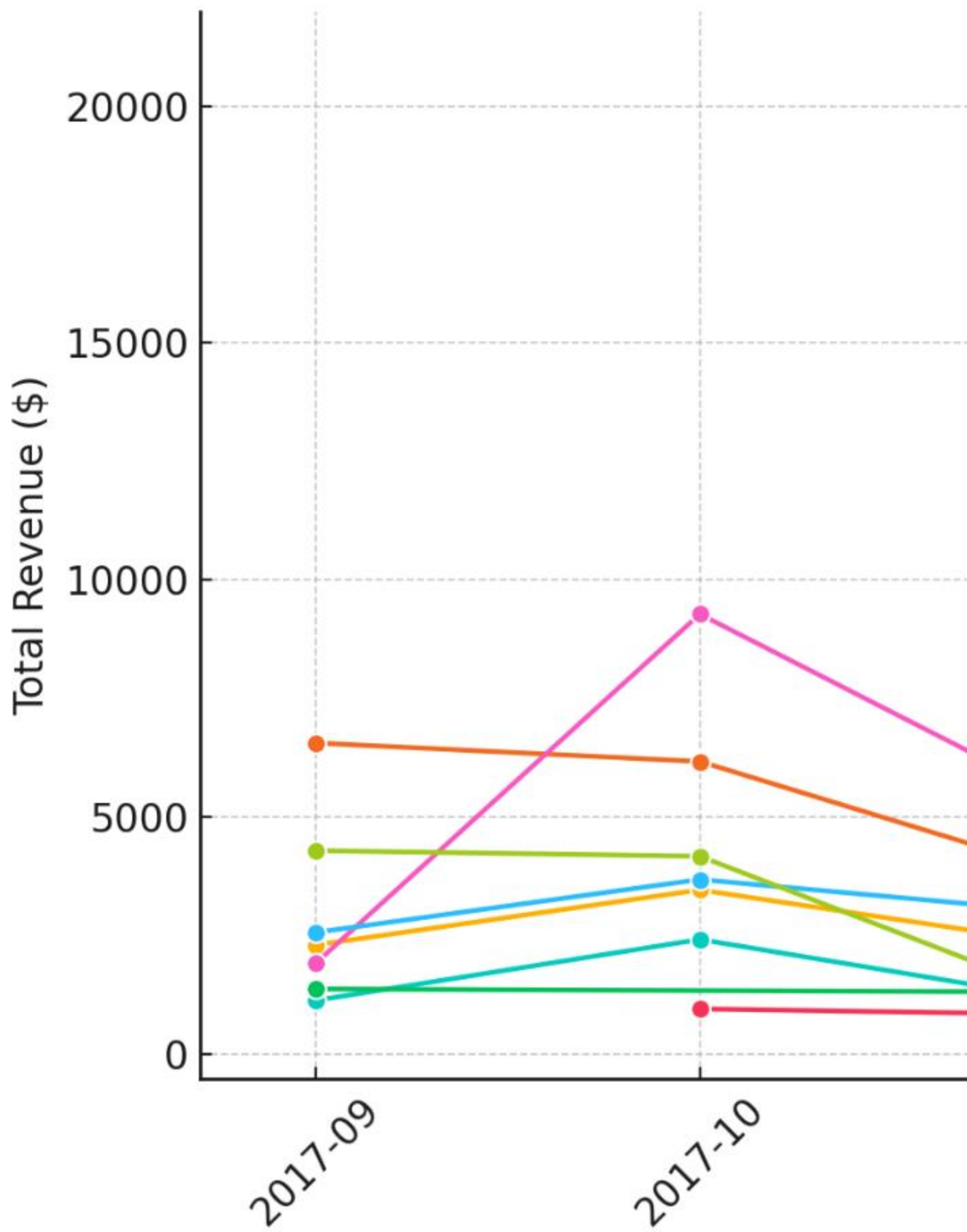


Operational Efficiency

Agent Productivity

```
SELECT
  a.agentid,
  CONCAT(a.agtfirstname, ' ', a.agtlastname) AS agent_name,
  m.monthyear,
  COUNT(e.engagementnumber) AS total_bookings,
  ROUND(SUM(e.contractprice), 2) AS total_revenue,
  ROUND(AVG(e.contractprice), 2) AS avg_deal_size
FROM engagements e
JOIN agents a ON e.agentid = a.agentid
JOIN ztblMonths m ON e.startdate BETWEEN m.monthstart AND
m.monthend
WHERE e.startdate IS NOT NULL
GROUP BY a.agentid, agent_name, m.monthyear
ORDER BY agent_name, m.monthyear;
```

	123 agentid ▼	A-Z agent_name ▼	A-Z monthyear ▼
1	7	Caleb Viescas	December
2	7	Caleb Viescas	February 2
3	7	Caleb Viescas	January 20
4	7	Caleb Viescas	October 20
5	7	Caleb Viescas	September
6	3	Carol Viescas	December
7	3	Carol Viescas	February 2



Entertainer Utilization

```
SELECT
ROUND(
  AVG(
    ((enddate - startdate) + 1) *
    CASE
      WHEN e.stoptime >= e.starttime THEN
        EXTRACT(EPOCH FROM (e.stoptime - e.starttime)) / 3600.0
      ELSE
        EXTRACT(EPOCH FROM (TIME '24:00:00' - e.starttime +
e.stoptime)) / 3600.0
    END
  ),
2) AS avg_engagement_hours
FROM engagements e
WHERE startdate IS NOT NULL AND enddate IS NOT NULL
AND starttime IS NOT NULL AND stoptime IS NOT NULL
AND enddate >= startdate;
```

This is the avg duration of each engagement


	123 avg_engagement_hours
1	23.83

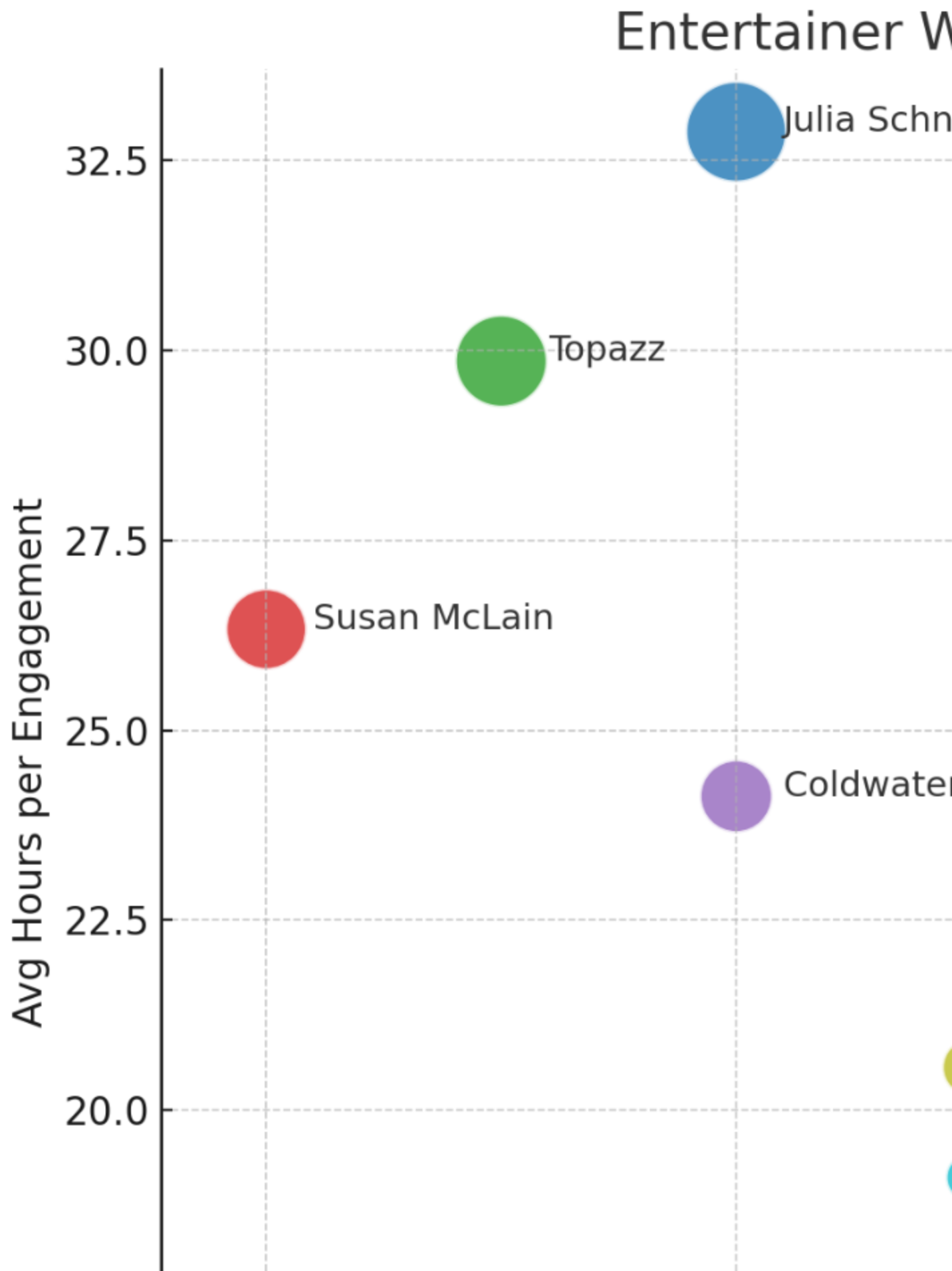
```
WITH engagement_durations AS (
  SELECT
    e.engagementnumber,
    e.entertainerid,
```

```

((e.enddate - e.startdate) + 1) AS num_days,
CASE
  WHEN e.stoptime >= e.starttime THEN
    EXTRACT(EPOCH FROM (e.stoptime - e.starttime)) / 3600.0
  ELSE
    EXTRACT(EPOCH FROM (TIME '24:00:00' - e.starttime +
e.stoptime)) / 3600.0
  END AS hours_per_day
FROM engagements e
WHERE e.startdate IS NOT NULL AND e.enddate IS NOT
NULL
  AND e.starttime IS NOT NULL AND e.stoptime IS NOT NULL
  AND e.enddate >= e.startdate
)
SELECT
ent.entertainerid,
ent.entstagename,
COUNT(ed.engagementnumber) AS total_engagements,
ROUND(AVG(ed.num_days * ed.hours_per_day), 2) AS
avg_hours_per_engagement
FROM entertainers ent
LEFT JOIN engagement_durations ed ON ent.entertainerid =
ed.entertainerid
GROUP BY ent.entertainerid, ent.entstagename
HAVING ROUND(AVG(ed.num_days * ed.hours_per_day), 2) is
not NULL
ORDER BY avg_hours_per_engagement DESC;

```

 123 entertainerid ▼	A-Z entstagename ▼
1	1,011 Julia Schnebly
2	1,008 Country Feeling
3	1,002 Topazz
4	1,012 Susan McLain
5	1,007 Coldwater Cattle Company
6	1,006 Modern Dance
7	1,013 Caroline Coie Cuartet
8	1,001 Carol Peacock Trio



Understanding Supply & Demand - Entertainers vs. Customers

```
SELECT
  m.monthyear,
  ms.stylename,
  COUNT(mp.customerid) AS preference count
FROM musical_preferences mp
JOIN musical_styles ms ON mp.styleid = ms.styleid
JOIN customers c ON mp.customerid = c.customerid
JOIN engagements e ON c.customerid = e.customerid
JOIN ztblMonths m ON e.startdate BETWEEN m.monthstart AND
m.monthend
GROUP BY m.monthyear, ms.stylename
ORDER BY m.monthyear, ms.stylename;
```

	A-Z monthyear ▼	A-Z stylename ▼	123 preference count
1	December 2017	40's Ballroom Music	
2	December 2017	60's Music	
3	December 2017	70's Music	
4	December 2017	80's Music	
5	December 2017	Chamber Music	
6	December 2017	Classic Rock & Roll	
7	December 2017	Classical	
8	December 2017	Contemporary	

```
SELECT
```



```

m.monthyear,
ms.stylename,
COUNT(DISTINCT e.engagementnumber) AS num_engagements
FROM engagements e
JOIN entertainer_styles es ON e.entertainerid = es.entertainerid
JOIN musical_styles ms ON es.styleid = ms.styleid
JOIN ztblMonths m ON e.startdate BETWEEN m.monthstart AND
m.monthend
GROUP BY m.monthyear, ms.stylename
ORDER BY m.monthyear, ms.stylename;

```

	A-Z monthyear ▼	A-Z stylename ▼	123 num_e
1	December 2017	60's Music	
2	December 2017	Chamber Music	
3	December 2017	Classic Rock & Roll	
4	December 2017	Classical	
5	December 2017	Contemporary	
6	December 2017	Country	
7	December 2017	Folk	
8	December 2017	Jazz	

```

SELECT
m.monthyear,
ms.stylename,
SUM(e.contractprice) AS total_revenue
FROM engagements e
JOIN entertainer_styles es ON e.entertainerid = es.entertainerid

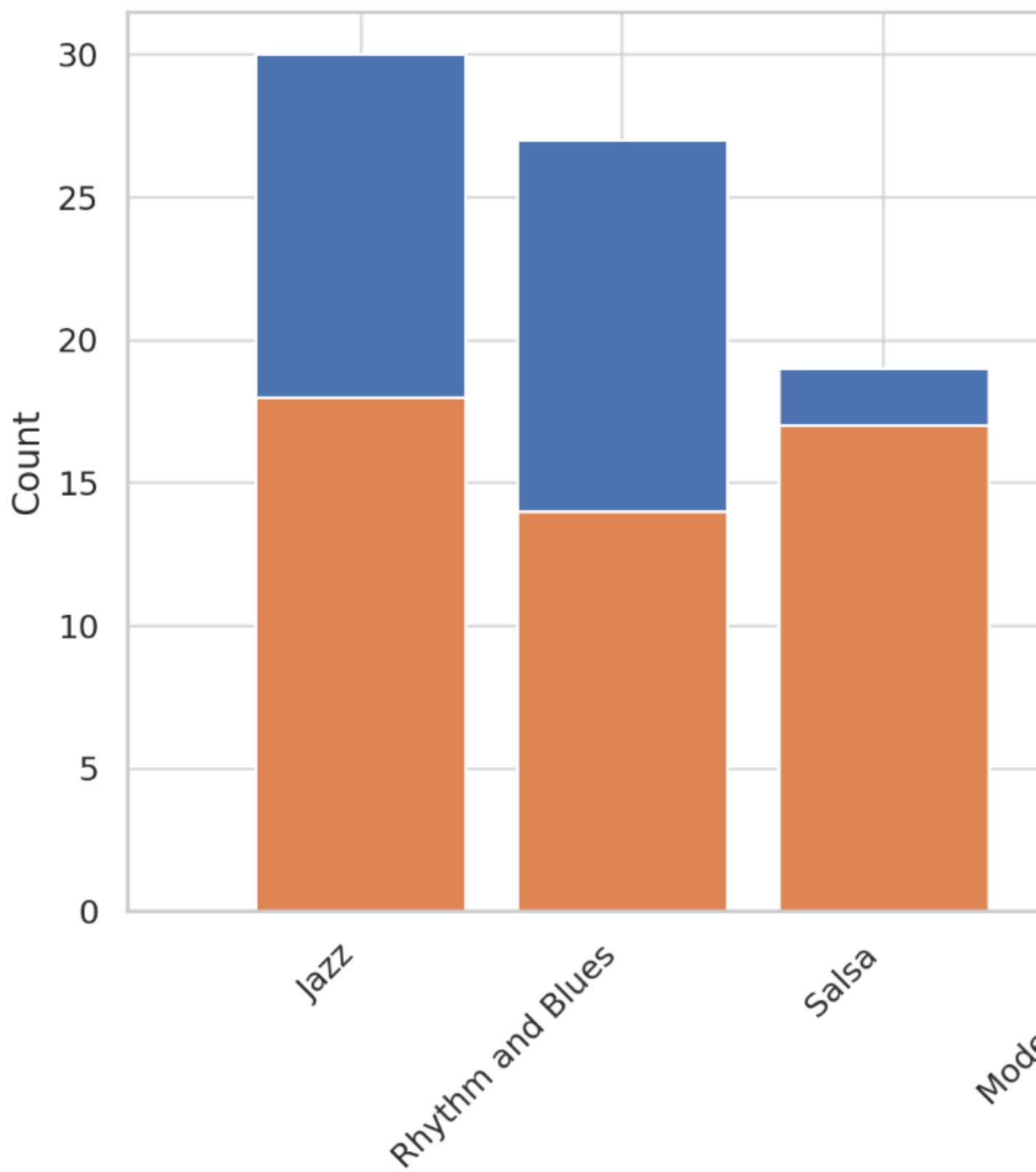
```

```

JOIN musical_styles ms ON es.styleid = ms.styleid
JOIN ztblMonths m ON e.startdate BETWEEN m.monthstart AND
m.monthend
GROUP BY m.monthyear, ms.stylename
ORDER BY m.monthyear, ms.stylename;

```

	 A-Z monthyear ▼	A-Z stylename ▼	123 total_r
1	December 2017	60's Music	
2	December 2017	Chamber Music	
3	December 2017	Classic Rock & Roll	
4	December 2017	Classical	
5	December 2017	Contemporary	
6	December 2017	Country	
7	December 2017	Folk	
8	December 2017	Jazz	



Agents to be fired/optimize their pay - incentivize

```
WITH agent_monthly AS (  
  SELECT  
    a.agentid,  
    CONCAT_WS(' ', a.agtfirstname, a.agtlastname) AS agent_name,  
    m.monthyear,  
    COUNT(e.engagementnumber) AS total_bookings,  
    SUM(e.contractprice) AS total_revenue,  
    SUM(e.contractprice * a.commissionrate) AS total_commission,  
    a.salary / 12.0 AS monthly_salary  
  FROM agents a  
  LEFT JOIN engagements e ON e.agentid = a.agentid  
  LEFT JOIN ztblMonths m ON e.startdate BETWEEN  
m.monthstart AND m.monthend  
  WHERE e.startdate IS NOT NULL  
  GROUP BY a.agentid, agent_name, m.monthyear, a.salary  
)  
SELECT  
  agentid,  
  agent_name,  
  monthyear,  
  total_bookings,  
  ROUND(total_revenue) AS total_revenue,  
  ROUND(total_commission) AS total_commission,  
  ROUND(monthly_salary) AS monthly_salary,  
  ROUND(total_revenue - total_commission - monthly_salary) AS  
net_result,  
  CASE  
    WHEN total_revenue - total_commission - monthly_salary >= 0  
  THEN 'net positive'  
  ELSE 'net negative'
```

END AS status
FROM agent monthly
ORDER BY agent name, monthyear;

	123 agentid	A-Z agent_name	A-Z monthyear	123 total_bookings	123 total_revenue	123 total_commission	123 monthly_sala
1	7	Caleb Viescas	December 2017	2	1,000	35	
2	7	Caleb Viescas	February 2018	2	1,360	48	
3	7	Caleb Viescas	January 2018	1	2,525	88	
4	7	Caleb Viescas	October 2017	2	3,460	121	
5	7	Caleb Viescas	September 2017	1	2,300	81	
6	3	Carol Viescas	December 2017	2	1,900	95	
7	3	Carol Viescas	February 2018	2	3,700	185	
8	3	Carol Viescas	January 2018	3	2,850	143	

Agent

Net R

Caleb Viescas

378

1497

Carol Viescas

3732

3361

John Kennedy

-1857

Karen Smith

-19

6936

Maria Patterson

-38

1033

Marianne Wier

-963

265

Scott Bishop

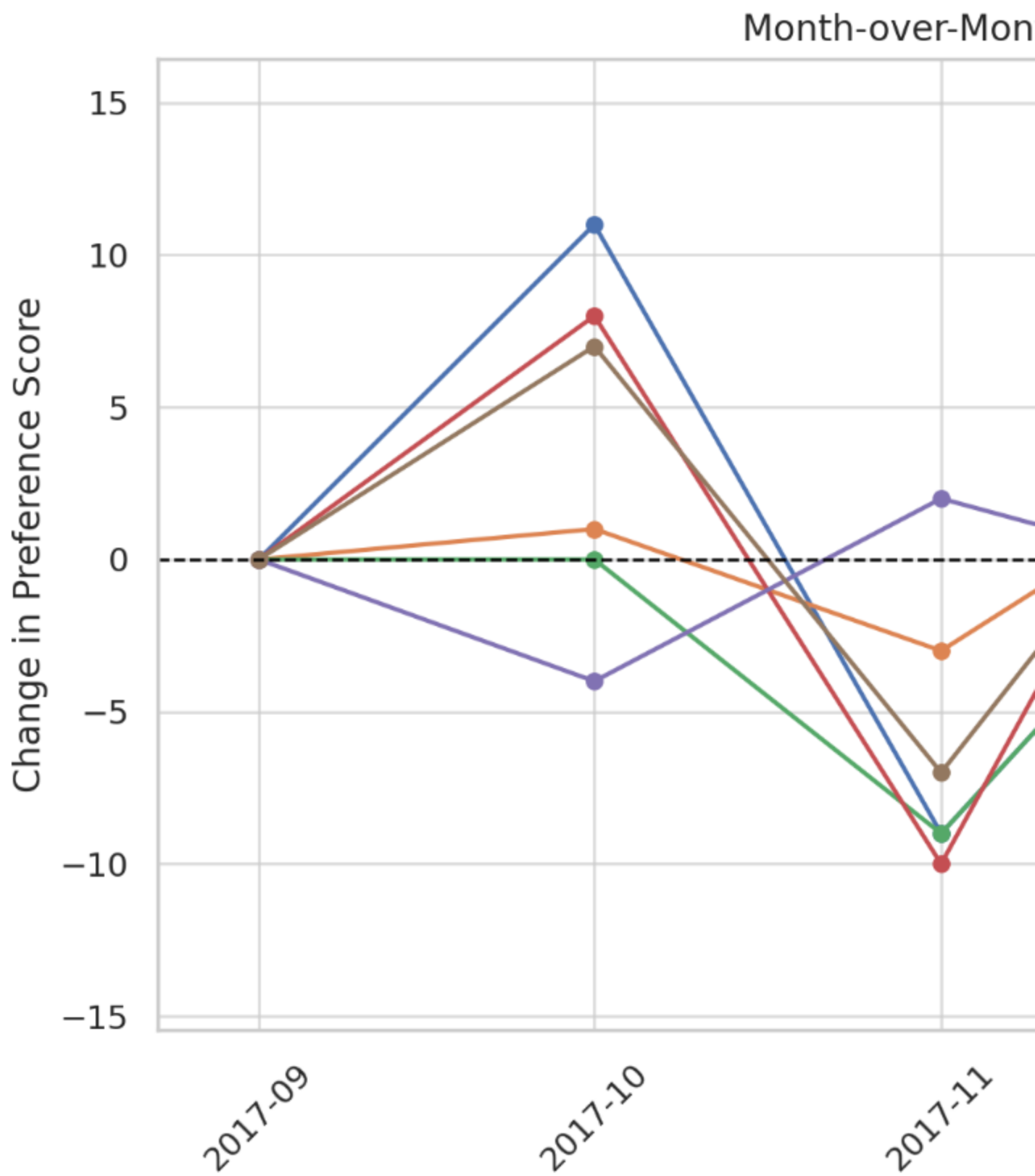
-935

```

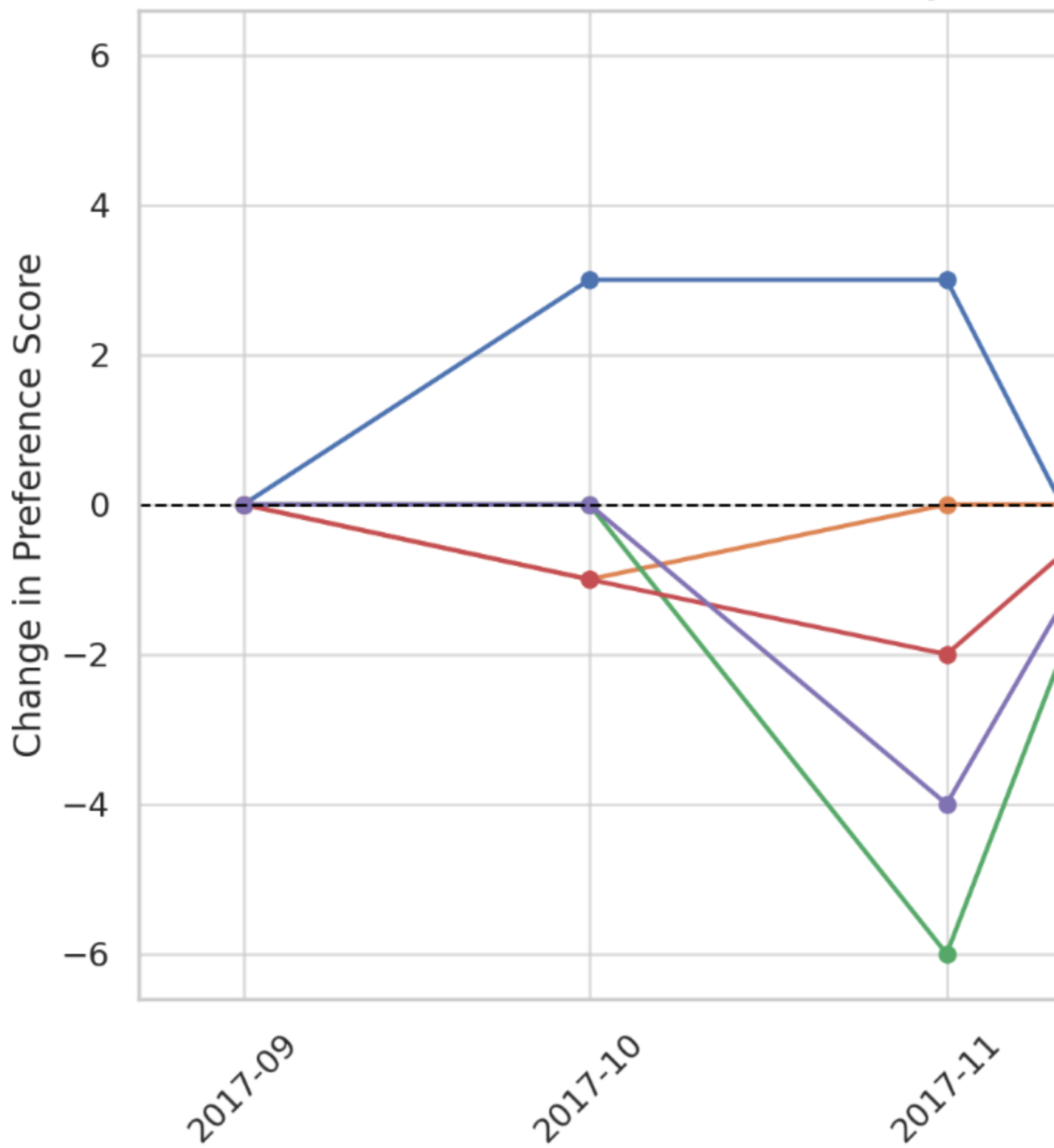
WITH preferences_scored AS (
  SELECT
    mp.customerid, mp.styleid,
    CASE
      WHEN preferenceseq = 1 THEN 3
      WHEN preferenceseq = 2 THEN 2
      WHEN preferenceseq = 3 THEN 1
    END AS score
  FROM musical_preferences mp
),
monthly_prefs AS (
  SELECT
    m.monthyear,
    ms.stylename,
    SUM(ps.score) AS total_score
  FROM preferences_scored ps
  JOIN customers c ON ps.customerid = c.customerid
  JOIN musical_styles ms ON ps.styleid = ms.styleid
  JOIN engagements e ON c.customerid = e.customerid
  JOIN ztblMonths m ON e.startdate BETWEEN m.monthstart AND
m.monthend
  GROUP BY m.monthyear, ms.stylename
)
SELECT *
FROM monthly_prefs
ORDER BY stylename, monthyear;

```

	 A-Z monthyear ▼	A-Z stylename ▼	123 total
1	December 2017	40's Ballroom Music	
2	February 2018	40's Ballroom Music	
3	January 2018	40's Ballroom Music	
4	October 2017	40's Ballroom Music	
5	December 2017	60's Music	
6	February 2018	60's Music	
7	January 2018	60's Music	
8	November 2017	60's Music	



Other Styles wi



To drive sustainable growth and operational efficiency, TuneWorks should align talent supply, customer preferences, and agent performance across both current metrics and evolving trends. Our findings support the following strategic recommendations:

1. Realign Talent Roster with Evolving Customer Preferences

Static preference counts highlight genres like Jazz, Standards, R&B, and Classic Rock as customer favorites. However, time series analysis reveals *shifts in preference momentum*—with some styles consistently trending upward (e.g., Contemporary, R&B) and others (e.g., Chamber Music, 60's Music) showing volatile or declining interest. TuneWorks should:

- Expand roster and promotion for styles with sustained or growing preference trends.
- Phase out or reposition entertainers in styles that underperform in both preference and engagement over time.
- Use monthly preference score tracking to adjust seasonal marketing efforts proactively.

2. Enhance Performer Utilization Based on Engagement Duration and Demand

Most bookings span several days with 3–4 hours of performance per day. While high-revenue, long-duration engagements dominate peak periods (e.g., December–January), this ties up performers for extended times. To improve efficiency and attract a broader range of clients, we recommend offering tiered engagement packages that provide more flexibility in booking length and pricing. These packages could include:

- Standard Engagements: Multi-day events, ideal for festivals or conferences.
- Short-Term Bookings: 1–2 day events for clients who need performers for a single weekend or evening.
- Hourly or Partial-Day Options: For smaller events, such as weddings, corporate parties, or weekday gigs.

Introducing flexible booking options will help fill downtime during off-peak periods, increase overall performer utilization, and appeal to clients with more diverse needs and budgets.

3. Reward Agent Performance Based on Net Contribution Over Time

While agents like John Kennedy and Marianne Wier are top earners based on total revenue, our monthly analysis of net results (revenue – commission – prorated salary) reveals that not all high-revenue agents are consistently profitable. TuneWorks should:

- Use monthly net profitability as a core KPI to evaluate agent performance.
- Incentivize agents with bonuses tied to sustained profitability, not just revenue spikes.
- Reallocate leads from agents with repeated net losses to those demonstrating consistent gains.

4. Address Supply-Demand Gaps in Booking Behavior

Our combined analysis of preferences, engagements, and revenue across styles and months shows misalignments: some low-preference styles are overbooked, while high-preference styles (e.g., Contemporary, R&B) may be underrepresented in engagements. TuneWorks should:

- Match customer preferences with booking trends monthly to close demand gaps.
- Avoid overbooking entertainers in low-demand genres, even if they are available.
- Highlight top entertainers in popular styles in marketing materials and recommendation engines.

5. Introduce Time-Aware Reporting Dashboards

Given the valuable insights gained through time series analysis, we recommend the creation of internal dashboards that track:

- Monthly revenue, booking count, and net result per agent
- Preference score trends and engagement counts per musical style

- Performer utilization rates over time

Reallocate Talent Based on Long-Term Preference Trends

- Prioritize rising styles like Contemporary & phase out stagnant ones.

Diversify Engagement Offerings with Tiered Booking Packages

- Introduce hourly and weekend options to improve utilization.

Use Monthly Net Profitability to Guide Agent Incentives

- Tie bonuses to agents' net contribution, not just revenue.

Balance Customer Preferences with Booking Outcomes

- Align high-preference styles with actual engagements.

Develop Dashboards for Time Series Monitoring

- Track trends in demand, bookings, and agent profit monthly.

1.

Reallocate Talent Based on Long-Term Preference Trends

While genres like Jazz, Standards, and R&B continue to show high demand across all customer preferences, time series analysis reveals additional emerging styles—such as Contemporary and Classic Rock—with strong month-over-month momentum. In contrast, styles like 60’s Music and Chamber Music consistently underperformed or showed volatility. This signals an opportunity to realign TuneWork’s talent roster by:

- Prioritizing **recruitment and promotion of entertainers** in consistently high-demand styles.
 - **Phasing out** or repositioning entertainers from styles with prolonged low preference or bookings.
 - **Monitoring preference trends monthly** to adjust marketing and scheduling in real time.
-

2.

Diversify Engagement Offerings with Tiered Booking Packages

Current engagements average over 120 hours across multi-day bookings. While profitable, this model limits entertainer availability during off-peak periods. Our time series review of engagement timing shows clear seasonal concentration (e.g., December–January), with lower activity in spring months. To optimize usage and increase flexibility, TuneWork’s should:

- Introduce **tiered engagement packages**:
 - Multi-day packages for peak seasons.
 - Single-day or hourly options for midweek or off-season events.
 - Encourage **shorter bookings with higher hourly pricing** during slow periods to boost utilization without reducing revenue per performer.
-

3.

Use Monthly Net Profitability to Guide Agent Incentives

Monthly analysis of agent performance reveals that top earners like John Kennedy and Carol Viescas show strong revenue generation, but only some maintain **consistently positive net results**. Others, such as Scott Bishop and Maria Patterson, recorded repeated net-negative months. To optimize ROI on agent salaries and commissions, we recommend:

- Using **net profitability per agent per month** as a core KPI.
 - Offering **performance bonuses for agents with consistent positive margins**.
 - **Reassigning leads or reevaluating contracts** for agents with recurring losses.
-

4.

Balance Customer Preferences with Booking and Revenue Outcomes

The monthly breakdown of customer preferences, engagement counts, and contract revenue by style highlights a persistent mismatch: styles with high customer interest are not always matched with sufficient entertainer supply, and vice versa. TuneWork's should:

- Use **monthly demand-engagement visualizations** to identify booking gaps.
 - Redirect marketing efforts toward high-preference, low-engagement styles.
 - Evaluate underbooked entertainers in low-preference genres for **retraining, retargeting, or removal** from the active roster.
-

5.

Develop Dashboards for Continuous Time Series Monitoring

Time-aware insights such as preference shifts, agent profitability by month, and genre-based revenue trends provide valuable operational intelligence. We recommend developing internal dashboards that track:

- Agent net profit and booking count monthly.
- Customer preference scores and engagement trends by style.
- Average hourly value of engagements by month and season.

These tools will enable agile, data-driven decision-making and more responsive business planning.

- Track rising styles (e.g., Contemporary, Jazz) and reduce focus on declining ones (e.g., Chamber Music)! Reallocate our artist resources is crucial
- Offer flexible booking packages—hourly, single-day, and multi-day—to improve artist utilization and capture a wider range of clients.
- Evaluate agent contributions using net monthly profitability (revenue minus salary and commission)
- Reward agents who consistently deliver strong net profits, and strategically reallocate client leads away from agents with recurring underperformance.
- Build dashboards to monitor monthly trends in customer preferences, entertainer engagement, and agent performance.
- Use these tools to quickly adapt booking strategies, adjust marketing focus, and realign the talent roster.