Women vs. John: A Battle in the Workplace

HACKERELLAS

TEAM NAME: **HACKARELLAS**

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Gender Proportions by Country
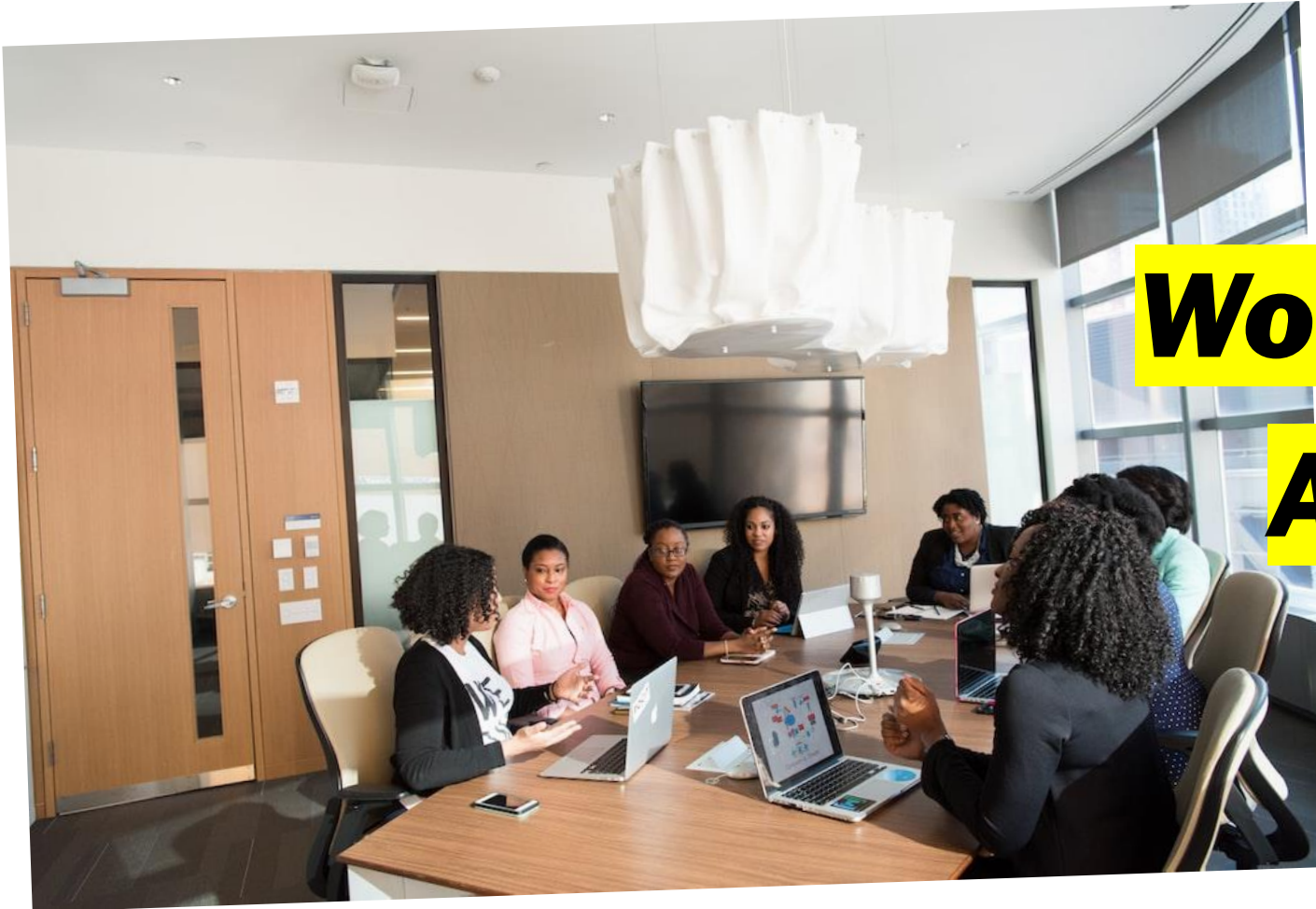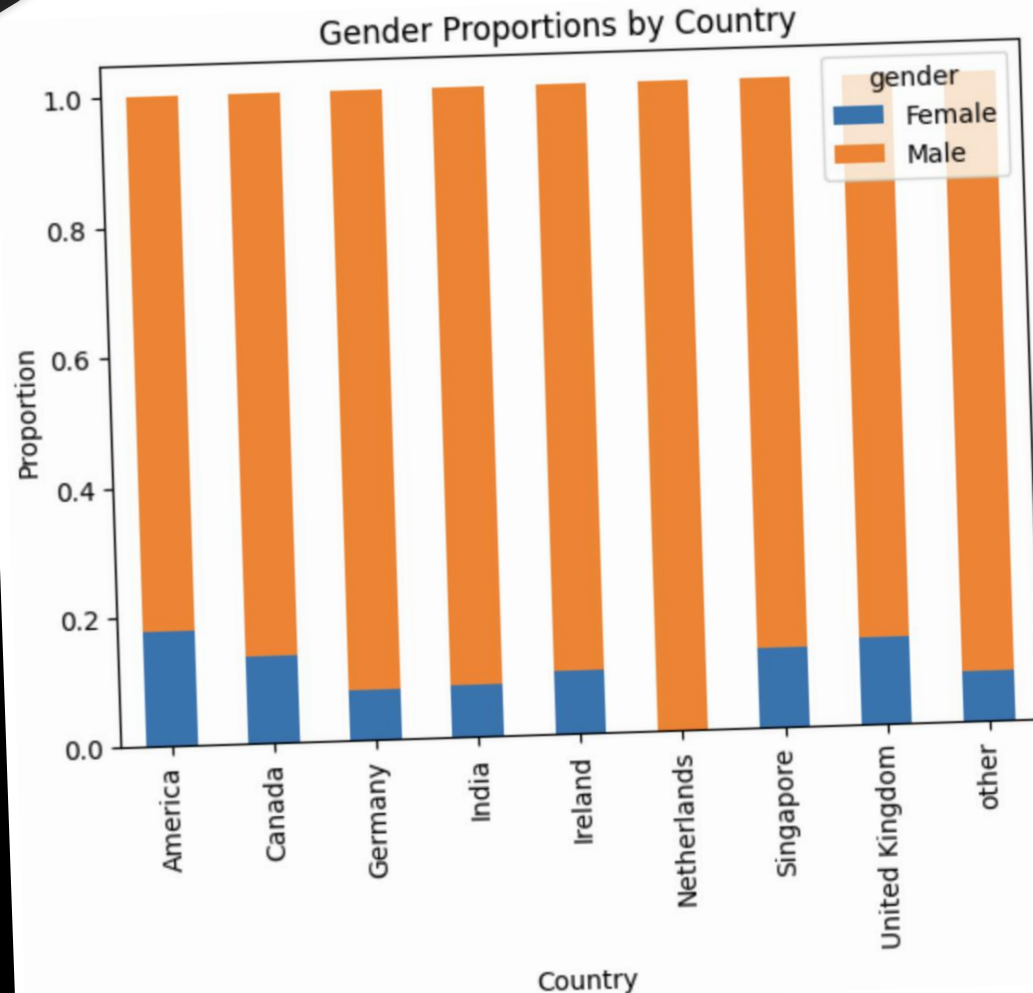
- ❑ Despite significant progress in various domains, **gender inequality remains** in workplaces around the world.

- ❑ According to the World Economic Forum's Global Gender Gap Report, it is estimated that gender equality in the workplace **will not be achieved for another 136 years** if we continue on our current trajectory.

INTRODUCTION

CONTENTS OF THE PRESENTATION

DATA SELECTION / CLEANING

```
            timestamp              company          level  \
0      4/12/2018 16:15:32        GE Digital         Senior
1      4/12/2018 23:19:33            Amazon             L5
2       4/13/2018 6:32:17              Uber             L5
3      4/13/2018 16:28:03         Microsoft             61
4      4/14/2018 13:05:22         Microsoft             60
...                   ...               ...            ...
41733   8/17/2021 7:50:25  Raytheon Technologies        P2
41734   8/17/2021 8:16:36            Amazon             L6
41735   8/17/2021 8:22:17  Fidelity Investments         L3
41736   8/17/2021 8:24:56             Cisco        Grade 8
41737   8/17/2021 8:28:57             Adobe  Software Engineer 5
```

```
            timestamp              company          level  \
0       6/7/2017 11:33:27           Oracle             L3
1      6/10/2017 17:11:29             eBay           SE 2
2      6/11/2017 14:53:57           Amazon             L7
3      6/14/2017 21:22:25        Microsoft             64
4      6/16/2017 10:44:01           Amazon             L5
...                   ...              ...            ...
62637   8/17/2021 8:16:36           Amazon             L6
62638   8/17/2021 8:22:17  Fidelity Investments         L3
62639   8/17/2021 8:24:56            Cisco        Grade 8
62640   8/17/2021 8:26:21             HSBC           GCB5
62641   8/17/2021 8:28:57            Adobe  Software Engineer 5
```

Selected Data
[41738 rows x 17 columns]

Original Data
[62642 rows x 17 columns]

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```
              timestamp              company             level \
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41736   8/17/2021 8:24:56               Cisco           Grade 8
41737   8/17/2021 8:28:57               Adobe  Software Engineer 5
```

Selected Data
[41738 rows x 17 columns]

- **Remove the records that does not have input for gender**

- **Remove the records that have base_salary equal to 0**

- **Select the 3 companies with more data**
  - Amazon Data Length: 5277
  - Microsoft Data Length: 3497
  - Google Data Length: 2861

- **Select only the software engineers and software engineers managers**
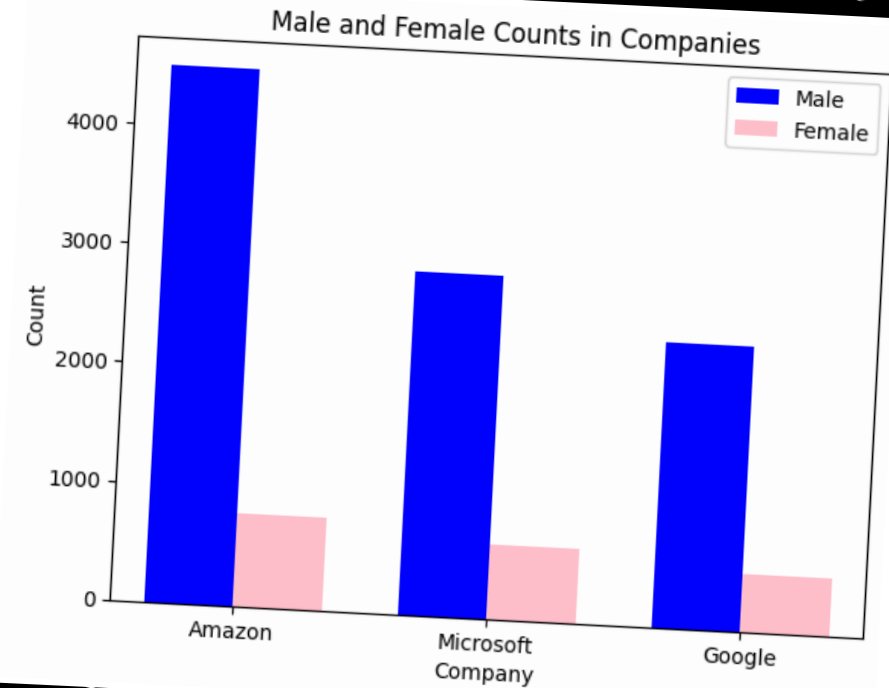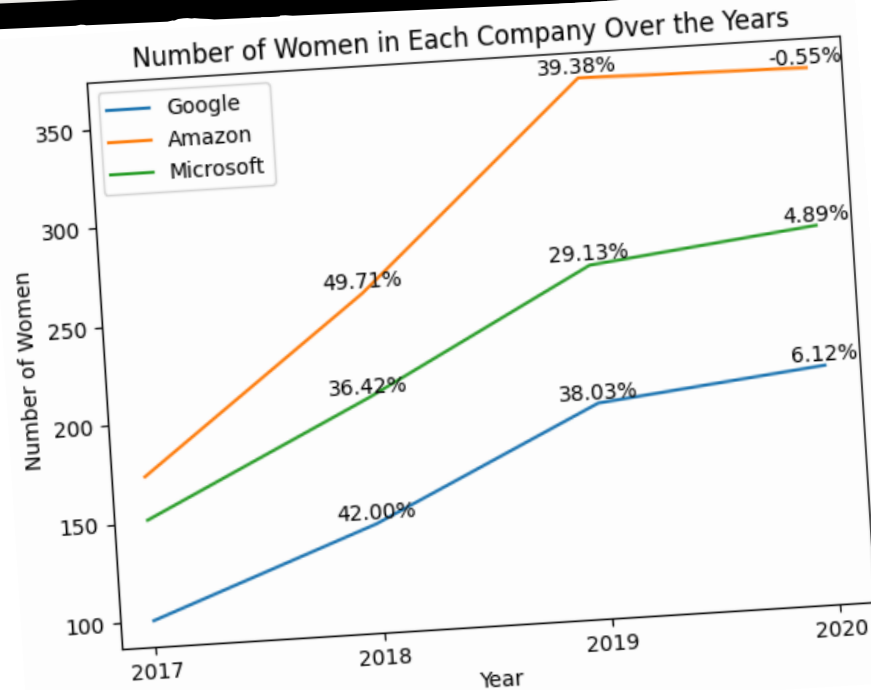 [Software Engineer, Product Manager , Data Scientist, Solution Architect, Product Designer]

DATA SELECTION / CLEANING
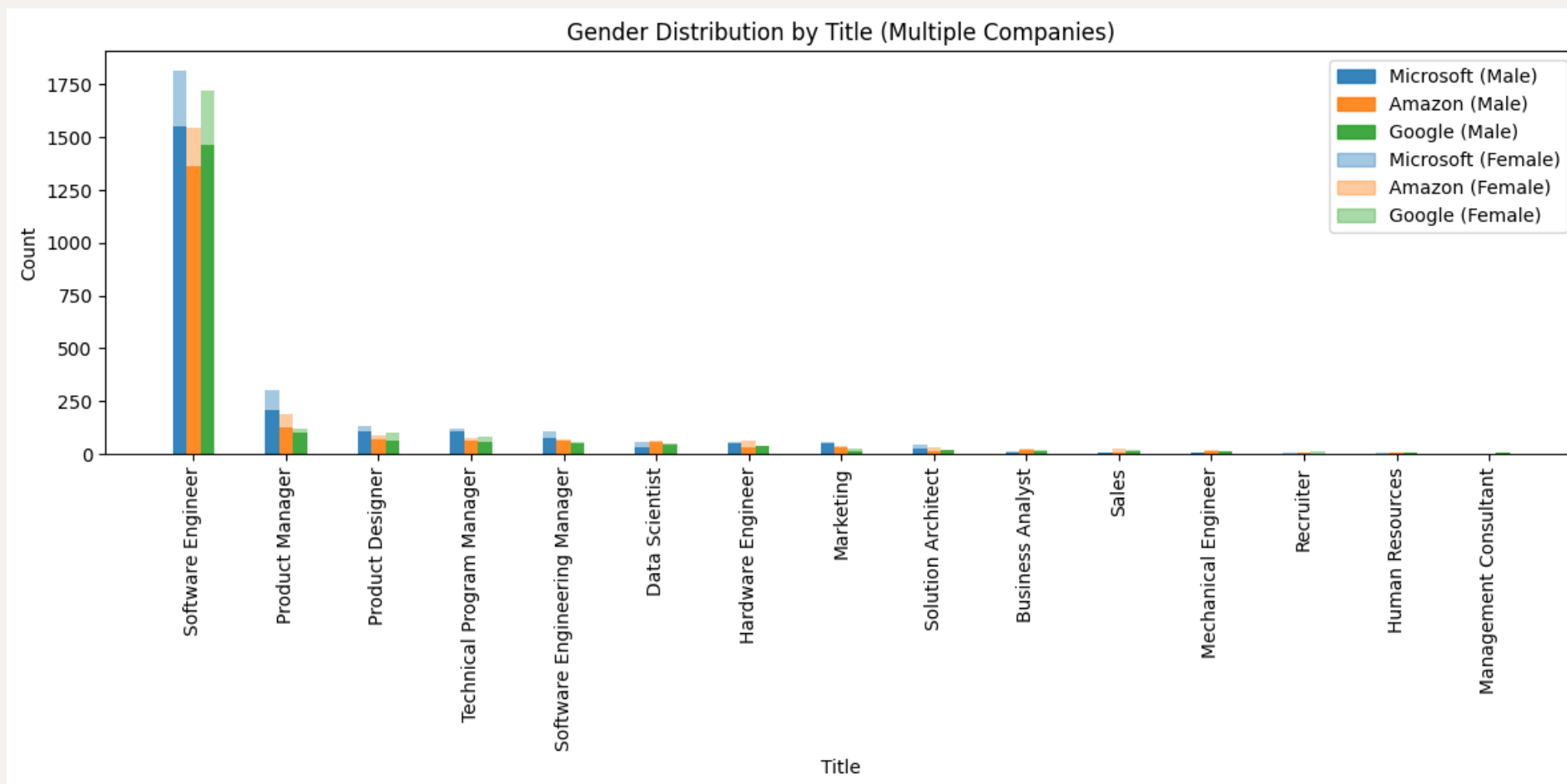
Gender Distribution by Title (Multiple Companies)

- **Select only the software engineers and software engineers managers**
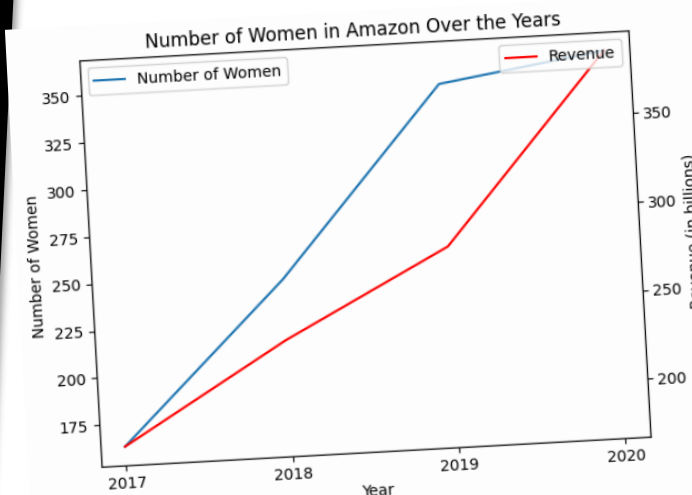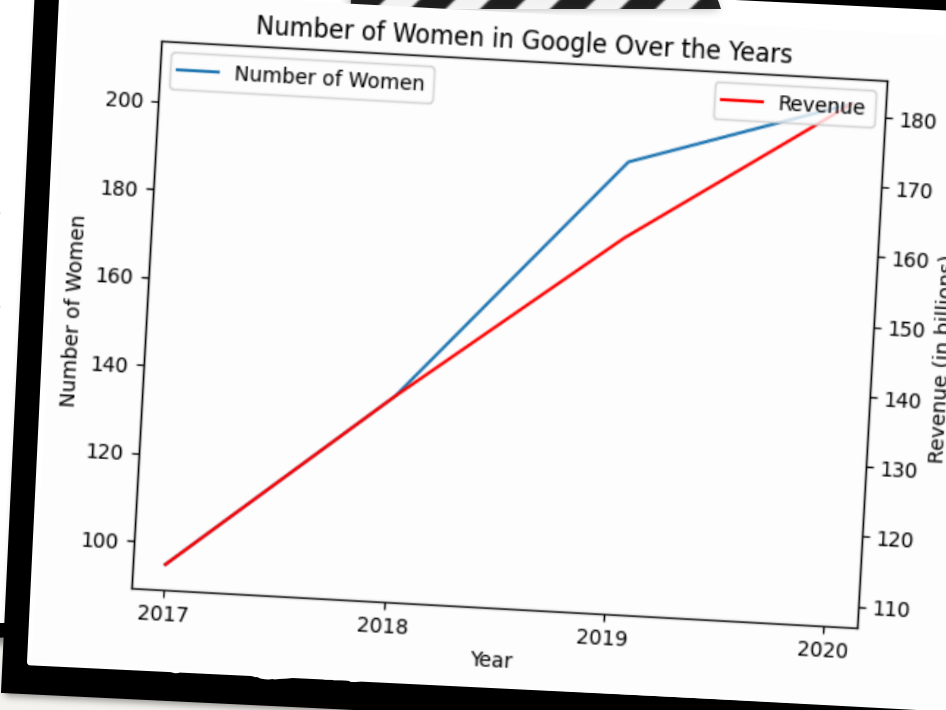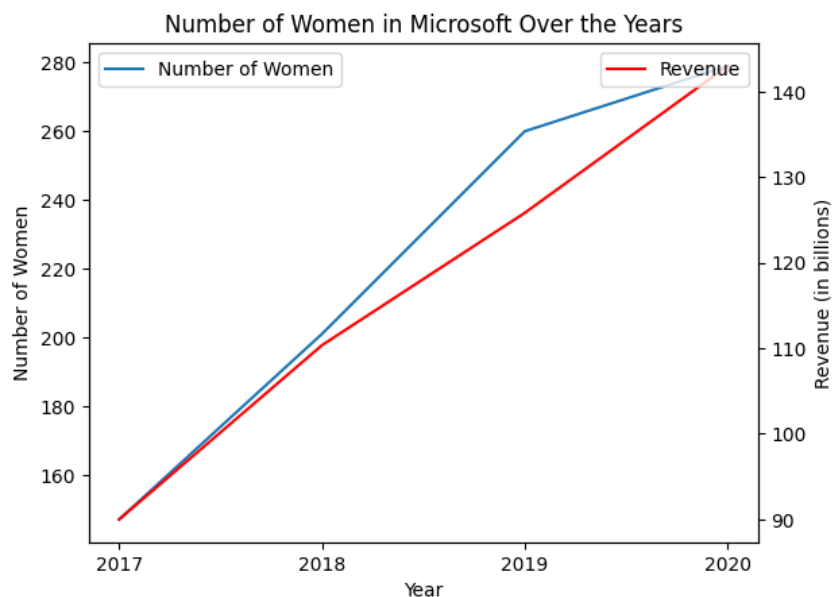
  [Software Engineer, Product Manager , Data Scientist, Solution Architect, Product Designer]

**Number of women in big tech companies**

FACT TIME

"Gender diversity improves financial performance. Companies with diverse boards and leadership teams have been shown to have higher financial returns and improved long-term sustainability."

We can see a positive correlation between the increase of number of women and companies' revenue.
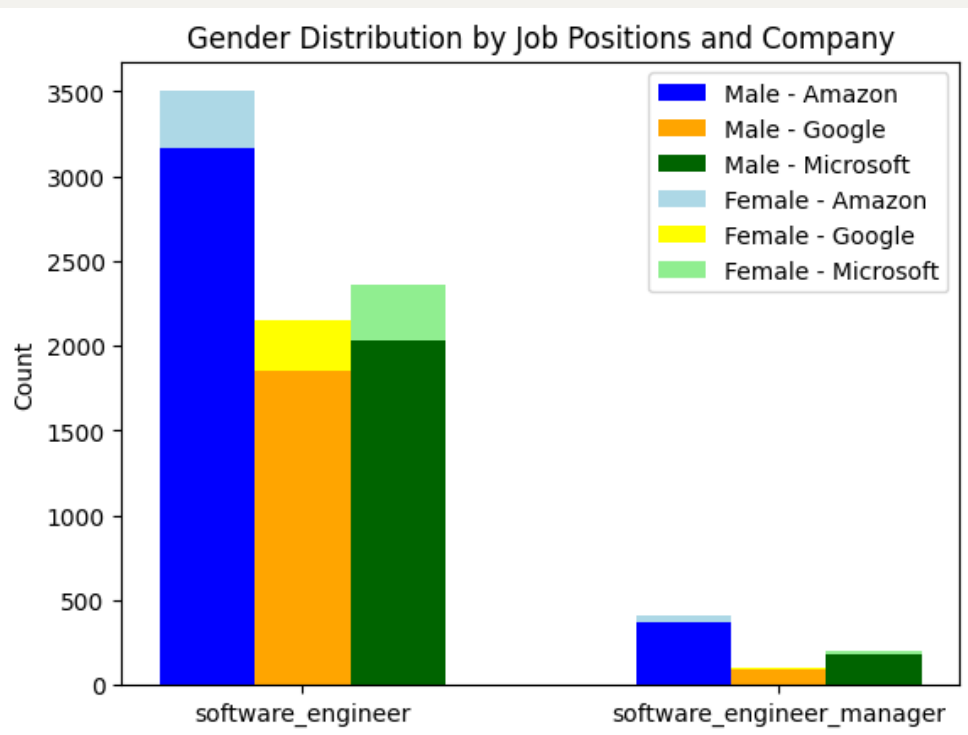
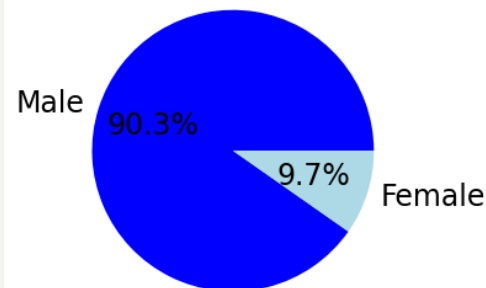# Comparison of people in different leadership levels

Gender Counts by Level
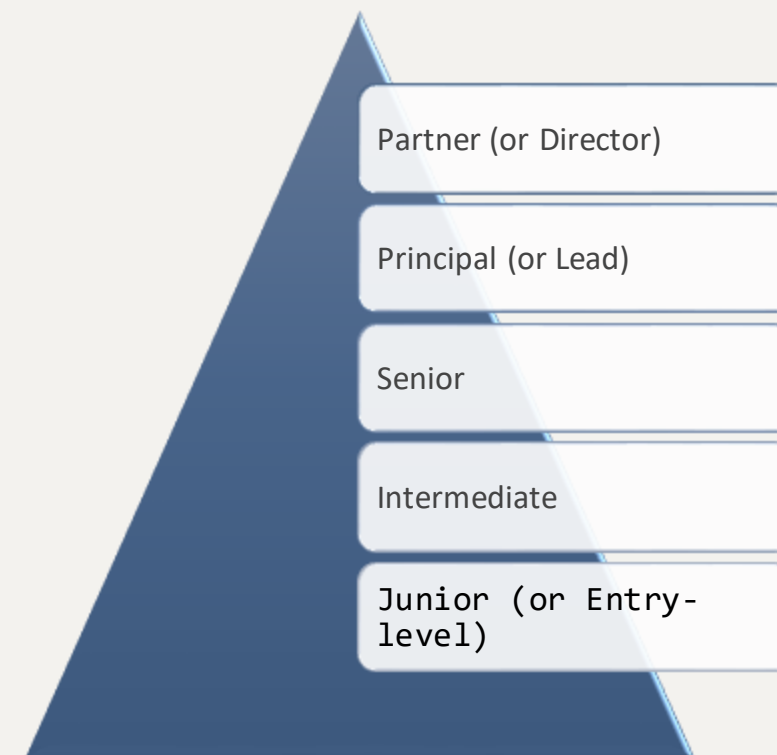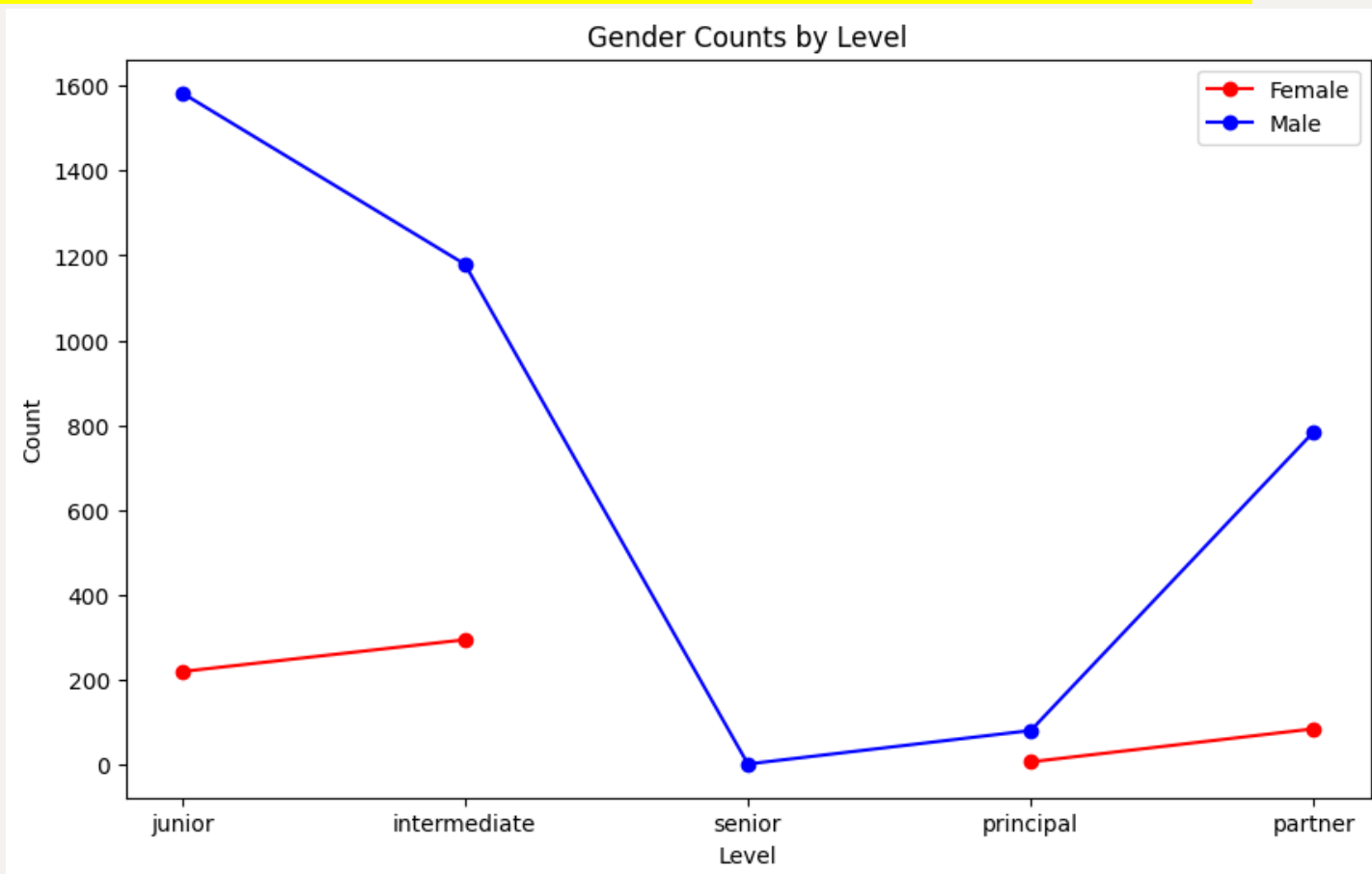
Ranking from lower to higher
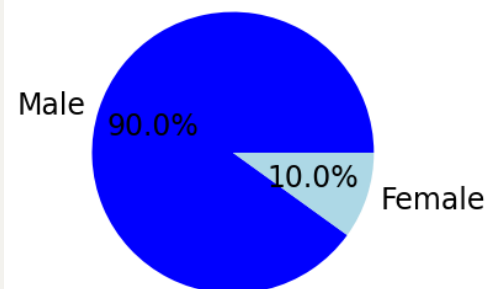
Percentages of women in leadership
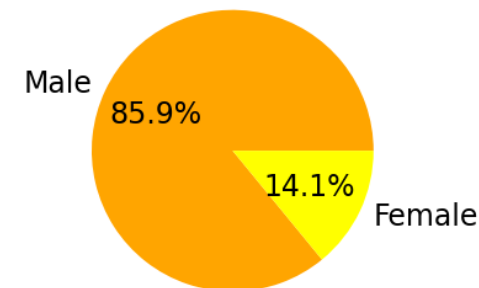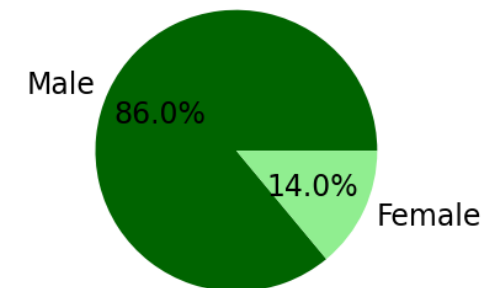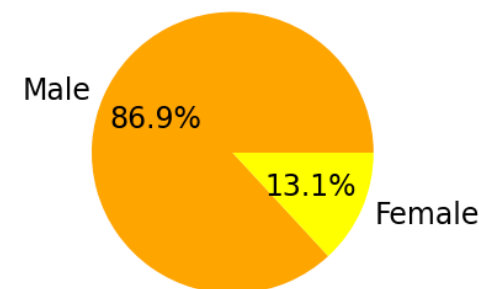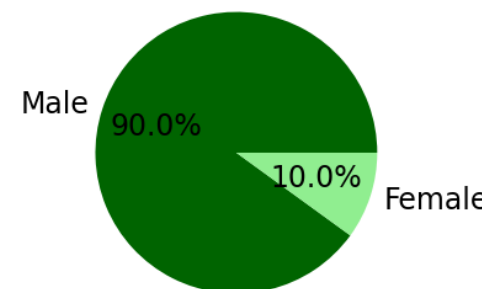
Software Engineers Women: 10-14%
(~ 1/7th of men)
Software Engineers Manager Women: 10-13%
(~ 1/8th of men)

FACT TIME

"Companies with diverse leadership have better employee engagement. Research indicates that organizations with diverse leadership teams experience higher levels of employee engagement and satisfaction."

Ethnic diversity

Top quartile	58
Bottom quartile	43

+35%

Gender diversity

Top quartile	54
Bottom quartile	47

+15%

Gender and ethhnic diversity combined

Top quartile	53
All other quartiles	40

+25%

Source: McKinsey Diversity Database

Gender Proportions of Top 15 titles
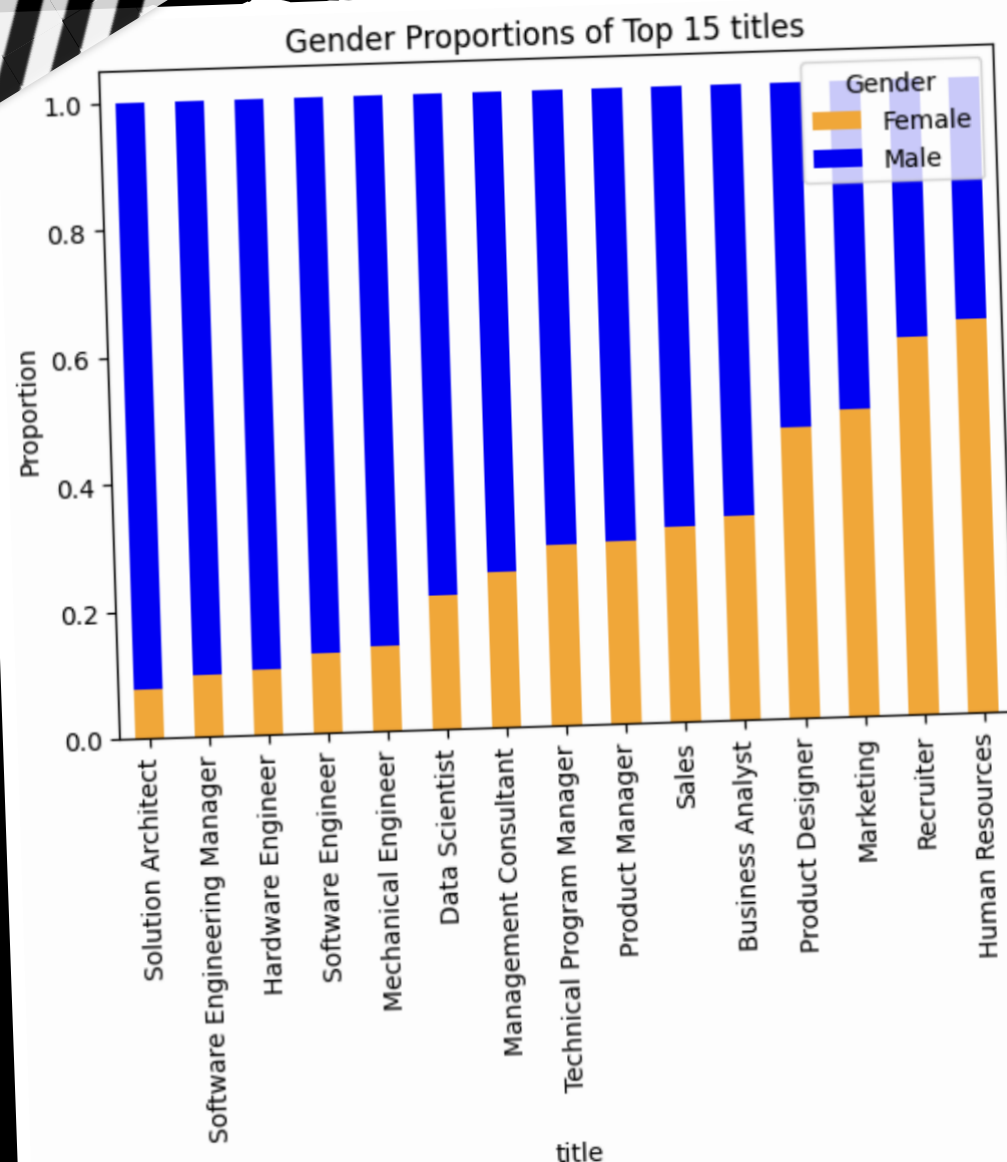
- The gender ratio is relatively balanced in roles such as product designers and marketers

- As the roles become more technical, the proportion of women decreases.

Reasons:

- Gender bias in recruitment？

- Societal influence and educational biases？
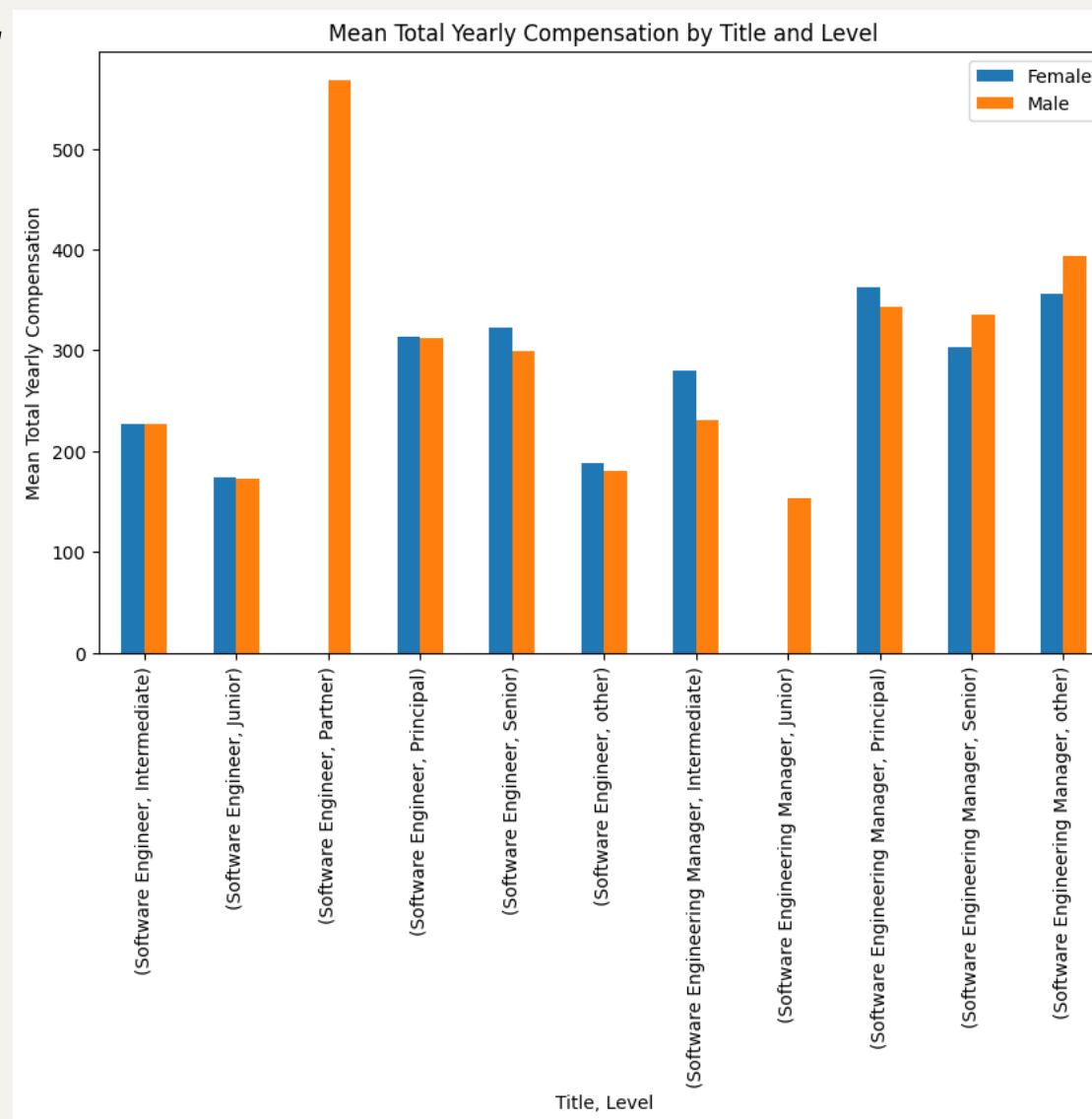
<mark>**DISTRIBUTION OF MEN AND WOMEN IN DIFFERENT POSITIONS**</mark>

COMPARISSON OF SALARY MEN VS WOMEN - AVERAGE

- In the presence of a higher percentage of males and a lower percentage of females, the average salaries do not differ significantly.

- However, what about the maximum salary values?

Mean Total Yearly Compensation by Title and Level

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COMPARISSON OF SALARY MEN VS WOMEN - MAXIMUM

- The difference is significant

- As males are more likely to achieve higher incomes than females within the same position and level

Max Total Yearly Compensation by Title and Level
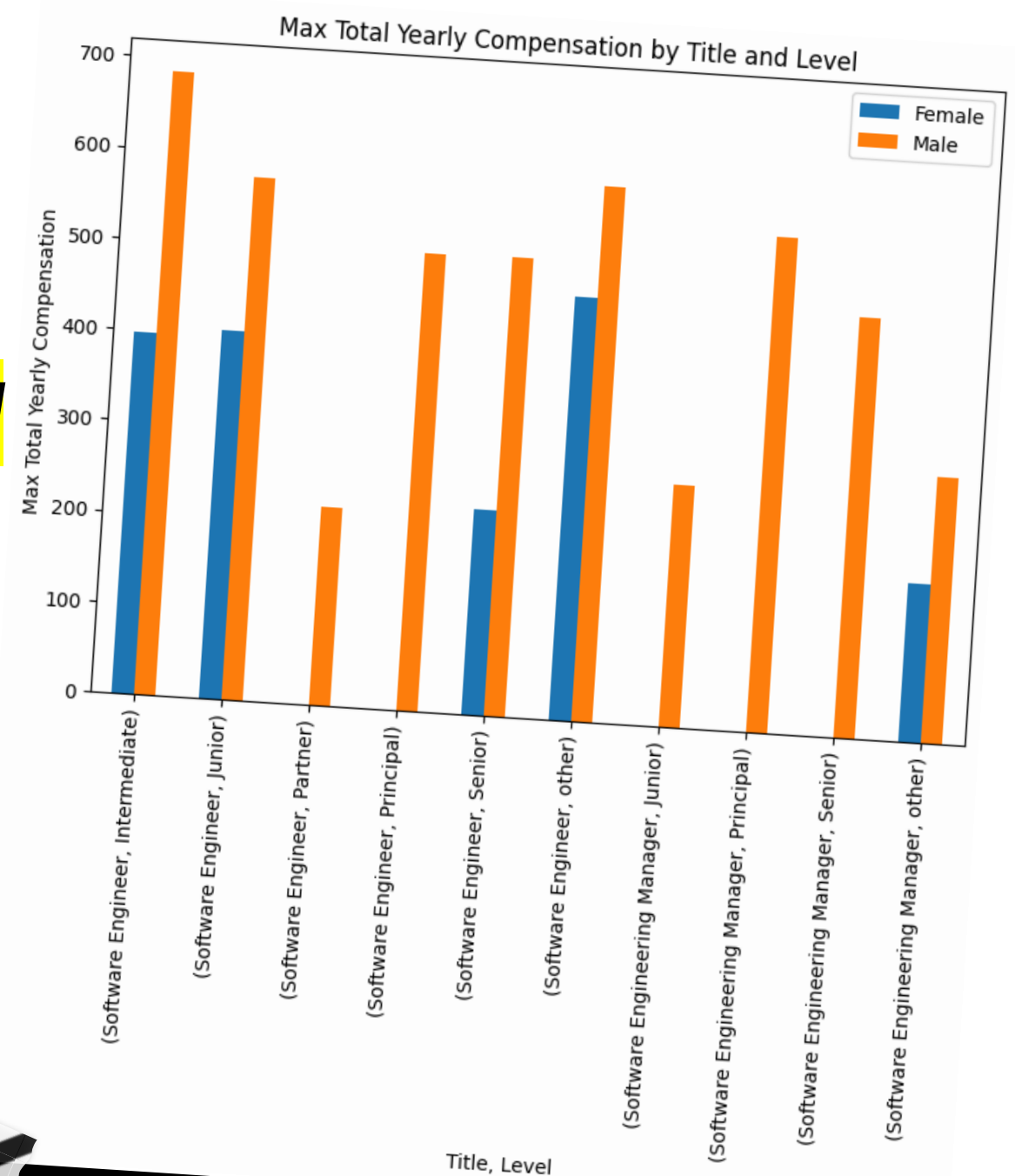
FUN FACT TIME

"The first programmer was a woman. Ada Lovelace, an English mathematician, is credited with writing the world's first algorithm and is often considered the first computer programmer."

TIME FOR SOME SOLUTIONS

Challenges and its solutions:

Women may encounter bias and stereotypes that limit their career options or advancement opportunities.

Implement bias awareness training:

- ❏ Design and deliver tailored programs to educate employees and managers on unconscious biases

- ❏ Fostering mindfulness and reducing gender disparities in recruitment
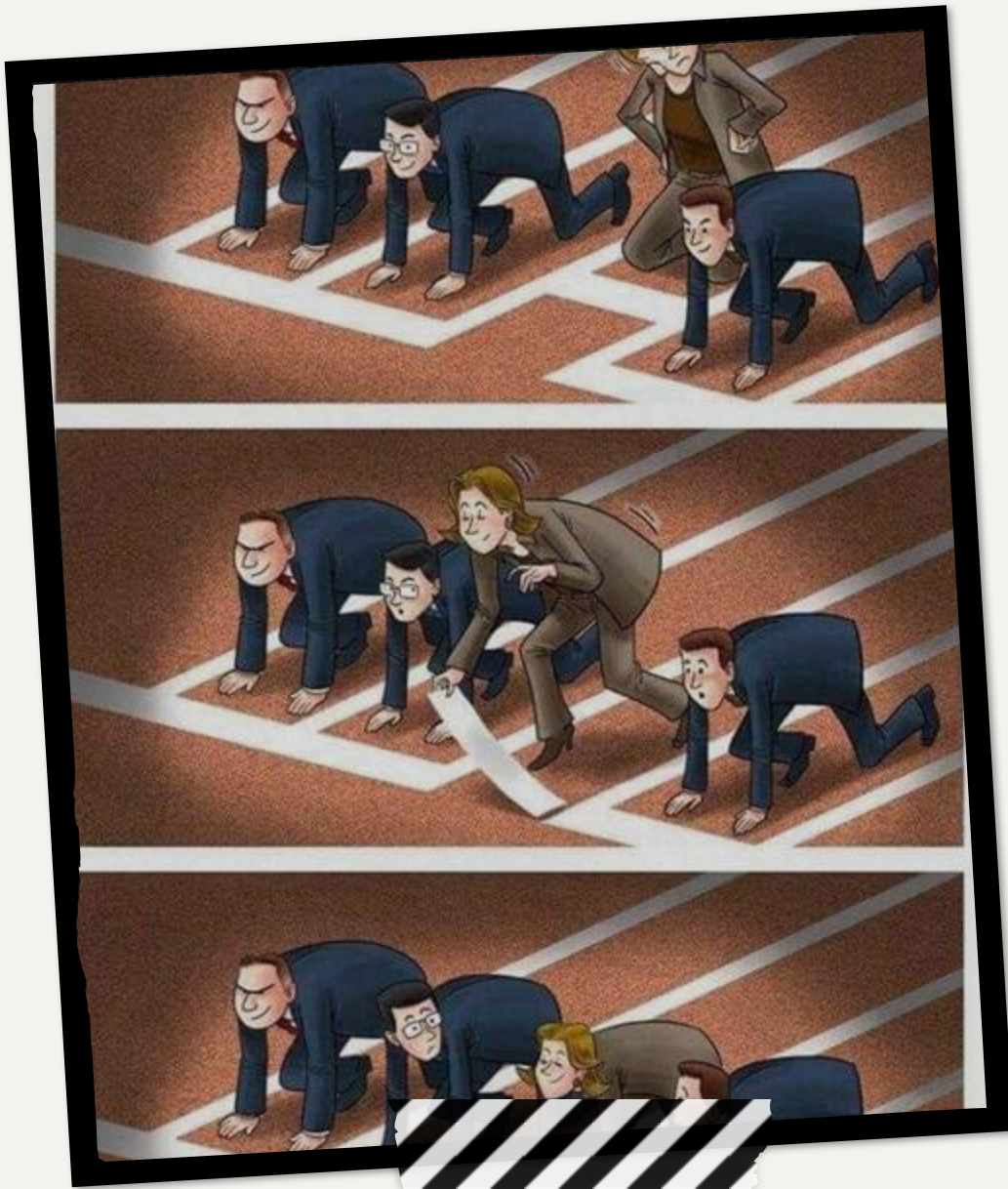
- ❏ Evaluations

- ❏ Promotions

Unequal pay and slower career progression for women can be significant barriers.

❑ Regular salary reviews to ensure equitable compensation
❑ Transparent and fair compensation policies based on objective factors
❑ Promotion of salary ranges for transparency and clarity

The underrepresentation of women in leadership roles can create a perception of limited career prospects.

❑ Introduce flexible work arrangements for work-life balance and women in leadership
❑ Promote visibility and representation of diverse women leaders
❑ Recognize and share their accomplishments
❑ Provide mentoring and role model opportunities

THANK YOU FOR YOUR ATTENTION

We are happy to receive your feedback!