

```

3 -- 1. For each department, calculate the average project_cost of its AI projects.
4
5 • SELECT d.department_name, AVG(p.project_cost) AS avg_project_cost
6 FROM dept_performance d
7 LEFT JOIN AI_Project_Master p
8 ON d.department_name = p.department
9 GROUP BY d.department_name;
10
11
12
13
14
```

Result Grid	
department_name	avg_project_cost
Marketing	104125.239999999
Sales	987728.82727263
Finance	101845.023999999
Operations	1006840.239999999
Supply Chain	965268.2396153852
Customer Success	879526.923666679
Legal	87526.923666679
Product	107939.998428571
HR	84079.171764058
R&D	109657.6311111115

```

14 -- 2. Show project_name, total revenue_generated, and total cost_savings.
15
16 • SELECT p.project_name,
17     SUM(i.revenue_generated) AS total_revenue_generated,
18     SUM(i.cost_savings) AS total_cost_savings
19 FROM AI_Project_Master p
20 LEFT JOIN AI_Revenue_Impact i
21 ON p.project_id = i.project_id
22 GROUP BY p.project_name;
23
24
25
26
```

Result Grid		
project_name	total_revenue_generated	total_cost_savings
Customer Churn Predictor	568260.929999999	367715.2
Sales Forecasting Engine	1038702.65	76402.700000001
AI Inventory Optimizer	692121.19	436637.55
Price Predictor	577458.98	879526.92
Document Automation AI	680935.26	568855.13
Marketing Lead Scoring Model	1305283.12	953129.98
AI Chat Support Assistant	626277.85	554755.420000001
Quality Inspection Vision Model	320435.57	484108.79
Energy Consumption Optimizer	0	164967.12
Financial Risk Detection System	791894.74	672125.61
Customer Experience Engine	78515.239999998	30079.79
Smart Pricing Recommendation...	499694.48	333923.81
Voice-to-Text Automation Tool	1027927.49	480075.09
AI Contract Review System	1012366.63	400372.1000000006
Image Recognition Safety Che...	564927.45	468142.9500000007
Loan Default Risk Scoring	369457.4100000003	343815.15
Predictive Supply Planner	942372.919999999	879523.31

```

27 -- 3 Show department_name and number of employees who completed training.
28
29 • SELECT d.department_name, COUNT(DISTINCT t.employee_id) AS trained_employees
30 FROM dept_performance d
31 LEFT JOIN AI_Skills_Training t
32 ON d.department_name = t.department
33 WHERE t.completion_status = 'Completed'
34 GROUP BY d.department_name;
35
36
37
38
39 -- 4 List employees, their department, and course_name for those who haven't completed training and their department has active AI projects.
```

Result Grid	
department_name	trained_employees
Customer Success	74
Finance	98
HR	83
Legal	70
Marketing	75
Operations	83
Product	75
R&D	95
Sales	86
Supply Chain	83

```

39 -- 4 List employees, their department, and course_name for those who haven't completed training and their department has active AI projects.
40
41 • SELECT t.employee_id, t.department, t.course_name, p.project_name
42 FROM AI_Skills_Training t
43 INNER JOIN AI_Project_Master p
44 ON t.department = p.department
45 WHERE t.completion_status != 'Completed'
46 AND p.project_status = 'Active';
47
48
49
50
51
```

Result Grid			
employee_id	department	course_name	project_name
012387	HR	Generative AI Fundamentals	Work Order Prioritization Engine
012387	HR	Generative AI Fundamentals	Stock-Out Prevention Engine
012387	HR	Generative AI Fundamentals	Customer Feedback Predictor
012387	HR	Generative AI Fundamentals	Loan Approval Recommendation Engine
012387	HR	Generative AI Fundamentals	Data Access Governance System
012387	HR	Generative AI Fundamentals	AI-Powered Project Management
012387	HR	Generative AI Fundamentals	Customer Perception Predictor
012387	HR	Generative AI Fundamentals	Network Latency Analyzer
012387	HR	Generative AI Fundamentals	Raw Material Cost Predictor
012387	Legal	AI-Driven Decision Making	Customer Loyalty Score Predictor
012387	Legal	AI-Driven Decision Making	Workforce Capacity Forecaster
012387	Legal	AI-Driven Decision Making	Merchant Risk Scoring
012387	Legal	AI-Driven Decision Making	Customer Perception Predictor
012387	Legal	AI-Driven Decision Making	Real-Time Anomaly Detector
012387	Legal	AI-Driven Decision Making	Loan Default Risk Scoring
012388	Customer ...	Speech Recognition with De...	Inventory Pick-Time Optimization

```

52    -- 5 Show project_name, project_cost, revenue_generated, cost_savings.
53
54 • SELECT p.project_name, p.project_cost, SUM(l.revenue_generated) AS total_revenue_generated, SUM(l.cost_savings) AS total_cost_savings
55   FROM AI_Project_Master p
56   LEFT JOIN AI_Revenue_Impact l
57     ON p.project_id = l.project_id
58   GROUP BY p.project_name, p.project_cost;
59
60
61    -- 6. For each project, show project_name and total usage_count.
62
63

```

Result Grid	Filter Rows	Export	Wrap Cell Content
project_name	project_cost	total_revenue_generated	total_cost_savings
Customer Churn Predictor	50485.87	564265.9299999999	347715.2
Sales Forecasting Engine	82629.3	1038702.65	754025.9700000001
AI Inventory Optimizer	41296.15	49402.15	40000.0
Fraud Risk Classifier	1742124.44	371326.98	67145.02
Document Automation AI	1915281.88	689535.26	56885.13
Marketing Lead Scoring Model	701032.33	1305283.12	95319.98
AI Contract Review System	100000.0	100000.0	50000.0000000001
Quality Inspection Vision Model	157719.19	330453.57	49438.79
Energy Consumption Optimizer	77249.33	0	164961.12
Financial Risk Detection System	45629.36	45629.36	672125.81
Customer Support Assistant	1287798.96	207815.6399999999	106271.79
Smart Pricing Recommendation...	1287798.52	499694.48	33923.81
Voice-to-Text Automation Tool	130757.14	1027927.49	40075.09
AI Image Recognition Safety Che...	100000.0	100000.0	50000.0000000001
Image Recognition Safety Che...	802351.16	564627.45	468140.9500000007
Loan Default Risk Scoring	1087175.03	369457.4100000001	348315.15
Predictive Supply Planner	1994250.04	942372.9199999999	87923.31

```

61
62    -- 6. For each project, show project_name and total usage_count.
63
64 • SELECT p.project_name, SUM(u.usage_count) AS total_usage
65   FROM AI_Project_Master p
66   LEFT JOIN AI_Usage_Telemetry u
67     ON p.project_id = u.project_id
68   GROUP BY p.project_name;
69
70

```

Result Grid	Filter Rows	Export	Wrap Cell Content
project_name		total_usage	
Customer Churn Predictor	98367		
Sales Forecasting Engine	79942		
AI Inventory Optimizer	87656		
Fraud Risk Classifier	61944		
Document Automation AI	82296		
Marketing Lead Scoring Model	109953		
AI Customer Support Assistant	126964		
Quality Inspection Vision Model	122121		
Energy Consumption Optimizer	81189		
Financial Risk Detection System	65214		
Customer Sentiment Analyzer	132716		
Smart Pricing Recommendation...	85698		
Voice-to-Text Automation Tool	64142		
AI Contract Review System	85724		
Image Recognition Safety Che...	109827		
Loan Default Risk Scoring	86635		
Predictive Supply Planner	57010		

```

71    -- 7. Identify the top 3 AI projects by total revenue_generated.
72
73 • SELECT p.project_name, SUM(l.revenue_generated) AS total_revenue
74   FROM AI_Project_Master p
75   LEFT JOIN AI_Revenue_Impact l
76     ON p.project_id = l.project_id
77   GROUP BY p.project_name
78   ORDER BY total_revenue DESC
79   LIMIT 3;
80
81
81    -- 8. Show employees who trained and the projects in their department.

```

Result Grid	Filter Rows	Export	Wrap Cell Content	Fetch rows:
project_name		total_revenue		
Inventory Replenishment Predictor	246026.2			
Cloud Migration Initiative	1932884.36			
Data Quality Monitoring System	1796441.82			

```

81
81    -- 8. Show employees who trained and the projects in their department.
82
83 • SELECT t.employee_id, t.department, t.course_name, p.project_name
84   FROM AI_Skills_Training t
85   LEFT JOIN AI_Project_Master p
86     ON t.department = p.department;
87
88

```

Result Grid	Filter Rows	Export	Wrap Cell Content	Fetch rows:
employee_id	department	course_name	p.project_name	
E02787	HR	Generative AI Fundamentals	Predictive AI Branch Detection	
E02787	HR	Generative AI Fundamentals	Predictive Inventory Shrinkage	
E02787	HR	Generative AI Fundamentals	Work Order Prioritization Engine	
E02787	HR	Generative AI Fundamentals	Stock-Out Prevention Engine	
E02787	HR	Generative AI Fundamentals	Patient No-Show Prediction	
E02787	HR	Generative AI Fundamentals	Patient Queue Engine	
E02787	HR	Generative AI Fundamentals	AI Translation Support Engine	
E02787	HR	Generative AI Fundamentals	AI Loan Approval Recommendation Engine	
E02787	HR	Generative AI Fundamentals	Data Access Governance System	
E02787	HR	Generative AI Fundamentals	AI Train Simulation Project	
E02787	HR	Generative AI Fundamentals	AI Knowledge Base Assistant	
E02787	HR	Generative AI Fundamentals	Invoice Fraud Detection Engine	
E02787	HR	Generative AI Fundamentals	Customer Feedback Classifier	
E02787	HR	Generative AI Fundamentals	AI Email Classification Engine	
E02787	HR	Generative AI Fundamentals	Webpage DR Behavior Analyzer	
E02787	HR	Generative AI Fundamentals	Wastewater Expression Verification	
E02787	HR	Generative AI Fundamentals	Network Latency Analyzer	

Result 28 ×

Output

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97
98    -- 9 . Show revenue generated per region with project name.
99
100   • SELECT i.region, p.project_name, SUM(i.revenue_generated) AS total_revenue
101   FROM AI_Revenue_Impact i
102   LEFT JOIN AI_Project_Master p
103     ON i.project_id = p.project_id
104   GROUP BY i.region, p.project_name;
105
106
107

```

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

region	project_name	total_revenue
APAC	IoT Fleet Monitoring	0
AMER	Digital Invoice Processing System	96081.5
APAC	AI Product Recommendation Engine	213223.4000000002
LATAM	Automated Onboarding Assistant	90524.44
APAC	AI Voice Analytics Engine	85845.4099999999
LATAM	Invoice Fraud Detection Engine	166036.1399999998
AMER	AI-Based Hiring Screener	214223.6699999998
LATAM	Network Latency Analyzer	549405.99
APAC	Employee Productivity Tracker	824289.81
LATAM	Operational Efficiency Analyzer	313228.3199999995
EMEA	Data Quality Monitoring System	444388.31
APAC	Smart Inventory Reconciliation	193865.35
AMER	Stock-Out Prevention Engine	245862.9
LATAM	Predictive SLA Breach Detection	448199.6000000003
APAC	AI-Based Hiring Screener	73918.17
AMER	Customer Creditworthiness Estimator	104958.12
APAC	Customer Repeat Purchase Predictor	21239.26

Result 29 | Output:

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-- 
98
99    -- 10. Show total usage_count per month across all projects.
100
101   • SELECT DATE_FORMAT(u.usage_date, 'Y-Y') AS month, SUM(u.usage_count) AS total_usage
102   FROM AI_Usage_Telemetry u
103   GROUP BY month
104   ORDER BY month;
105

```

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

month	total_usage
2020-01	258892
2020-02	238160
2020-03	23059
2020-04	221693
2020-05	292409
2020-06	268384
2020-07	281142
2020-08	260675
2020-09	238405
2020-10	261381
2020-11	23050
2020-12	236895
2021-01	232905
2021-02	251602
2021-03	30018
2021-04	227287
2021-05	320282