Sprint 5- Report Generation

Throughout this semester, our team of two has been closely involved in this hands-on SQL project that brought classroom teachings to life. After each lesson, we diligently incorporated classroom's teachings into our work, building an employee database that stands as a testament to the real-life applications of SQL queries. With each of the four sprints we've completed so far, we've received valuable feedback from our professor, which has been like a beacon guiding us through the complexities of database management. As we approach the completion of our fifth sprint, the cumulative experience gained from the semester-long endeavor has been nothing short of transformative. The insights have been crucial in sharpening our approach, ensuring that with every iteration, our project not only met but exceeded the expectations. This process of learning, applying, and refining has helped us to see the interconnectedness of data more clearly and has given us a deeper understanding of how databases are not just about storing information but about telling a story through data. Our journey through this project has been incredibly rewarding, teaching us the power of translating theoretical knowledge into practical solutions. As we move towards our final sprint, we feel equipped and eager to tackle any data challenges that come our way.

Now, we will dive into the reports that we created,

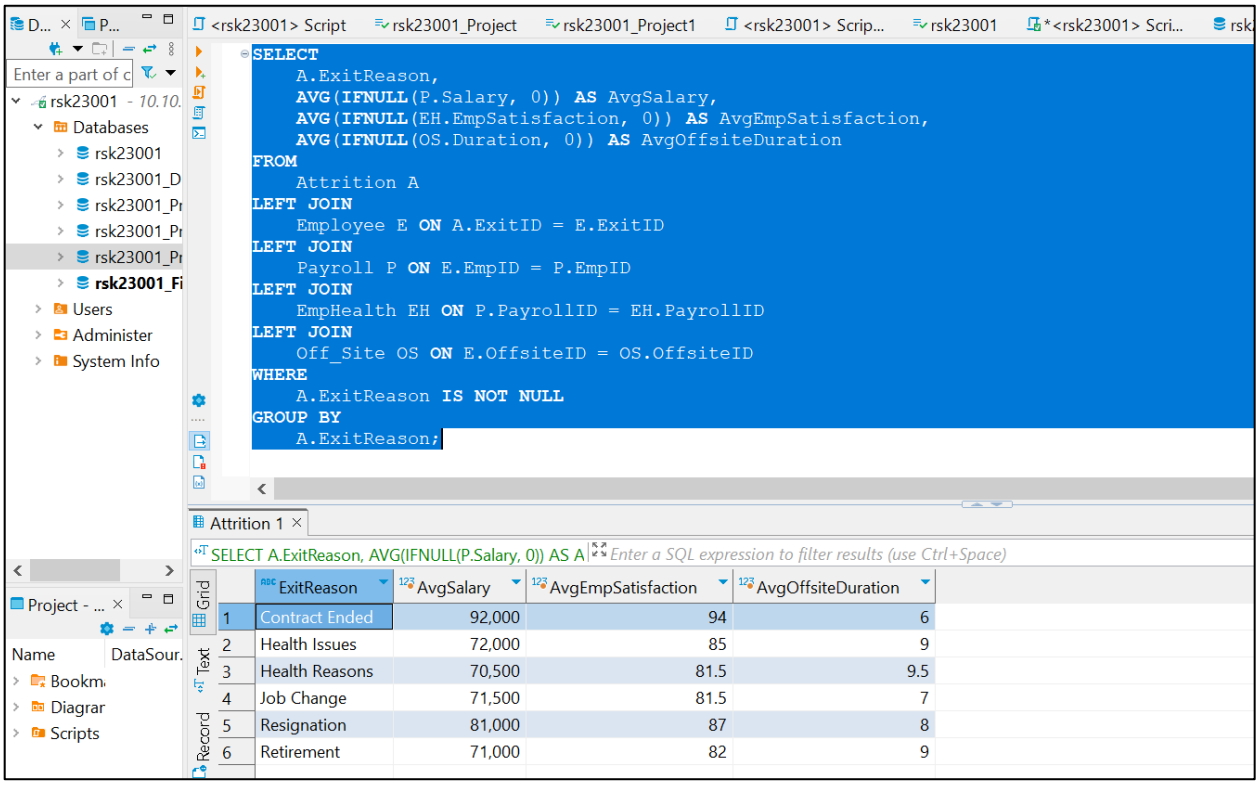
1. Exit Analysis

The report we've crafted, which links exit reasons to average salaries, employee satisfaction, and the duration of offsite activities, is a vital tool for any business. It sheds light on whether competitive pay influences staff retention, how contentment at work affects turnover, and if events like offsite trainings keep employees engaged. Essentially, this report helps a company pinpoint the factors leading to people leaving and use this insight to make practical changes—like adjusting pay scales, enhancing work culture, or investing more in team-building events. All this can lead to happier employees who stick around longer, saving the business money on hiring costs and keeping the team's morale high.

Code:

```
SELECT
    A.ExitReason,
    AVG(IFNULL(P.Salary, 0)) AS AvgSalary,
    AVG(IFNULL(EH.EmpSatisfaction, 0)) AS AvgEmpSatisfaction,
    AVG(IFNULL(OS.Duration, 0)) AS AvgOffsiteDuration
FROM
    Attrition A
LEFT JOIN
    Employee E ON A.ExitID = E.ExitID
LEFT JOIN
    Payroll P ON E.EmpID = P.EmpID
LEFT JOIN
    EmpHealth EH ON P.PayrollID = EH.PayrollID
LEFT JOIN
```

```
    Off_Site OS ON E.OffsiteID = OS.OffsiteID
WHERE
    A.ExitReason IS NOT NULL
GROUP BY
    A.ExitReason;
```



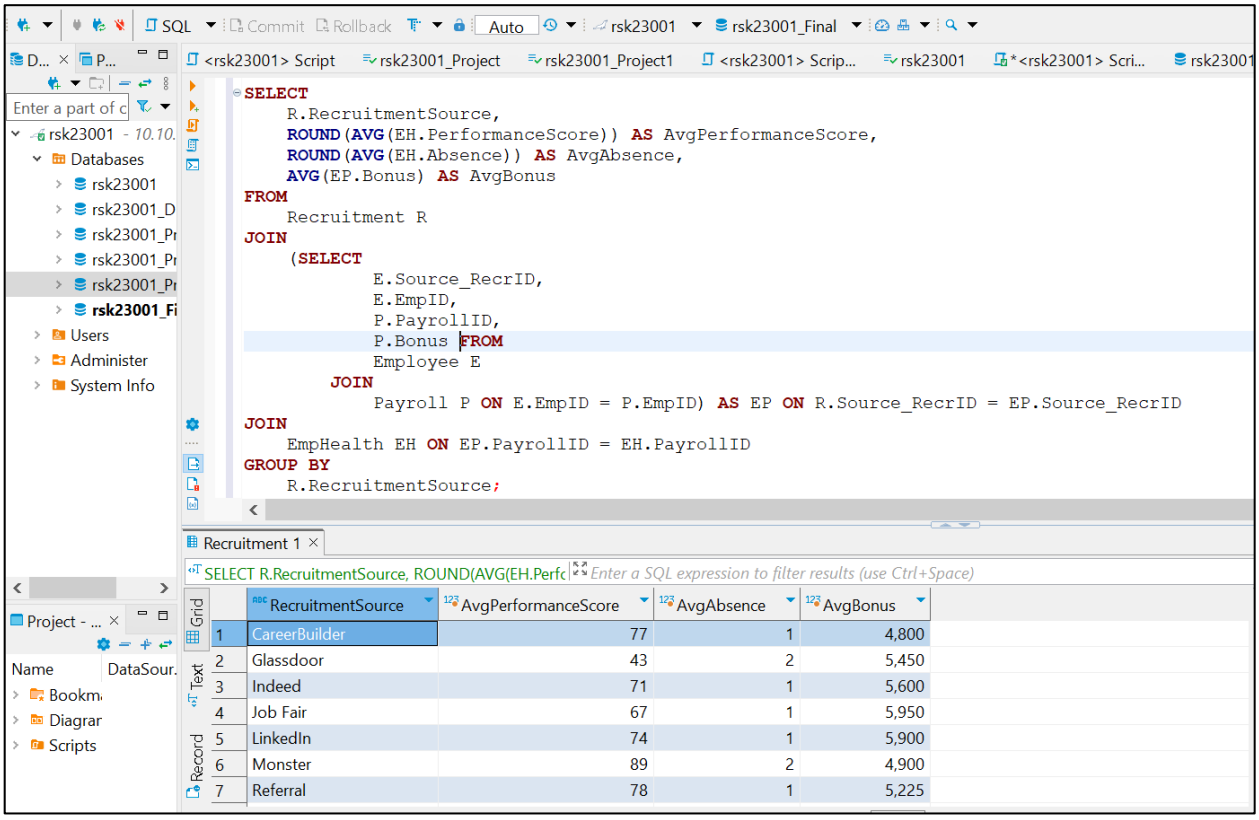
2. Recruitment Source Impact Analysis

This concise report delineates the efficiency of different recruitment sources by correlating them with employees' average performance scores, absenteeism, and bonuses awarded, categorized by the source of hire. It offers businesses clear insights into which recruitment channels yield the highest performing and most engaged employees, as well as the cost-effectiveness of the recruitment process. By identifying the most lucrative sources for talent acquisition, companies can strategically allocate their HR budgets, foster relationships with the best performing recruitment platforms, and fine-tune their hiring strategies for maximum organizational benefit.

Code:

```
SELECT
    R.RecruitmentSource,
    ROUND(AVG(EH.PerformanceScore)) AS AvgPerformanceScore,
    ROUND( AVG(EH.Absence)) AS AvgAbsence,
    AVG(P.Bonus) AS AvgBonus
FROM
    Recruitment R
JOIN
```

```
    Employee E ON R.Source_RecrID = E.Source_RecrID
JOIN
    Payroll P ON E.EmpID = P.EmpID
JOIN
    EmpHealth EH ON P.PayrollID = EH.PayrollID
GROUP BY
    R.RecruitmentSource;
```



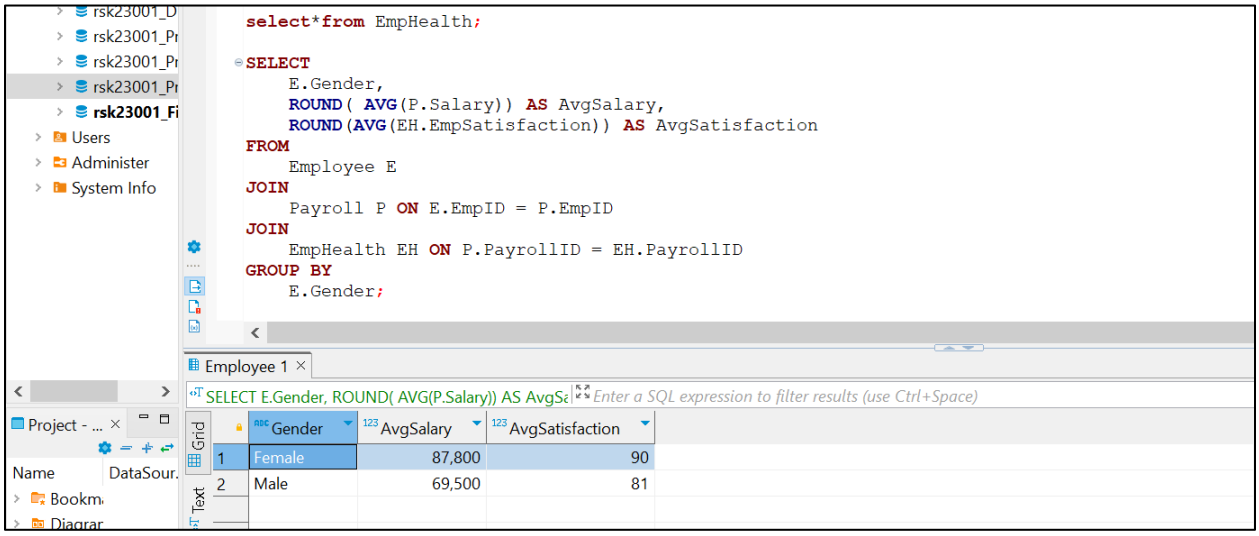
3. Gender Equity in Compensation and Satisfaction Report

Although small but this essential report brings to light the average salaries and job satisfaction levels across genders within the company. It serves as a critical measure of workplace equality, highlighting any discrepancies between different gender groups. The insights from this report can guide the business in ensuring fair compensation practices and addressing any gaps in employee satisfaction. By actively monitoring and responding to these metrics, the company demonstrates its commitment to equity, which is not only ethically sound but can also enhance its reputation as an inclusive and fair employer.

Code:

```
SELECT
    E.Gender,
    ROUND( AVG(P.Salary)) AS AvgSalary,
    ROUND(AVG(EH.EmpSatisfaction)) AS AvgSatisfaction
FROM
```

```
    Employee E
JOIN
    Payroll P ON E.EmpID = P.EmpID
JOIN
    EmpHealth EH ON P.PayrollID = EH.PayrollID
GROUP BY
    E.Gender;
```



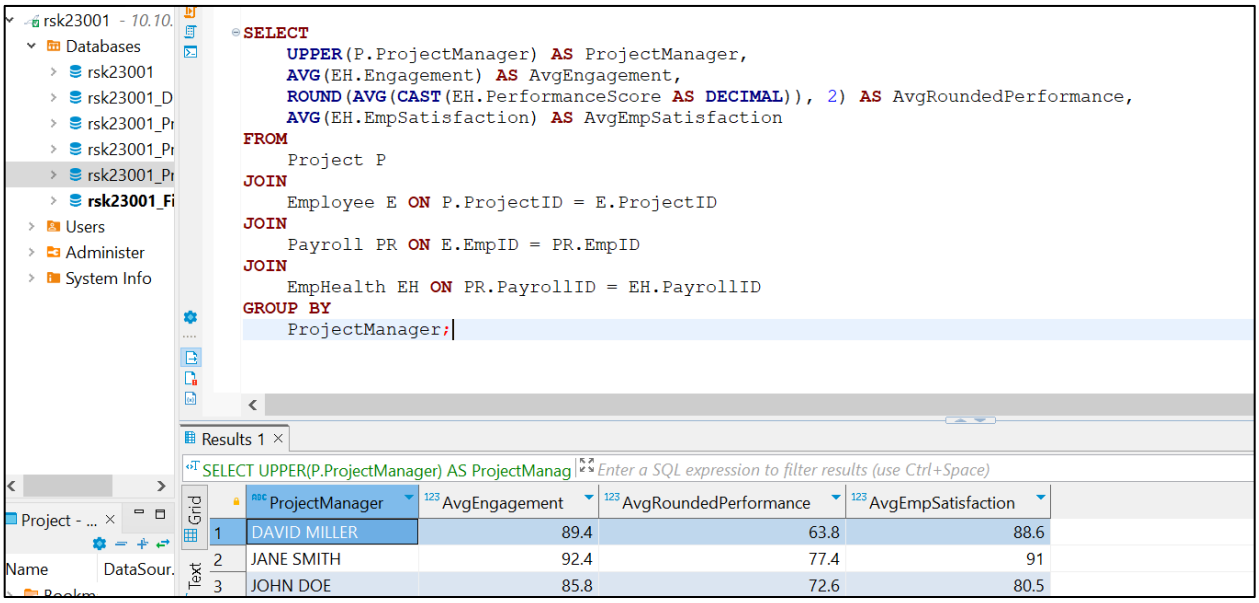
4. Project Management Efficacy Report

This pivotal report assesses the average employee engagement, performance, and satisfaction within projects, grouped by their respective managers. It's an invaluable tool for gauging the effectiveness of project leadership and the overall health of project teams. The data can steer companies to support project managers who foster high-performing and contented teams, as well as identify and remedy issues in projects with lower scores. Implementing improvements based on this report's findings can lead to more successful project outcomes and a more motivated workforce.

Code:

```
SELECT
    p.ProjectManager,
    ROUND( AVG(eh.Engagement)) AS AvgEngagement,
    ROUND( AVG(eh.EmpSatisfaction)) AS AvgEmpSatisfaction,
    ROUND( AVG (eh.PerformanceScore)) AS AvgEmpPerfScore
FROM
    Project p
JOIN
    Employee e ON p.ProjectID = e.ProjectID
JOIN
    Payroll pay ON e.EmpID = pay.EmpID
JOIN
    EmpHealth eh ON pay.PayrollID = eh.PayrollID
GROUP BY
```

```
    p.ProjectManager;
```

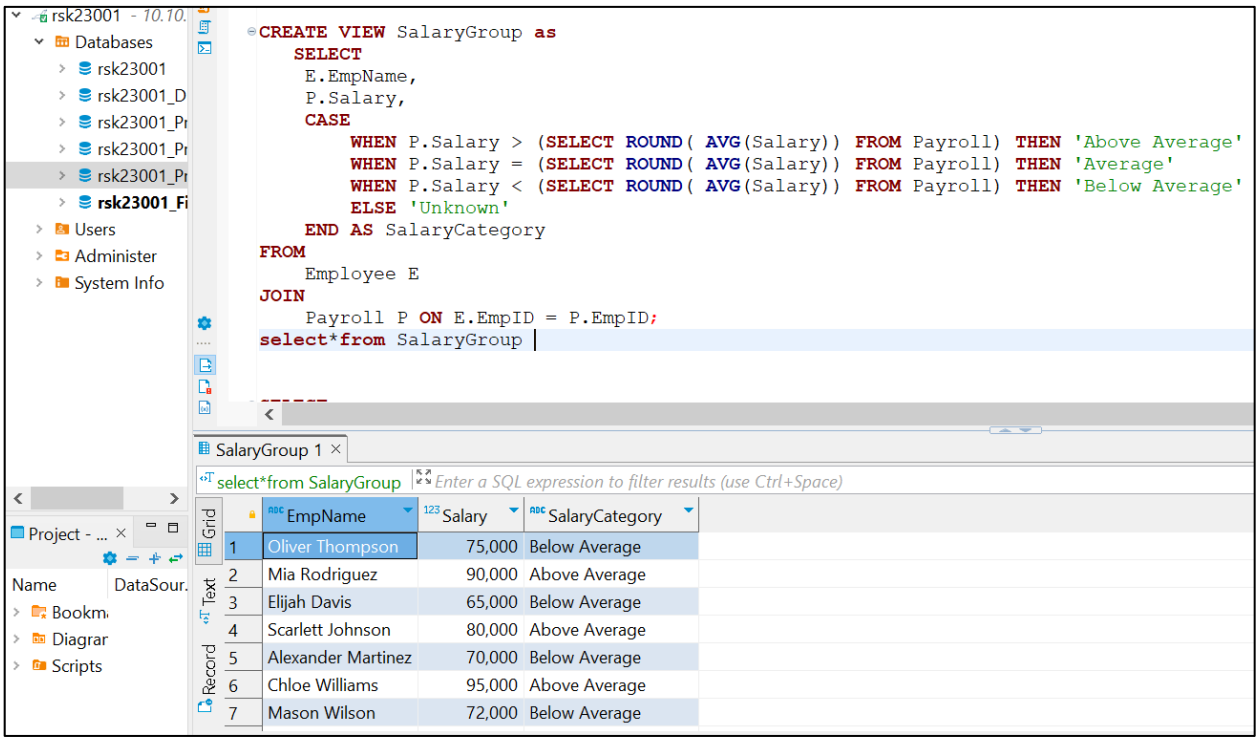


5. Employee Compensation Classification Report

This definitive report lists each employee's name alongside their salary and categorizes it as above average, average, or below average. Incorporating a view function ensures this sensitive data remains accurate and secure. It's a strategic asset for human resources to monitor compensation equity and competitiveness within the company. Utilizing this report, HR can identify and address any disparities in pay, reward top performers accordingly, and ensure that salaries reflect the market and job performance, fostering transparency and fairness in pay structure across the organization.

Code:

```
CREATE VIEW SalaryGroup as
   SELECT
    E.EmpName,
    P.Salary,
    CASE
        WHEN P.Salary > (SELECT ROUND( AVG(Salary)) FROM Payroll) THEN
'Above Average'
        WHEN P.Salary = (SELECT ROUND( AVG(Salary)) FROM Payroll) THEN
'Average'
        WHEN P.Salary < (SELECT ROUND( AVG(Salary)) FROM Payroll) THEN
'Below Average'
        ELSE 'Unknown'
    END AS SalaryCategory
FROM
    Employee E
JOIN
    Payroll P ON E.EmpID = P.EmpID;
select*from SalaryGroup;
```



In this project, we've used every entity of our employee database to make detailed reports. We've followed professor's instructions closely and used everything we've learned to make sure our work is thorough. By doing this, we've managed to get a clear picture of the company's operations and take a good look at how employees are doing. We've put our knowledge into practice and made sure we're doing things by the book every step of the way.