Sales Leadership

Database

Project Deliverable 3

Sales Leadership Database – Purpose: Sales rep effectiveness and mentorship

- Data Management Problems

In today's data-driven world, the real challenge isn't having too little information — it's knowing how to use the data in a meaningful way. New sales leaders are often expected to manage teams they didn't hire, with little to no context on each rep's past performance or development history. While some reps may consistently meet goals, others need targeted coaching to improve — and replacing a rep can take over a year to see ROI. That's why retaining and developing existing talent is so important.

This database is designed to help new sales leaders make better, faster decisions by giving them access to key information like performance trends, coaching sessions, mentorship assignments, and sales outcomes — all in one place. With everything organized and easy to query, leaders can quickly identify where to focus their time and how to support their team more effectively from the start.

Motivation

The motivation for this database design is to equip new sales leaders with timely, centralized access to critical performance and coaching data that often exists elsewhere in disparate systems or larger data warehouses. In most cases, sales leaders are expected to deliver immediate results without the benefit of a ramp-up period. Unlike sales reps, they are held accountable from day one. This design supports faster, data-informed decision-making by consolidating key insights into a structured and accessible format, enabling leaders to identify trends, provide targeted coaching, and improve team performance more efficiently.

Potential benefits & users

This database offers several key benefits for sales leadership, including real-time visibility into rep performance, improved quota attainment, more consistent coaching practices, and ultimately, better rep retention and growth. It supports scalable strategies

that help individual contributors succeed while giving leaders the insights they need to make data-driven decisions.

Beyond sales leadership, the database can be valuable to other teams as well. Once a proven coaching and performance model is established, Sales Enablement can use it to train new teams, Human Resources can use the data to support hiring and development decisions, and Revenue Operations can apply it to optimize processes like sales planning and territory assignments.

Business Rules

A **Sales Rep** is a core member of the sales team. Attributes include: rep_id (identifier), first_name, last_name, email, hire_date, territory_id (FK), leader_id (FK), mentor_id (FK), and mentor. Each Sales Rep must be assigned to one **Sales Leader** and one **Territory**. A Sales Rep may also be mentored by another Sales Rep through the **Mentor** entity. A mentor may be assigned to multiple Sales Reps, but each mentoring record connects to only one mentor.

Sales Reps are evaluated through **Performance Reviews**. Each review must be tied to one Sales Rep and one Sales Leader. Attributes of Performance_Review include: review_id (identifier), review_date, type, rep_id (FK), and leader_id (FK).

There are two **overlapping subtypes** of Performance Review: Sales_Review and Rep_Review. A single Performance_Review **can belong to one, both, or neither** of these subtypes:

- Sales_Review includes quota_attainment_pct and no_deals_closed.
- Rep Review includes rating and notes.

Sales Reps also participate in **Coaching Sessions** conducted by Sales Leaders. Each Coaching Session must involve one Sales Leader, one Sales Rep, and one Training Module. Coaching_Session attributes include: session_id (identifier), session_date, duration_minutes, focus_area, rep_id (FK), leader_id (FK), and module_id (FK). Each Sales Rep and Leader may participate in multiple Coaching Sessions.

Training Modules are used during Coaching Sessions and include: module_id (identifier), title, topic, and duration_minutes. A module may be used in multiple Coaching Sessions but must be associated with at least one when applied.

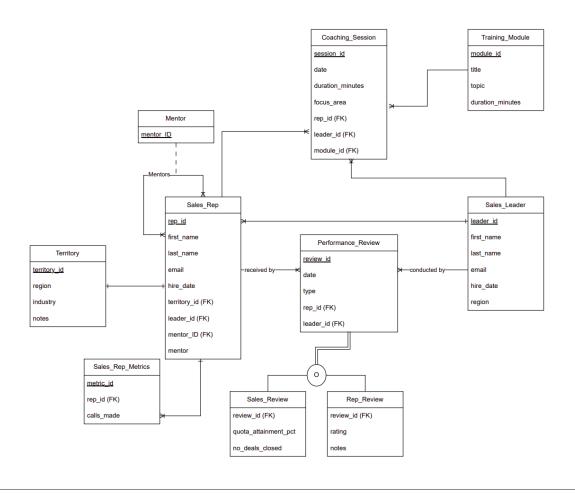
Sales performance is also tracked in the **Sales_Rep_Metrics** entity, which includes: metric_id (identifier), rep_id (FK), metric_date, and calls_made. Each Sales Rep may have multiple performance entries over time, but each metric record must be linked to one Sales Rep.

A **Sales Leader** is responsible for managing at least one Sales Rep. Attributes include: leader_id (identifier), first_name, last_name, email, hire_date, and region. Sales Leaders conduct Coaching Sessions and Performance Reviews.

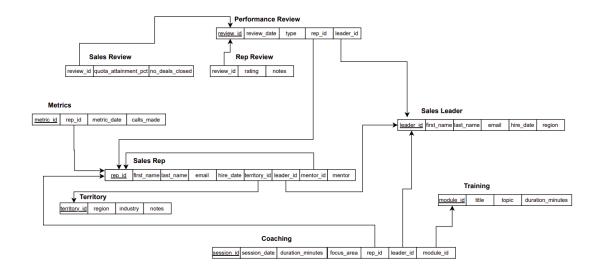
Territories define sales coverage and include: territory_id (identifier), region, industry, and notes. Each Territory must be assigned to at least one Sales Rep. A Sales Leader may oversee multiple Territories indirectly through their assigned reps.

Mentors are modeled as a separate entity and include: mentor_id (identifier), and a related rep_id (FK) that links to the Sales Rep acting as the mentor. A mentor may guide multiple reps, but each entry references one mentor.

EERD



Third Normal Form



```
1 ● ○ CREATE TABLE Coaching_Session (

session_id INT AUTO_INCREMENT,

session_date DATE NOT NULL,

duration_minutes INT,

focus_area VARCHAR(100),

rep_id INT,

leader_id INT,

module_id INT,

CONSTRAINT Coaching_Session_PK PRIMARY KEY (session_id),

CONSTRAINT Coaching_Session_FK_Rep FOREIGN KEY (rep_id) REFERENCES Sales_Rep(rep_id),

CONSTRAINT Coaching_Session_FK_Leader FOREIGN KEY (leader_id) REFERENCES Sales_Leader(leader_id),

CONSTRAINT Coaching_Session_FK_Module FOREIGN KEY (module_id) REFERENCES Training_Module(module_id)

PENGINE=InnoDB;
```

```
INSERT INTO Territory (territory_id, region, industry, notes) VALUES
(1, 'West', 'Higher Education', 'Focus on community colleges'),
(2, 'East', 'Healthcare', 'Emerging sales vertical'),
(3, 'Central', 'Financial Services', 'Focus on large banks and fintechs'),
(4, 'South', 'Technology', 'Targeting SaaS and IT services'),
(5, 'Midwest', 'Government', 'Includes public sector and defense accounts');

INSERT INTO Sales Leader (leader id, first name, last name, email, hire date, region) VALUES
```

```
INSERT INTO Sales_Leader (leader_id, first_name, last_name, email, hire_date, region) VALUES

(1, 'Alex', 'Gomez', 'agomez@company.com', '2021-02-15', 'West, Central, Midwest'),

(2, 'Taylor', 'Nguyen', 'tnguyen@company.com', '2020-11-01', 'East, South');
```

```
1 • INSERT INTO Mentor (mentor_id, rep_id) VALUES
2 (1, 1),
3 (2, 2);
```

```
1 INSERT INTO Training_Module (module_id, title, topic, duration_minutes) VALUES
2 (1, 'Effective Cold Calling', 'Prospecting', 60),
3 (2, 'Pipeline Management', 'CRM Optimization', 45);
```

```
INSERT INTO Coaching_Session (session_id, session_date, duration_minutes, focus_area, rep_id, leader_id, module_id) VALUES
(1, '2024-03-01', 30, 'Objection Handling', 1, 1, 1),
(2, '2024-03-02', 45, 'CRM Training', 2, 1, 2),
(3, '2024-04-02', 40, 'Discovery Call Techniques', 3, 1, 1),
(4, '2024-04-03', 35, 'Overcoming Objections', 4, 2, 2),
(5, '2024-04-03', 30, 'Demo Best Practices', 5, 1, 1);
```

```
INSERT INTO Performance_Review (review_id, review_date, type, rep_id, leader_id) VALUES

(1, '2024-03-10', 'In Person', 1, 1),

(2, '2024-03-15', 'Virtual', 2, 2),

(3, '2024-04-05', 'In Person', 3, 1),

(4, '2024-04-06', 'Virtual', 4, 2),

(5, '2024-04-06', 'In Person', 5, 1);
```

```
INSERT INTO Sales_Review (review_id, quota_attainment_pct, no_deals_closed) VALUES
(1, 87.50, 12),
(2, 92.00, 15),
(3, 85.00, 10),
(4, 88.50, 11),
(5, 91.00, 13);
```

```
INSERT INTO Rep_Review (review_id, rating, notes) VALUES
(1, 4, 'Shows strong initiative but needs follow-up improvement.'),
(2, 5, 'Consistently exceeds expectations.'),
(3, 4, 'Solid effort - improving pipeline management.'),
(4, 5, 'Very coachable and highly proactive.'),
(5, 5, 'Top performer this cycle - great momentum.');
```

```
INSERT INTO Sales_Rep_Metrics (metric_id, rep_id, metric_date, calls_made) VALUES
(1, 1, '2024-03-01', 35),
(2, 1, '2024-03-02', 28),
(3, 2, '2024-03-01', 42),
(4, 3, '2024-04-01', 38),
(5, 4, '2024-04-01', 41),
(6, 5, '2024-04-01', 36);
```

Table Records - SELECT * and DESC Statements

Territory

	territory_id	region	industry	notes	
	1	West	Higher Education	Focus on community colleges	
	2	East	Healthcare	Emerging sales vertical	
	3	Central	Financial Services	Focus on large banks and fintechs	
	4	South	Technology	Targeting SaaS and IT services	
	5	Midwest	Government	Includes public sector and defense accounts	
	NULL	NULL	NULL	NOLL	

DESC

Field	Туре	Null	Key	Default	Extra
territory_id	int	NO	PRI	NULL	auto_increment
region	varchar(50)	YES		NULL	
industry	varchar(100)	YES		NULL	
notes	text	YES		NULL	

Sales_Leader

- Select *

	leader_id	first_name	last_name	email	hire_date	region
	1	Alex	Gomez	agomez@company.com	2021-02-15	West, Central, Midwest
	2	Taylor	Nguyen	tnguyen@company.com	2020-11-01	East, South
	NULL	NULL	NULL	NULL	NULL	HULL

- DESC

Field	Туре	Null	Key	Default	Extra
leader_id	int	NO	PRI	NULL	auto_increment
first_name	varchar(50)	NO		NULL	
last_name	varchar(50)	NO		NULL	
email	varchar(100)	NO	UNI	NULL	
hire_date	date	NO		NULL	
region	varchar(100)	YES		NULL	

Mentor

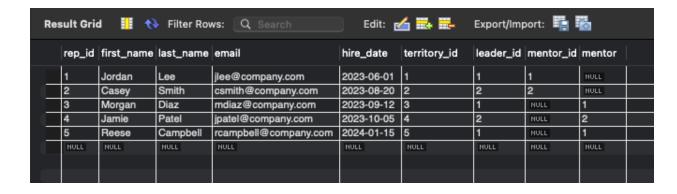
- Select *



- DESC

Field	Туре	Null	Key	Default	Extra
mentor_id	int	NO	PRI	NULL	auto_increment
rep_id	int	YES		NULL	

Sales_Rep



- DESC

Fie	eld	Туре	Null	Key	Default	Extra	
rep	_id	int	NO	PRI	NULL	auto_increment	
firs	t_name	varchar(50)	YES		NULL		Γ
las	t_name	varchar(50)	YES		NULL		
em	nail	varchar(100)	YES		NULL		
hire	e_date	date	YES		NULL		
ten	ritory_id	int	YES	MUL	NULL		Γ
lea	der_id	int	YES	MUL	NULL		Γ
me	ntor_id	int	YES	MUL	NULL		Γ
me	entor	int	YES		NULL		Γ

Training_Module

	module_id	title	topic	duration_minutes	
		Effective Cold Calling		60	
	2	Pipeline Management	CRM Optimization	45	
	NULL	NULL	NULL	NULL	

- DESC

Field	Туре	Null	Key	Default	Extra	
module_id	int	NO	PRI	NULL	auto_increment	
title	varchar(100)	YES		NULL	100	
topic	varchar(100)	YES		NULL		
duration_minutes	int	YES		NULL		

Coaching_Session

- Select *

5	session_id	session_date	duration_minutes	focus_area	rep_id	leader_id	module_id	
	1	2024-03-01	30	Objection Handling	1	1	1	
2	2	2024-03-02	45	CRM Training	2	2	2	Г
3	3	2024-04-02	40	Discovery Call Techniques	3	1	1	Г
4	4	2024-04-03	35	Overcoming Objections	4	2	2	Г
ŧ	5	2024-04-03	30	Demo Best Practices	5	1	1	Г
	NULL	NULL	NULL	NULL	NULL	NULL	NULL	Г

- DESC

Field	Туре	Null	Key	Default	Extra	
session_id	int	NO	PRI	NULL	auto_increment	
session_date	date	NO		NULL		
duration_minutes	int	YES		NULL		
focus_area	varchar(100)	YES		NULL		
rep_id	int	YES	MUL	NULL		
leader_id	int	YES	MUL	NULL		
module_id	int	YES	MUL	NULL		

Performance_Review

- Select *

	review_id	review_date	type	rep_id	leader_id	
	1	2024-03-10	In Person	1	1	
	2	2024-03-15	Virtual	2	2	
	3	2024-04-05	In Person	3	1	
	4	2024-04-06	Virtual	4	2	
	5	2024-04-06	In Person	5	1	
C	NULL	NULL	NULL	NULL	NULL	

- DESC

Field	Туре	Null	Key	Default	Extra
review_id	int	NO	PRI	NULL	auto_increment
review_date	date	YES		NULL	
type	varchar(50)	YES		NULL	
rep_id	int	YES	MUL	NULL	
leader_id	int	YES	MUL	NULL	

Sales_Review

review_id	quota_attainment_pct	no_deals_closed	
1	87.50	12	
2	92.00	15	
3	85.00	10	
4	88.50	11	
5	91.00	13	
NULL	NULL	NULL	

- DESC

Field	Туре	Null	Key	Default	Extra	
review_id	int	NO	PRI	NULL		
quota_attainment_pct	decimal(5,2)	YES		NULL		
no_deals_closed	int	YES		NULL		

Rep_Review

- Select *

review_id	rating	notes	
1	4	Shows strong initiative but needs follow-up impr	
2	5	Consistently exceeds expectations.	
3	4	Solid effort — improving pipeline management.	
4	5	Very coachable and highly proactive.	
5	5	Top performer this cycle — great momentum.	
NULL	NULL	NULL	

- DESC

Field	Туре	Null	Key	Default	Extra	
review_id	int	NO	PRI	NULL		
rating	int	YES		NULL		
notes	text	YES		NULL		
TIOLES	IGAL	TES		HOLL		

Sales_Rep_Metrics

- Select *

metric_id	rep_id	metric_date	calls_made	
1	1	2024-03-01	35	
2	1	2024-03-02	28	
3	2	2024-03-01	42	
4	3	2024-04-01	38	
5	4	2024-04-01	41	
6	5	2024-04-01	36	
NULL	NULL	NULL	NULL	

- DESC

Field	Туре	Null	Key	Default	Extra	
metric_id	int	NO	PRI	NULL	auto_increment	
rep_id	int	YES	MUL	NULL		
metric_date	date	YES		NULL		
calls_made	int	YES		NULL		

Section 7

(10) SQL Query Statements and Screenshots

Coaching sessions with rep and leader names

```
SELECT
             Coaching_Session.session_date,
             Coaching_Session.focus_area,
             Sales_Rep.first_name AS rep_first,
             Sales_Rep.last_name AS rep_last,
             Sales_Leader.first_name AS leader_first,
             Sales_Leader.last_name AS leader_last
        FROM Coaching_Session
        JOIN Sales_Rep ON Coaching_Session.rep_id = Sales_Rep.rep_id
        JOIN Sales_Leader ON Coaching_Session.leader_id = Sales_Leader.leader_id
        ORDER BY Coaching_Session.session_date DESC;
00%
      45:11
                                                Export:
           Filter Rows: Q Search
Result Grid
   session_date focus_area
                                 rep_first rep_last leader_first leader_last
   2024-04-03 Demo Best Practices
                                 Reese Campbell Alex
                                                         Gomez
  2024-04-03 Overcoming Objections
                                 Jamie Patel
                                                Taylor
                                                         Nguyen
   2024-04-02 Discovery Call Techniques Morgan Diaz
                                                Alex
                                                         Gomez
   2024-03-02
             CRM Training
                                 Casey
                                                         Nguyen
                                       Smith
                                                Taylor
   2024-03-01
             Objection Handling
                                 Jordan
                                                Alex
```

List all reps and their assigned territories

```
SELECT
              Sales_Rep.first_name,
              Sales_Rep.last_name,
              Territory.region,
              Territory.industry
         FROM Sales_Rep
         JOIN Territory ON Sales_Rep.territory_id = Territory.territory_id
         ORDER BY Territory.region;
100%
       $
           27:8
                                                   Export:
            Filter Rows: Q Search
 Result Grid
   first_name last_name region
                             industry
    Morgan
             Diaz
                      Central
                             Financial Services
    Casey
             Smith
                     East
                             Healthcare
             Campbell
                     Midwest
   Reese
                             Government
                             Technology
             Patel
                     South
    Jamie
    Jordan
             Lee
                     West
                             Higher Education
```

```
SELECT
             first_name,
             last_name,
             hire_date
         FROM Sales_Rep
         WHERE hire_date > '2023-07-01'
         ORDER BY hire_date DESC;
100%
       $ 25:7
                                                  Export:
Result Grid
            Filter Rows: Q Search
   first_name last_name hire_date
   Reese
            Campbell
                    2024-01-15
            Patel
   Jamie
                     2023-10-05
                     2023-09-12
   Morgan
            Diaz
                     2023-08-20
   Casey
            Smith
```

```
SELECT
             Sales_Rep.first_name,
             Sales_Rep.last_name,
             SUM(Coaching_Session.duration_minutes) AS total_minutes_coached
        FROM Sales_Rep
        JOIN Coaching_Session ON Sales_Rep.rep_id = Coaching_Session.rep_id
        GROUP BY Sales_Rep.rep_id
        ORDER BY total_minutes_coached DESC;
100%
      $ 37:8
                                                Export:
Result Grid
           Filter Rows: Q Search
   first_name last_name total_minutes_coach...
   Casey
            Smith
                    45
            Diaz
                    40
   Morgan
            Patel
                    35
   Jamie
   Jordan
            Lee
                    30
   Reese
            Campbell
                    30
```

```
SELECT
            Territory.region,
            AVG(Sales_Review.quota_attainment_pct) AS avg_quota
        FROM Sales_Review
        JOIN Performance_Review ON Sales_Review.review_id = Performance_Review.review_id
        JOIN Sales_Rep ON Performance_Review.rep_id = Sales_Rep.rep_id
        JOIN Territory ON Sales_Rep.territory_id = Territory.territory_id
        GROUP BY Territory.region
        ORDER BY avg_quota DESC;
100%
         25:9
                                           Export:
region avg_quota
   East
         92.000000
   Midwest 91.000000
   South
         88.500000
   West
         87.500000
   Central
         85.000000
```

Show all rep reviews with ratings below 5

```
SELECT
             Sales_Rep.first_name,
             Sales_Rep.last_name,
             Rep_Review.rating,
             Rep_Review.notes
         FROM Rep_Review
         JOIN Performance_Review ON Rep_Review.review_id = Performance_Review.review_id
         JOIN Sales_Rep ON Performance_Review.rep_id = Sales_Rep.rep_id
         WHERE Rep_Review.rating < 5;
100%
           29:9
                                                 Export:
Result Grid ## Tilter Rows: Q Search
   first_name last_name rating notes
                          Shows strong initiative but needs follow-up impr...
            Diaz
                          Solid effort - improving pipeline management.
   Morgan
```

Average number of calls made per rep

```
SELECT
             Sales_Rep.rep_id,
             Sales_Rep.first_name,
             Sales_Rep.last_name,
             AVG(Sales_Rep_Metrics.calls_made) AS avg_calls
        FROM Sales_Rep
        JOIN Sales_Rep_Metrics ON Sales_Rep.rep_id = Sales_Rep_Metrics.rep_id
        GROUP BY Sales_Rep.rep_id, Sales_Rep.first_name, Sales_Rep.last_name;
      $ 70:8
                                                Export:
Result Grid
           Filter Rows: Q Search
   rep_id first_name last_name avg_calls
                         31.5000
        Jordan
                 Lee
        Casey
                 Smith
                         42.0000
  2
                 Diaz
                         38.0000
        Morgan
  3
        Jamie
                         41.0000
                 Patel
        Reese
                         36.0000
                 Campbell
```

```
SELECT
             Sales_Rep.first_name,
             Sales_Rep.last_name,
             Performance_Review.review_date,
             Sales_Review.quota_attainment_pct,
             Sales_Review.no_deals_closed
         FROM Sales_Rep
         JOIN Performance_Review ON Sales_Rep.rep_id = Performance_Review.rep_id
         JOIN Sales_Review ON Performance_Review.review_id = Sales_Review.review_id
         ORDER BY Sales_Review.quota_attainment_pct DESC;
100%
          49:10
           Filter Rows: Q Search
                                                 Export:
Result Grid
   first_name last_name review_date quota_attainment_... no_deals_closed
           Smith
                    2024-03-15 92.00
                                               15
   Casey
                    2024-04-06 91.00
   Reese
            Campbell
                                               13
   Jamie
           Patel
                    2024-04-06 88.50
                                               11
   Jordan
            Lee
                    2024-03-10
                              87.50
                                               12
   Morgan
            Diaz
                    2024-04-05
                                               10
                              85.00
```

```
SELECT
            Sales_Leader.first_name,
            Sales_Leader.last_name,
            COUNT(Sales_Rep.rep_id) AS num_reps
        FROM Sales_Leader
        JOIN Sales_Rep ON Sales_Leader.leader_id = Sales_Rep.leader_id
        GROUP BY Sales_Leader.first_name, Sales_Leader.last_name;
00%
      $ 58:7
                                              Export:
Result Grid
           Filter Rows: Q Search
   first_name last_name num_reps
   Alex
           Gomez
   Taylor
           Nguyen
                   2
```

