

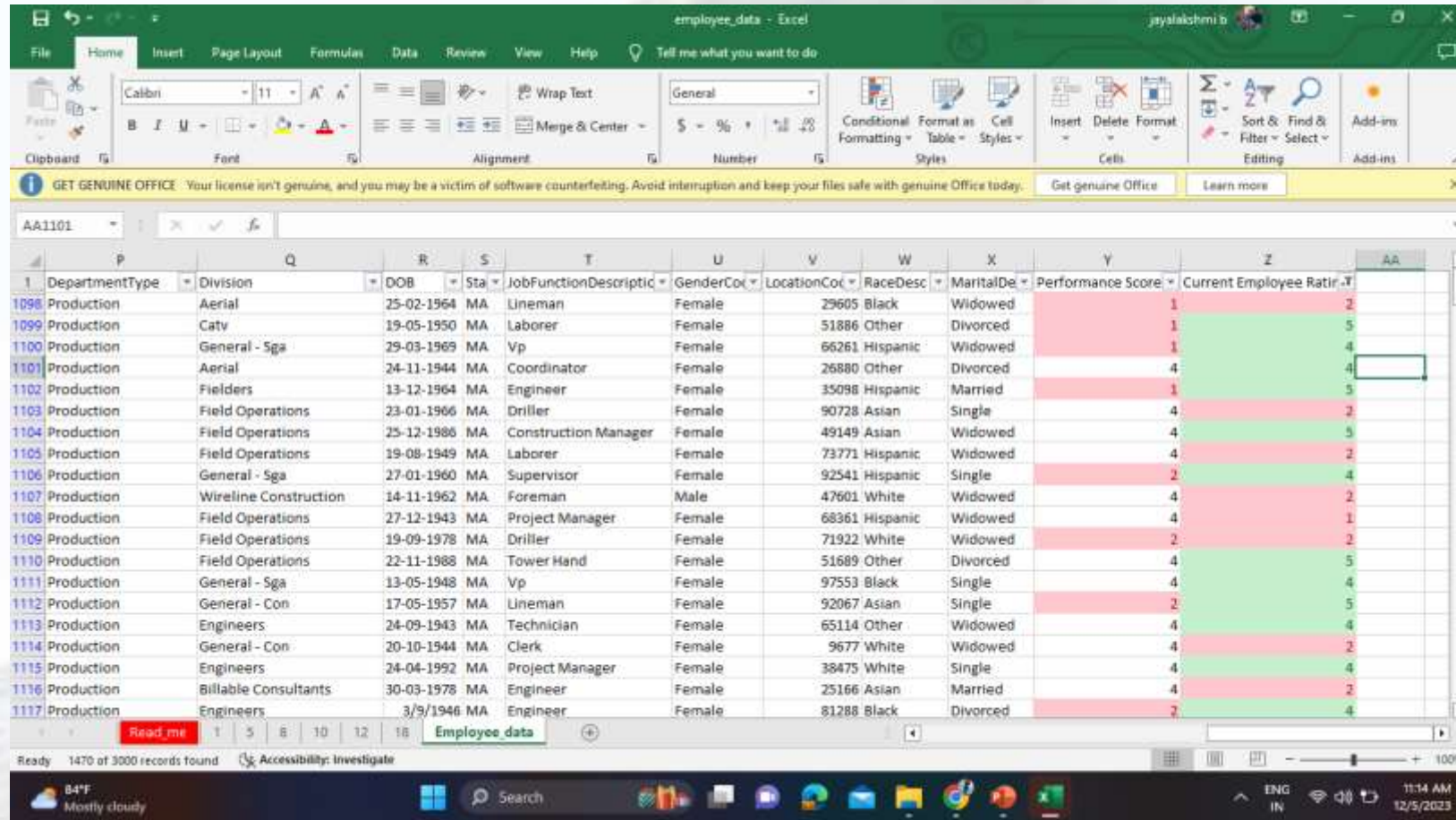
PROJECT 1 EMPLOYEE DATA ANALYSIS



Create a pivot table to summarize the total number of employees in each department

| Department | Admin Offices | Executive Office | IT/IS | Production | Sales | Software Engineering | Grand Total |
|-----------------------|------------------|---------------------|-------|------------|-------|-------------------------|----------------|
| Count of Employees | 80 | 24 | 430 | 2020 | 331 | 115 | 3000 |

Apply conditional formatting to highlight employees with a "Performance Score" below 3 in red



The screenshot displays the Microsoft Excel interface with a file named "employee_data - Excel". The ribbon is set to "Home", and the "Conditional Formatting" button is visible in the "Styles" group. A yellow banner at the top of the worksheet area reads: "GET GENUINE OFFICE Your license isn't genuine, and you may be a victim of software counterfeiting. Avoid interruption and keep your files safe with genuine Office today. Get genuine Office Learn more".

The worksheet contains a table with the following columns: DepartmentType, Division, DOB, Sta, JobFunctionDescriptio, GenderCo, LocationCo, RaceDesc, MaritalDe, Performance Score, Current Employee Rati, and T. The "Performance Score" column is highlighted with conditional formatting: scores of 1 and 2 are red, 3 is green, 4 is pink, and 5 is light green. The "Current Employee Rati" column also has conditional formatting: 1 is red, 2 is pink, 3 is light green, 4 is green, and 5 is light green.

The table data is as follows:

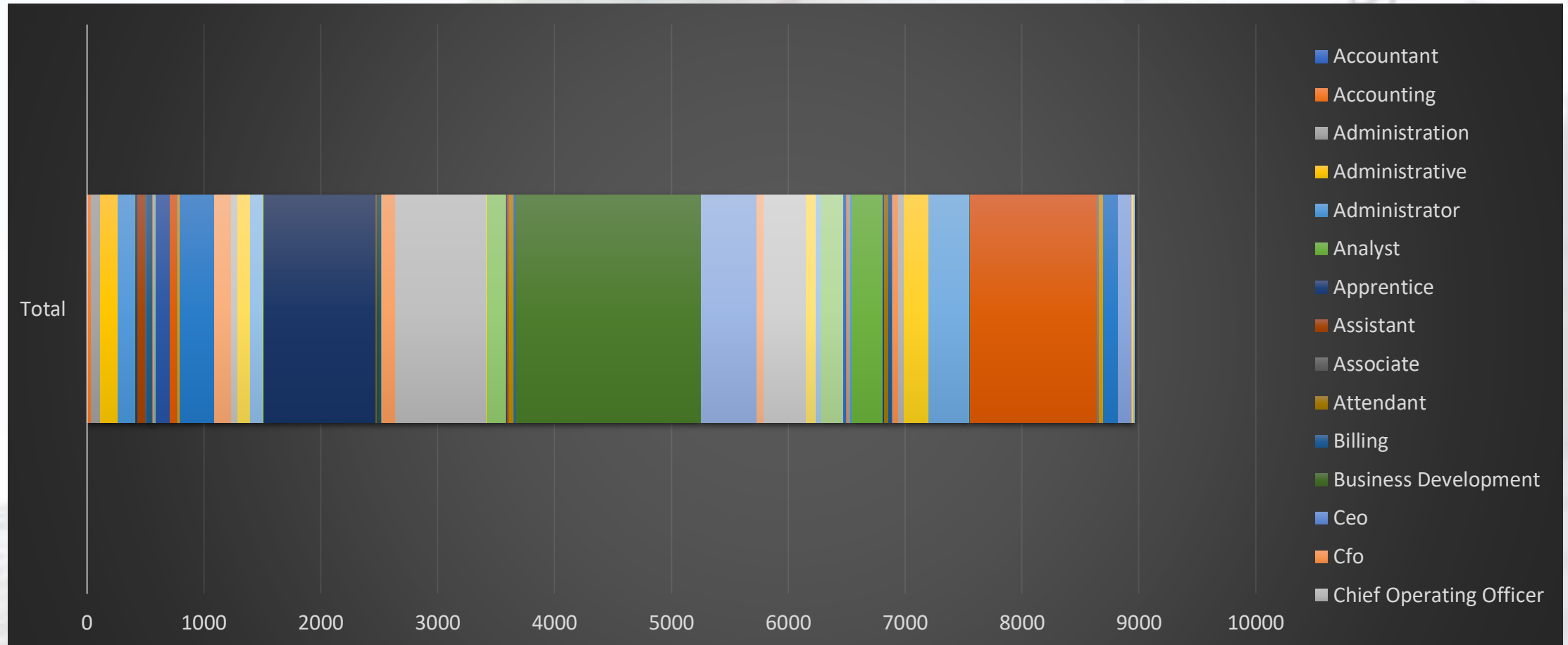
| | DepartmentType | Division | DOB | Sta | JobFunctionDescriptio | GenderCo | LocationCo | RaceDesc | MaritalDe | Performance Score | Current Employee Rati | T |
|------|----------------|-----------------------|------------|-----|-----------------------|----------|------------|----------|-----------|-------------------|-----------------------|---|
| 1098 | Production | Aerial | 25-02-1964 | MA | Lineman | Female | 29605 | Black | Widowed | 1 | 2 | |
| 1099 | Production | Catv | 19-05-1950 | MA | Laborer | Female | 51886 | Other | Divorced | 1 | 5 | |
| 1100 | Production | General - Sga | 29-03-1969 | MA | Vp | Female | 66261 | Hispanic | Widowed | 1 | 4 | |
| 1101 | Production | Aerial | 24-11-1944 | MA | Coordinator | Female | 26880 | Other | Divorced | 4 | 4 | |
| 1102 | Production | Fielders | 13-12-1964 | MA | Engineer | Female | 35098 | Hispanic | Married | 1 | 5 | |
| 1103 | Production | Field Operations | 23-01-1966 | MA | Driller | Female | 90728 | Asian | Single | 4 | 2 | |
| 1104 | Production | Field Operations | 25-12-1986 | MA | Construction Manager | Female | 49149 | Asian | Widowed | 4 | 5 | |
| 1105 | Production | Field Operations | 19-08-1949 | MA | Laborer | Female | 73771 | Hispanic | Widowed | 4 | 2 | |
| 1106 | Production | General - Sga | 27-01-1960 | MA | Supervisor | Female | 92541 | Hispanic | Single | 2 | 4 | |
| 1107 | Production | Wireline Construction | 14-11-1962 | MA | Foreman | Male | 47601 | White | Widowed | 4 | 2 | |
| 1108 | Production | Field Operations | 27-12-1943 | MA | Project Manager | Female | 68361 | Hispanic | Widowed | 4 | 1 | |
| 1109 | Production | Field Operations | 19-09-1978 | MA | Driller | Female | 71922 | White | Widowed | 2 | 2 | |
| 1110 | Production | Field Operations | 22-11-1988 | MA | Tower Hand | Female | 51689 | Other | Divorced | 4 | 5 | |
| 1111 | Production | General - Sga | 13-05-1948 | MA | Vp | Female | 97553 | Black | Single | 4 | 4 | |
| 1112 | Production | General - Con | 17-05-1957 | MA | Lineman | Female | 92067 | Asian | Single | 2 | 5 | |
| 1113 | Production | Engineers | 24-09-1943 | MA | Technician | Female | 65114 | Other | Widowed | 4 | 4 | |
| 1114 | Production | General - Con | 20-10-1944 | MA | Clerk | Female | 9677 | White | Widowed | 4 | 2 | |
| 1115 | Production | Engineers | 24-04-1992 | MA | Project Manager | Female | 38475 | White | Single | 4 | 4 | |
| 1116 | Production | Billable Consultants | 30-03-1978 | MA | Engineer | Female | 25166 | Asian | Married | 4 | 2 | |
| 1117 | Production | Engineers | 3/9/1946 | MA | Engineer | Female | 81288 | Black | Divorced | 2 | 4 | |

The status bar at the bottom indicates "Ready 1470 of 3000 records found" and "Accessibility: Investigate". The taskbar shows the system clock as 11:14 AM on 12/5/2023.

Calculate the average "Satisfaction Score" for male and female employees separately using a pivot table

| GENDER | Female | Male | Grand Total |
|-------------------------------|--------|-------|-------------|
| Average of Satisfaction Score | 3.006 | 3.042 | 3.022 |

Create a chart to visualize the distribution of "Work-Life Balance Score" for different job functions



Filter the data to display only terminated employees and find out the most common "Termination Type."

| Termination Type | Involuntary | Resignation | Retirement | Unk | Voluntary | Grand Total |
|-------------------------|-------------|-------------|------------|------|-----------|-------------|
| Count of EmployeeStatus | 388 | 380 | 377 | 1467 | 388 | 3000 |

Calculate the average "Engagement Score" for each department using a pivot table

| Department | Admin Offices | Executive Office | IT/IS | Production | Sales | Software Engineering | Grand Total |
|--------------------------------|------------------|---------------------|-------|------------|-------|-------------------------|----------------|
| Average of Engagement Score | 2.925 | 3.375 | 3.026 | 2.906 | 2.991 | 2.974 | 2.940 |

Use VLOOKUP to find the supervisor's email address for a specific employee

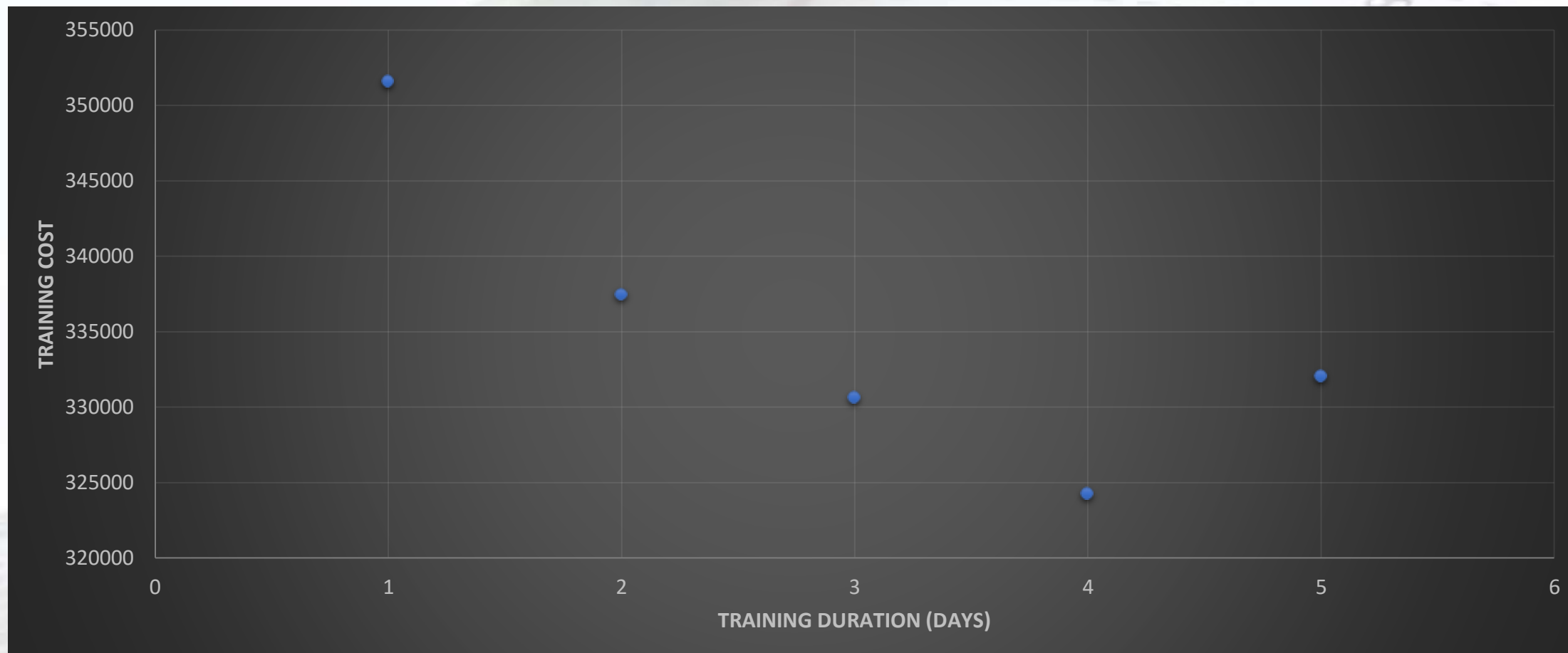
- VLOOKUP(D2,A:C,3,FALSE)

| Employee ID | First Name | Email |
|-------------|------------|---------------------------|
| 1014 | Heidi | brentswanson@example.org |
| 1020 | Cheryl | corey49@example.net |
| 1027 | Cory | sandraferrell@example.net |
| 1060 | Susan | zmoore@example.com |

Can you identify the department with the highest average "Employee Rating?"

| Department | Admin Offices | Executive Office | IT/IS | Production | Sales | Software Engineering | Grand Total |
|---------------------------------------|------------------|---------------------|-------|------------|-------|-------------------------|-------------|
| Average of Current Employee Rating | 3.025 | 2.792 | 2.970 | 2.982 | 2.909 | 2.904 | 2.969 |

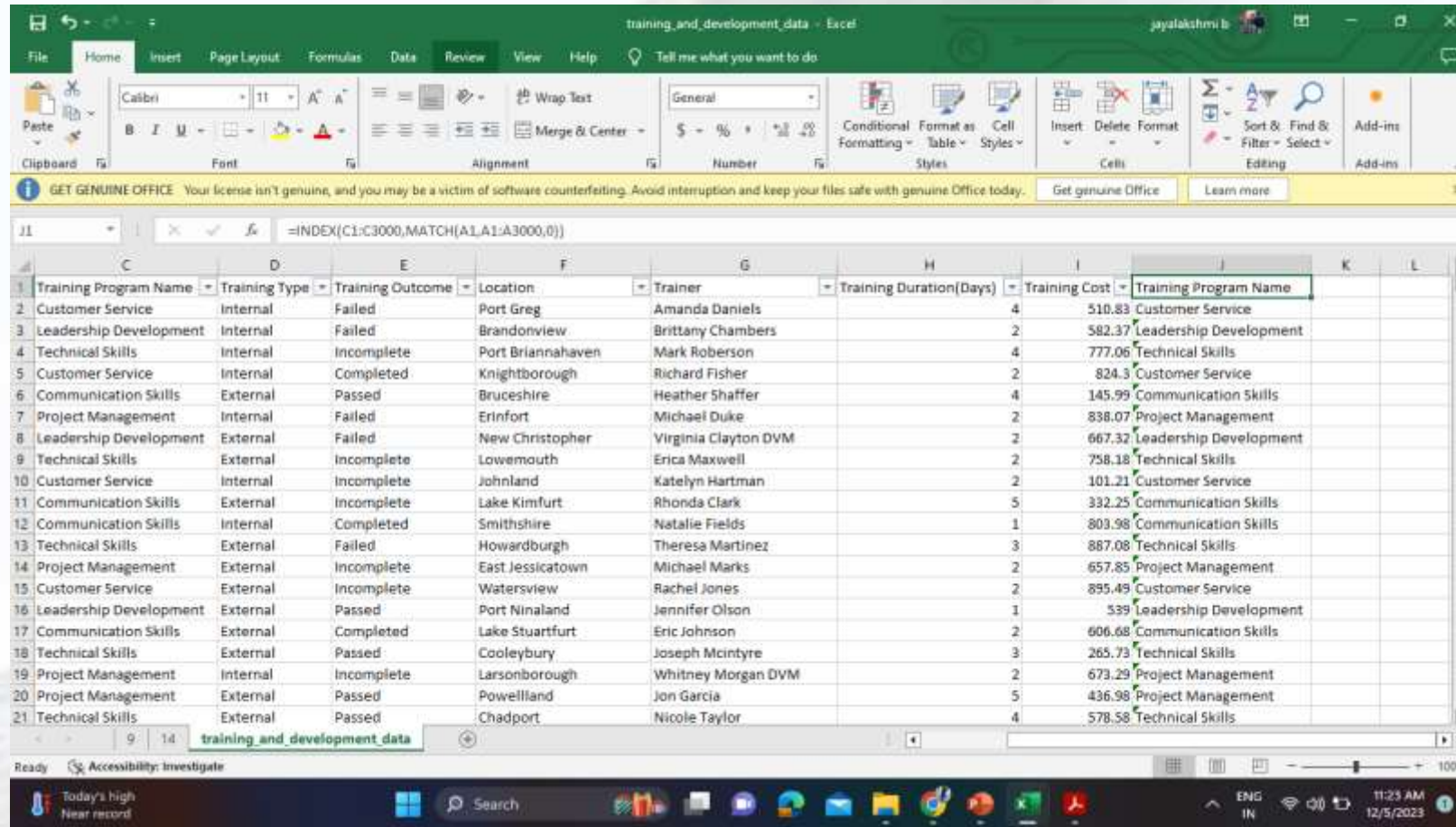
Create a scatter plot to explore the relationship between "Training Duration (Days)" and "Training Cost."



Build a pivot table that shows the count of employees by "RaceDesc" and "GenderCode."

| Count of Employees | RaceDesc | | | | | |
|--------------------|----------|-------|----------|-------|-------|-------------|
| GenderCode | Asian | Black | Hispanic | Other | White | Grand Total |
| Female | 346 | 346 | 325 | 318 | 347 | 1682 |
| Male | 283 | 272 | 247 | 264 | 252 | 1318 |
| Grand Total | 629 | 618 | 572 | 582 | 599 | 3000 |

Use INDEX and MATCH functions to find the "Training Program Name" for an employee with a specific ID



The screenshot shows an Excel spreadsheet titled "training_and_development_data". The formula bar displays the formula `=INDEX(C1:C3000,MATCH(A1:A1:A3000,0))`. The spreadsheet contains a table with the following columns: Training Program Name, Training Type, Training Outcome, Location, Trainer, Training Duration(Days), Training Cost, and Training Program Name. The data is organized into rows, with the first row being a header. The table lists various training programs such as Customer Service, Leadership Development, Technical Skills, Communication Skills, Project Management, and Leadership Development, along with their respective outcomes, locations, trainers, durations, and costs.

| Training Program Name | Training Type | Training Outcome | Location | Trainer | Training Duration(Days) | Training Cost | Training Program Name |
|------------------------|---------------|------------------|-------------------|----------------------|-------------------------|---------------|------------------------|
| Customer Service | Internal | Failed | Port Greg | Amanda Daniels | 4 | 510.83 | Customer Service |
| Leadership Development | Internal | Failed | Brandonview | Brittany Chambers | 2 | 582.37 | Leadership Development |
| Technical Skills | Internal | Incomplete | Port Briannahaven | Mark Roberson | 4 | 777.06 | Technical Skills |
| Customer Service | Internal | Completed | Knightborough | Richard Fisher | 2 | 824.3 | Customer Service |
| Communication Skills | External | Passed | Brucehire | Heather Shaffer | 4 | 145.99 | Communication Skills |
| Project Management | Internal | Failed | Erinfort | Michael Duke | 2 | 838.07 | Project Management |
| Leadership Development | External | Failed | New Christopher | Virginia Clayton DVM | 2 | 667.32 | Leadership Development |
| Technical Skills | External | Incomplete | Lowemouth | Erica Maxwell | 2 | 758.18 | Technical Skills |
| Customer Service | Internal | Incomplete | Johnland | Katelyn Hartman | 2 | 101.21 | Customer Service |
| Communication Skills | External | Incomplete | Lake Kimfurt | Rhonda Clark | 5 | 332.25 | Communication Skills |
| Communication Skills | Internal | Completed | Smithshire | Natalie Fields | 1 | 803.98 | Communication Skills |
| Technical Skills | External | Failed | Howardburgh | Theresa Martinez | 3 | 887.08 | Technical Skills |
| Project Management | External | Incomplete | East Jessicatown | Michael Marks | 2 | 657.85 | Project Management |
| Customer Service | External | Incomplete | Watersview | Rachel Jones | 2 | 895.49 | Customer Service |
| Leadership Development | External | Passed | Port Ninaland | Jennifer Olson | 1 | 539 | Leadership Development |
| Communication Skills | External | Completed | Lake Stuartfurt | Eric Johnson | 2 | 606.68 | Communication Skills |
| Technical Skills | External | Passed | Cooleybury | Joseph McIntyre | 3 | 265.73 | Technical Skills |
| Project Management | Internal | Incomplete | Larsonborough | Whitney Morgan DVM | 2 | 673.29 | Project Management |
| Project Management | External | Passed | Powellland | Jon Garcia | 5 | 436.98 | Project Management |
| Technical Skills | External | Passed | Chadport | Nicole Taylor | 4 | 578.58 | Technical Skills |

Create a multi-level pivot table to analyze the "Performance Score" by "BusinessUnit" and "JobFunctionDescription."

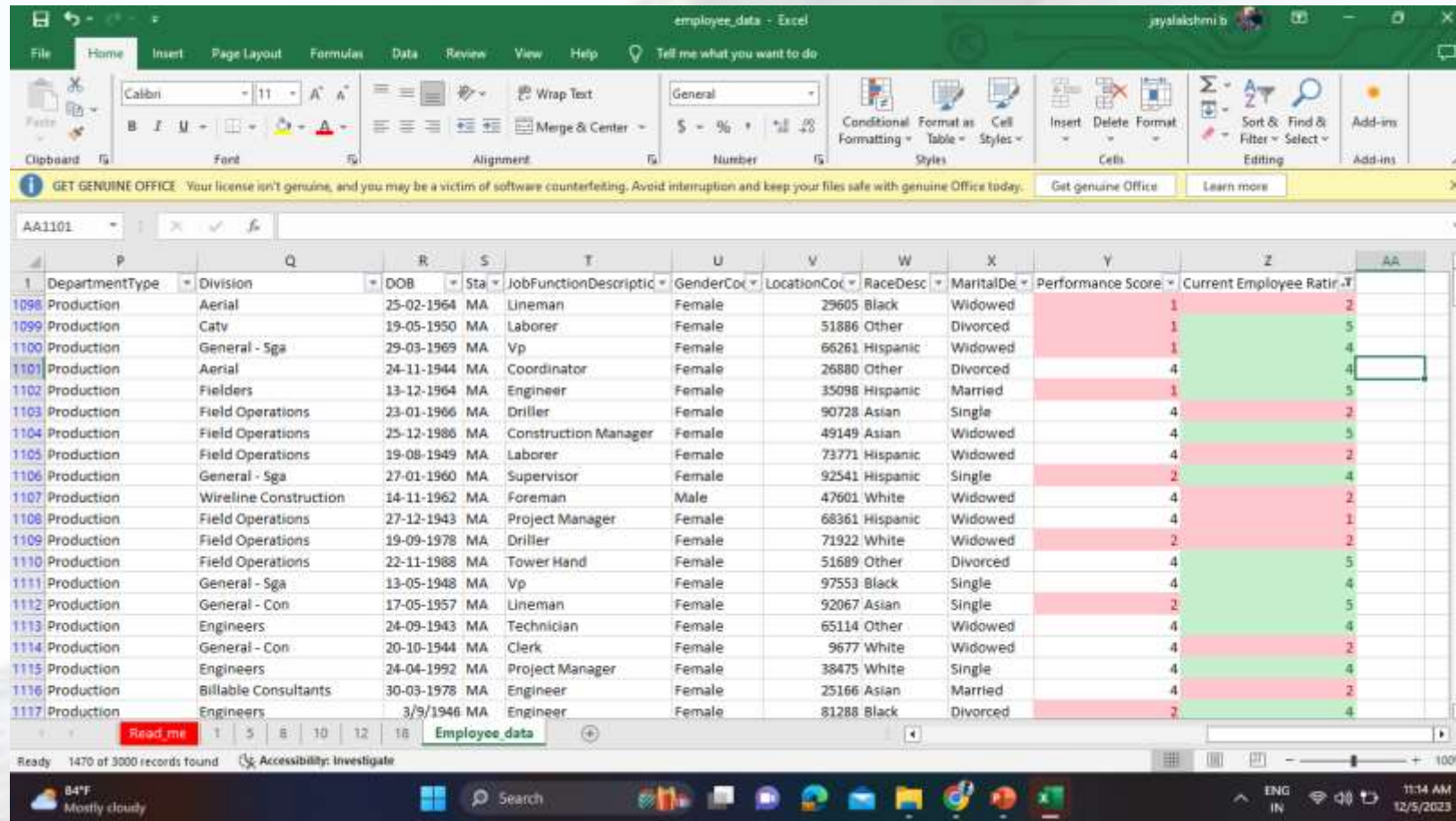
| Count of JobFunctionDescription | BusinessUnit | | | | | | | | | | |
|------------------------------------|--------------|------|-----|-----|-----|-----|-----|-----|-----|-----|----------------|
| Performance Score | BPC | CCDR | EW | MSC | NEL | PL | PYZ | SVG | TNS | WBL | Grand Total |
| Exceeds | 36 | 39 | 39 | 39 | 30 | 34 | 35 | 46 | 41 | 30 | 369 |
| Fully Meets | 235 | 234 | 240 | 226 | 251 | 241 | 228 | 233 | 233 | 240 | 2361 |
| Needs Improvement | 24 | 17 | 16 | 20 | 11 | 16 | 23 | 20 | 15 | 15 | 177 |
| PIP | 8 | 10 | 7 | 11 | 12 | 10 | 13 | 5 | 8 | 9 | 93 |
| Grand Total | 303 | 300 | 302 | 296 | 304 | 301 | 299 | 304 | 297 | 294 | 3000 |

Calculate the total training cost for each "Training Program Name" and display it in a bar chart

| Training Program Name | Communication Skills | Customer Service | Leadership Development | Project Management | Technical Skills | Grand Total |
|-----------------------|----------------------|------------------|------------------------|--------------------|------------------|-------------|
| Sum of Training Cost | 365023.24 | 320575.04 | 323902.03 | 343313.17 | 323072.61 | 1675886.09 |



Apply advanced conditional formatting to highlight the top 10% and bottom 10% of employees based on "Current Employee Rating."



The screenshot displays an Excel spreadsheet titled "employee_data - Excel" with a ribbon menu at the top. The data table has columns for DepartmentType, Division, DOB, Sta, JobFunctionDescriptio, GenderCo, LocationCo, RaceDesc, MaritalDe, Performance Score, and Current Employee Rating. The 'Current Employee Rating' column (column Z) is highlighted with conditional formatting: red for ratings 1 and 2, green for ratings 3, 4, and 5. The status bar at the bottom indicates "Ready 1470 of 3000 records found".

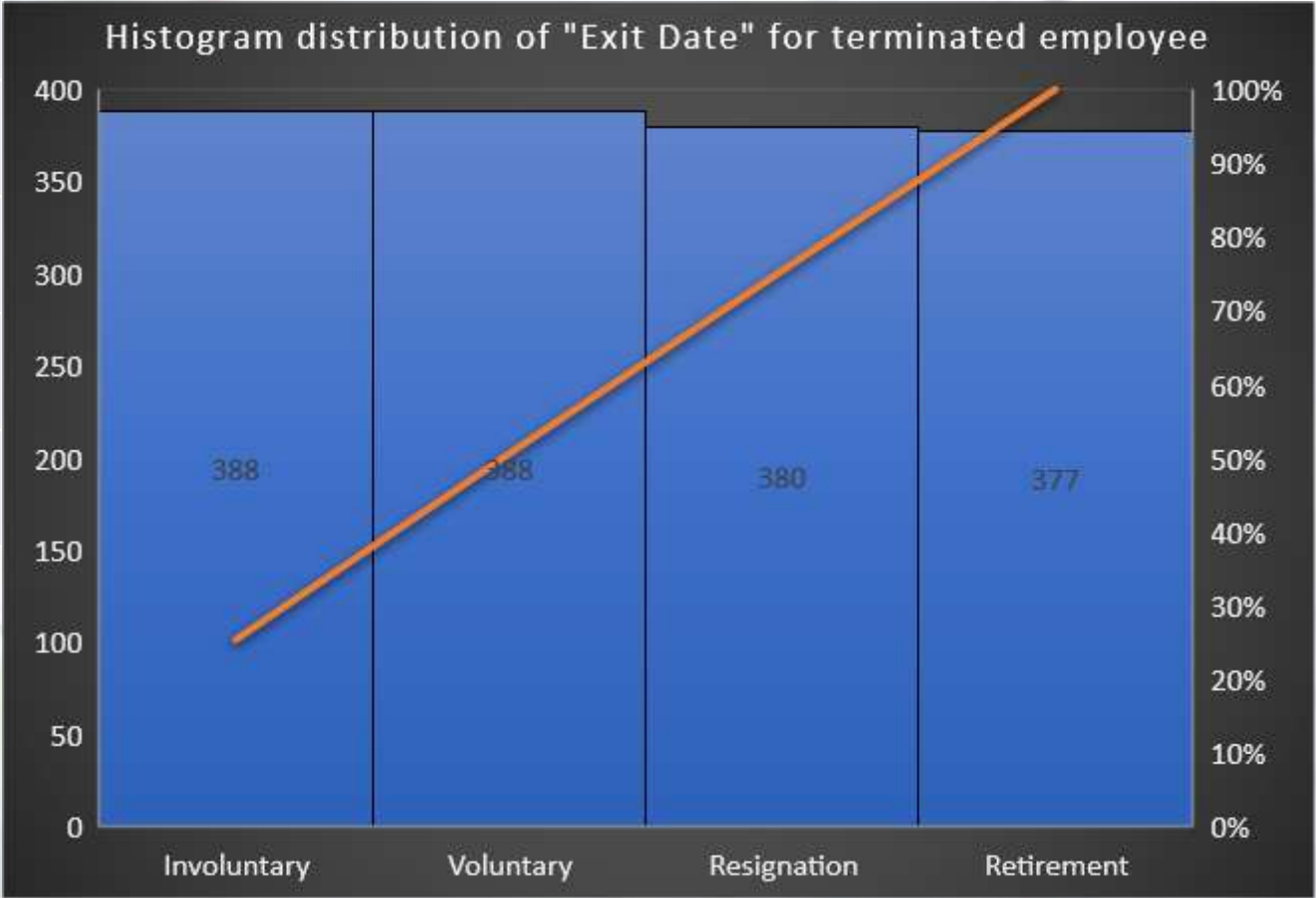
| | P | Q | R | S | T | U | V | W | X | Y | Z | AA |
|------|----------------|-----------------------|------------|-----|-----------------------|----------|------------|----------|-----------|-------------------|-------------------------|----|
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Use a calculated field in a pivot table to determine the average "Engagement Score" per year

| Average of Engagement Score | 2022 | 2023 | Grand Total |
|-----------------------------|-------|-------|-------------|
| Qtr1 | | 2.902 | 2.902 |
| Qtr2 | | 3.014 | 3.014 |
| Qtr3 | 2.963 | 2.940 | 2.954 |
| Qtr4 | 2.892 | | 2.892 |
| Grand Total | 2.918 | 2.954 | 2.940 |

Create a histogram to understand the distribution of "ExitDate" for terminated employees

| TerminationType | Count of ExitDate |
|-----------------|-------------------|
| Involuntary | 388 |
| Resignation | 380 |
| Retirement | 377 |
| Voluntary | 388 |



Develop a dashboard that provides an overview of key HR metrics, including headcount, performance, and training costs, using charts and pivot tables

