project_id	project_name	client_id	start_date	end_date	budget	actual_cost	status	project_manager_id	delivery_rating
301	AI-Powered CRM System	201	2023-01-10	2023-06-30	150000.00	145000.00	Completed	101	5
302	Telemedicine Platform	202	2023-03-01	2023-09-15	200000.00	210000.00	Completed	103	4
303	E-commerce Redesign	203	2023-04-20	2023-11-01	120000.00	118000.00	Completed	101	5
304	Investment Analytics Tool	204	2023-06-01	2024-01-31	180000.00	175000.00	Completed	103	5
305	Online Learning Module	205	2023-07-15	2024-03-10	90000.00	95000.00	Completed	106	3
306	Supply Chain Optimization	201	2023-09-01	NULL	160000.00	80000.00	In Progress	101	NULL
307	Patient Portal Upgrade	202	2023-10-10	2024-05-20	130000.00	135000.00	Completed	103	4
308	Personalized Marketing Engine	203	2023-11-05	NULL	110000.00	60000.00	In Progress	106	NULL
309	Fraud Detection System	204	2024-01-01	NULL	220000.00	100000.00	In Progress	101	NULL
310	Student Management System	205	2024-02-15	NULL	100000.00	40000.00	In Progress	103	NULL
311	Autonomous Driving Software	206	2023-08-01	2024-04-30	300000.00	310000.00	Completed	106	4
312	Farm Management App	207	2024-03-01	NULL	80000.00	20000.00	In Progress	101	NULL
313	Mobile Banking App	204	2022-05-01	2023-01-20	190000.00	195000.00	Completed	103	3
314	POS System Integration	203	2022-07-01	2023-02-28	95000.00	90000.00	Completed	101	5
315	Predictive Maintenance Softw...	206	2024-04-01	NULL	250000.00	50000.00	In Progress	106	NULL
NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL







Table 2-Employee

employee_id	first_name	last_name	role	hire_date
101	Alice	Johnson	Project Manager	2020-01-15
102	Bob	Williams	Sales Representative	2019-03-20
103	Carol	Davis	Project Manager	2021-06-10
104	David	Miller	Sales Representative	2020-11-01
105	Eve	Brown	Developer	2018-09-05
106	Frank	Taylor	Project Manager	2022-02-28
107	Grace	Moore	Sales Representative	2021-07-19
108	Henry	Jackson	Developer	2019-04-12

Table 3- Clients

Result Grid					Filter Rows:		Edit:
	client_id	client_name	industry	region			
▶	201	Global Innovations Inc.	Technology	North America			
	202	MediCare Solutions	Healthcare	Europe			
	203	RetailLink Corp.	Retail	North America			
	204	FinanceFlow Ltd.	Finance	Asia			
	205	EduTech Group	Education	Europe			
	206	AutoDrive Systems	Automotive	North America			
	207	GreenHarvest Foods	Agriculture	South America			

Table 4-Sales

Result Grid									 Filter Rows: <input type="text"/>	Edit: 			Export/Import: 
	sale_id	project_id	client_id	sale_date	revenue	deal_status	sales_rep_id						
▶	401	301	201	2022-12-15	150000.00	Won	102						
	402	302	202	2023-02-20	200000.00	Won	104						
	403	303	203	2023-03-25	120000.00	Won	102						
	404	304	204	2023-05-10	180000.00	Won	107						
	405	305	205	2023-06-30	90000.00	Won	104						
	406	306	201	2023-08-20	160000.00	Won	102						
	407	307	202	2023-09-01	130000.00	Won	107						
	408	308	203	2023-10-15	110000.00	Won	102						
	409	309	204	2023-12-20	220000.00	Won	104						
	410	310	205	2024-01-30	100000.00	Won	107						
	411	311	206	2023-07-25	300000.00	Won	104						
	412	312	207	2024-02-20	80000.00	Won	102						
	413	NULL	201	2024-03-10	50000.00	Pending	102						
	414	NULL	204	2024-04-05	75000.00	Lost	107						
	415	313	204	2022-04-15	190000.00	Won	107						
	416	314	203	2022-06-10	95000.00	Won	102						

SO LET'S START WITH BASIC COMMANDS FOR DATA EXPLORING WITH DIFFERENT FILTERS

1)For List of unique client Industries

```
4  -- List unique client industries:
5  SELECT * FROM Clients
6
7  -- Count active projects
8  SELECT COUNT(*) as In_Progress
9  FROM Projects
10 WHERE status = 'In Progress';
11
```

Result Grid

	client_id	client_name	industry	region
▶	201	Global Innovations Inc.	Technology	North America
	202	MediCare Solutions	Healthcare	Europe
	203	RetailLink Corp.	Retail	North America
	204	FinanceFlow Ltd.	Finance	Asia
	205	EduTech Group	Education	Europe
	206	AutoDrive Systems	Automotive	North America
	207	GreenHarvest Foods	Agriculture	South America
*	NULL	NULL	NULL	NULL

2)For counting Active projects

```
7  -- Count active projects
8  SELECT COUNT(*) as In_Progress
9  FROM Projects
10 WHERE status = 'In Progress';
11
```

Result Grid



	In_Progress
▶	6

3)For Find highly-rated projects

```

12  -- Find highly-rated projects
13  • SELECT project_name ,delivery_rating,client_id
14  FROM Projects
15  WHERE delivery_rating =5 or delivery_rating=4
16  ORDER BY delivery_rating desc;
17
18  -- Identify top-earning sales
19  • SELECT sale_id ,sale_date,revenue

```

Result Grid |  Filter Rows: | Export:  Wrap Cell Content: 


	project_name	delivery_rating	client_id
▶	AI-Powered CRM System	5	201
	E-commerce Redesign	5	203
	Investment Analytics Tool	5	204
	POS System Integration	5	203
	Telemedicine Platform	4	202
	Patient Portal Upgrade	4	202
	Autonomous Driving Software	4	206

4)For Identifying Top Earning sales

```

18  -- Identify top-earning sales
19  • SELECT sale_id ,sale_date,revenue
20  FROM Sales
21  ORDER BY revenue DESC

```

Result Grid |  Filter Rows:

	sale_id	sale_date	revenue
▶	411	2023-07-25	300000.00
	418	2024-03-15	250000.00
	409	2023-12-20	220000.00
	402	2023-02-20	200000.00
	415	2022-04-15	190000.00

5)Project which are completed in Quarter 1 of year 2024 i.e (January to March)

```
24      -- Projects completed in Quarter 1 of 2024
25 •    SELECT project_name ,end_date
26      FROM Projects
27      Where end_date>='2024-01-01' and end_date<='2024-03-31'
28
29
```

Result Grid			Filter Rows:	Export:	Wrap Cell Content:
	project_name	end_date			
•	Investment Analytics Tool	2024-01-31			
	Online Learning Module	2024-03-10			