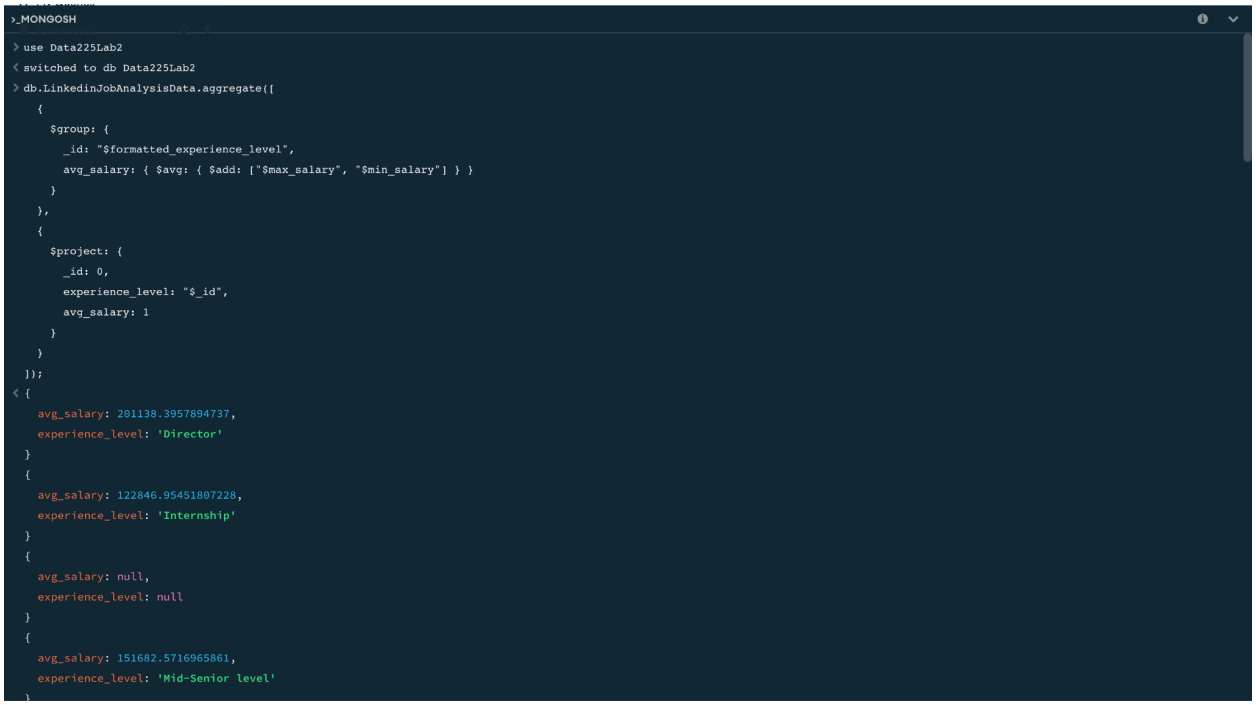
MongoDB Queries

1. Calculate the average salary for each experience

```
level.db.LinkedinJobAnalysisData.aggregate([
  {
    $group: {
      _id: "$formatted_experience_level",
      avg_salary: { $avg: { $add: ["$max_salary", "$min_salary"] } }
    }
  },
  {
    $project: {
      _id: 0,
      experience_level: "$_id",
      avg_salary: 1
    }
  }
]);
```



This query uses the LinkedinJobAnalysisData collection to calculate the average salary for each experience level. The average salary is determined by taking the mean of the minimum and maximum incomes for each level, and it groups job posts based on formatted_experience_level. Following that, a projection of the results shows the average salary and level of experience. This approach offers insight into the ways in which salary expectations vary among various job market experience levels.

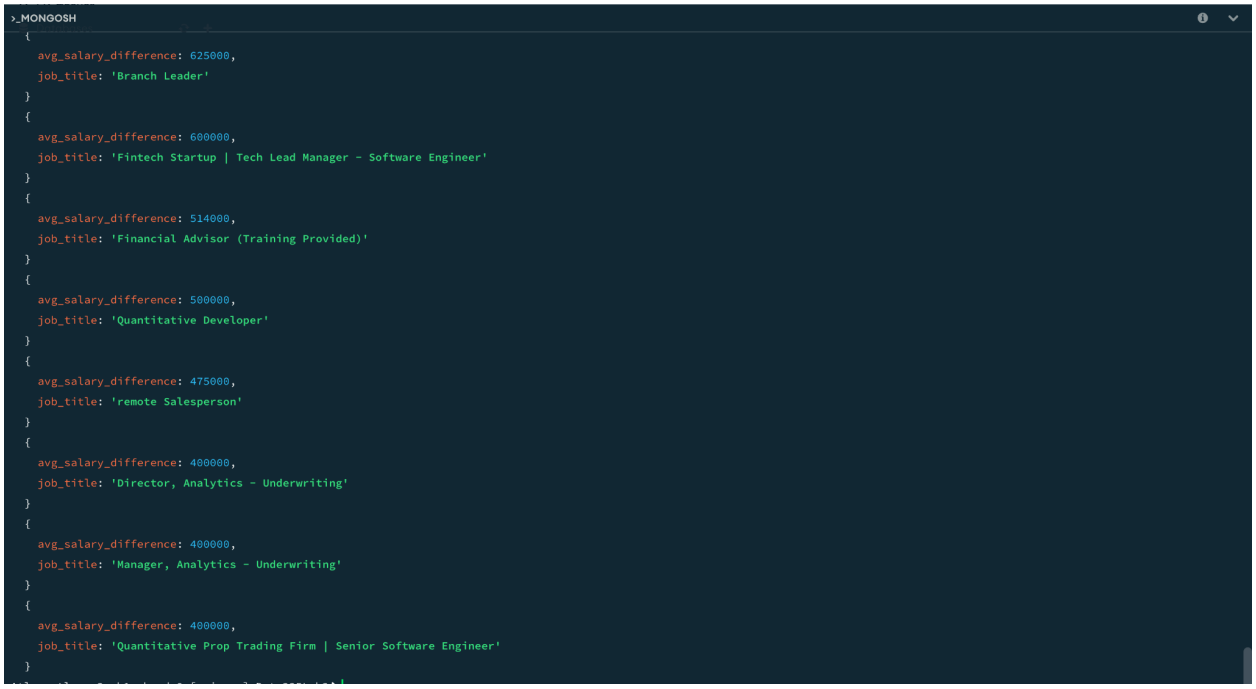
2. Finding the most common job title

```
db.LinkedinJobAnalysisData.aggregate([
  {
    $group: {
      _id: "$job_title",
      count: { $sum: 1 }
    }
  },
  {
    $sort: { count: -1 }
  },
  {
    $limit: 1
  },
  {
    $project: {
      _id: 0,
      most_common_job: "$_id",
      postings_count: "$count"
    }
  }
]);
```

The above query identifies the most common job title in the `LinkedinJobAnalysisData` collection. It counts the occurrences of each title and groups the data by 'job_title'. This count is then used to arrange the results in decreasing order. In order to highlight the job title that appears most frequently in the dataset, the query restricts the output to the single most frequent job title and provides it along with the total number of postings for that title.

3.Identify Job Titles with the Most Significant Salary Differences

```
db.LinkedinJobAnalysisData.aggregate([
  {
    $group: {
      _id: "$job_title",
      avg_salary_difference: { $avg: { $subtract: ["$max_salary", "$min_salary"] } }
    }
  },
  {
    $sort: { avg_salary_difference: -1 }
  },
  {
    $limit: 10
  },
  {
    $project: {
      _id: 0,
      job_title: "$_id",
      avg_salary_difference: 1
    }
  }
]);
```



In order to determine which job titles have the biggest disparities between their maximum and minimum salary offers, this query examines the 'LinkedinJobAnalysisData' collection. For every job title, the wage differential is computed and sorted in descending order. By limiting the output to the top 10, the query highlights the job titles with the greatest salary variability. This approach helps identify the roles with the greatest salary ranges available in the job market.