

**INTB233:DATA VISUALIZATION**

**PROJECT REPORT**

(Project Semester August-December 2020)

***HR ANALYSIS DASHBOARD***

Submitted by

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12106958

Computer Science and Engineering

**INTB233**

Under the Guidance of

Assistant Professor

Baljinder Kaur : 27952

**Discipline of CSE/IT**

**Lovely School of Computer Science**

**Lovely Professional University, Phagwara**



**L** OVELY  
**P** ROFESSIONAL  
**U** NIVERSITY

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## **CERTIFICATE**

This is to certify that Akash Kumar bearing Registration no. 12106958 has completed **INTB233** project titled, “***HR ANALYSIS DASHBOARD***” under my guidance and supervision. To the best of my knowledge, the present work is the result of his/her original development, effort and study.

**Signature and Name of the Supervisor**

**Designation of the Supervisor**

**School of .....**

Lovely Professional University

Phagwara, Punjab.

Date: 18-04-2024

## Acknowledgement:

We would like to express our sincere gratitude to Baljinder Kaur for their guidance and support.

Their teachings was instrumental in making the dashboard.

Special thanks go to School of Computer Science and Engineering for introducing the course.

Their quality brought specific outcome to fruition.

Lastly, we acknowledge the support and encouragement of the teachers for their commitment to upskills in particular domain. Their guidance has been invaluable throughout this project.

This project would not have been possible without the collective efforts of everyone involved. We are truly grateful for your contributions and dedication.

Sincerely,

Akash Kumar  
12106958

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# Introduction

Welcome to our HR Analysis Dashboard. Built on Tableau Desktop, this dashboard provides a dynamic and intuitive interface for exploring key HR metrics, facilitating data-driven decision-making, and optimizing workforce management strategies. From recruitment and retention to performance evaluation and talent development, this dashboard offers a bird's-eye view of our human capital landscape, empowering HR professionals and organizational leaders alike to uncover trends, identify opportunities, and drive meaningful outcomes. With customizable visualizations and interactive features, this dashboard equips you with the actionable insights needed to foster a productive and engaged workforce, ultimately contributing to our organization's success.

## Objectives/Scope of the Analysis

- 1) How many people are in each Job according to data we have?
- 2) Gender distribution like how many male and females are there for each?
- 3) Age spread of our staff that how many of person are between that age ?
- 4) Which jobs pay more in all the fields?
- 5) Top earners by job means which employees get the highest pay in that particular field?
- 6) Qualification vs. Salary means which qualifications earns more?
- 7) Show the Staff growth trend in the last 5 years
- 8) Filter the Employee name by their first starting letter helps to identify fast
- 9) Show the Leave balance analysis of the employees
- 10) Building the HR Dashboard

## Source of dataset:

The source of the dataset is picked from Kaggle.com .Its data of the employees working the Awesome chocolate company that is establish in US.

## ETL process:

The ETL process stands for Extract, Transform, Load. It's a fundamental component of data warehousing and analytics, involving three key stages

**Extract:** In this stage, data is extracted from Kaggle website of the company . The data extracted may include information on employee demographics, job roles, salaries, performance ratings, training records, attendance, turnover rates, and more.

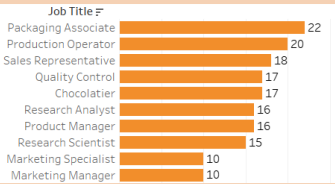
**Transform:** After extraction, the data undergoes transformation to prepare it for analysis in Tableau. This transformation may involve tasks such as cleaning the data to remove duplicates or errors, standardizing formats etc. In my case the data is already cleaned.

**Load:** Once the data is transformed, it is loaded into Tableau for visualization and analysis. Tableau allows users to connect to various data sources and import datasets directly into its environment. Users can then create dashboards and reports by dragging and dropping fields onto the canvas, applying filters, adding calculations, and designing visualizations to convey insights effectively.

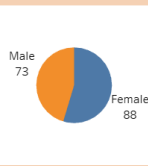
## Analysis on dataset (for each analysis):

# HR Dashboard - Awesome Chocolates

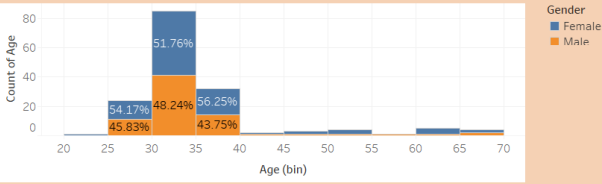
Who works with us?



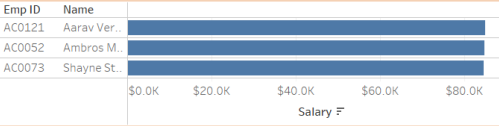
Gender split of our staff



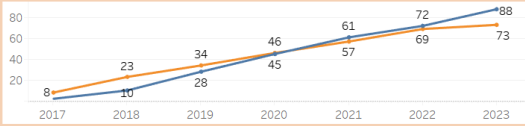
Majority of our staff are 30 to 40 years old



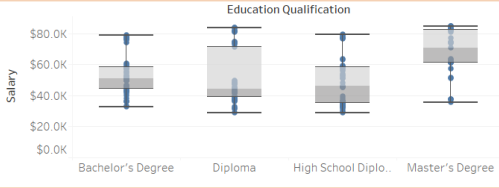
Who gets most money?



How did we grew over time?



Master's degree holders are get paid more

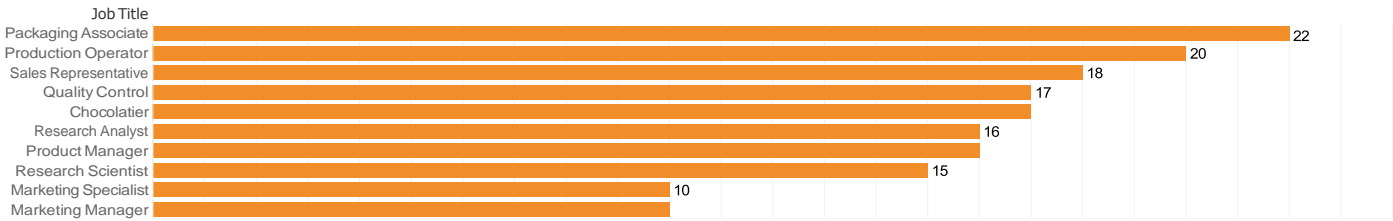


Sales & Marketing people have high leave balances

Job Title	Gender			
	Female		Male	
	Avg. Leave Balan...	Staff with more ...	Avg. Leave Balan...	Staff with more ...
Chocolatier	13.4	1.00	19.0	4.00
Marketing Manager	20.0	2.00	13.8	0.00
Marketing Specialist	17.6	2.00	15.3	1.00
Packaging Associate	16.7	3.00	19.5	3.00
Product Manager	16.1	1.00	14.1	0.00
Production Operator	16.1	0.00	17.9	2.00
Quality Control	13.2	0.00	17.3	1.00
Research Analyst	15.0	0.00	15.7	2.00
Research Scientist	15.0	1.00	20.8	3.00
Sales Representative	17.6	3.00	16.5	0.00

## List of Analysis with results

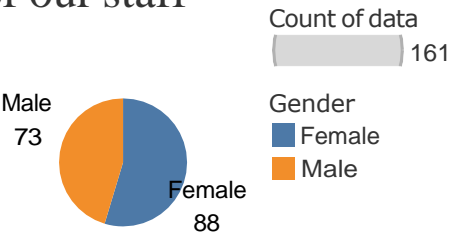
# Who works with us?



Count of data for each Job Title.

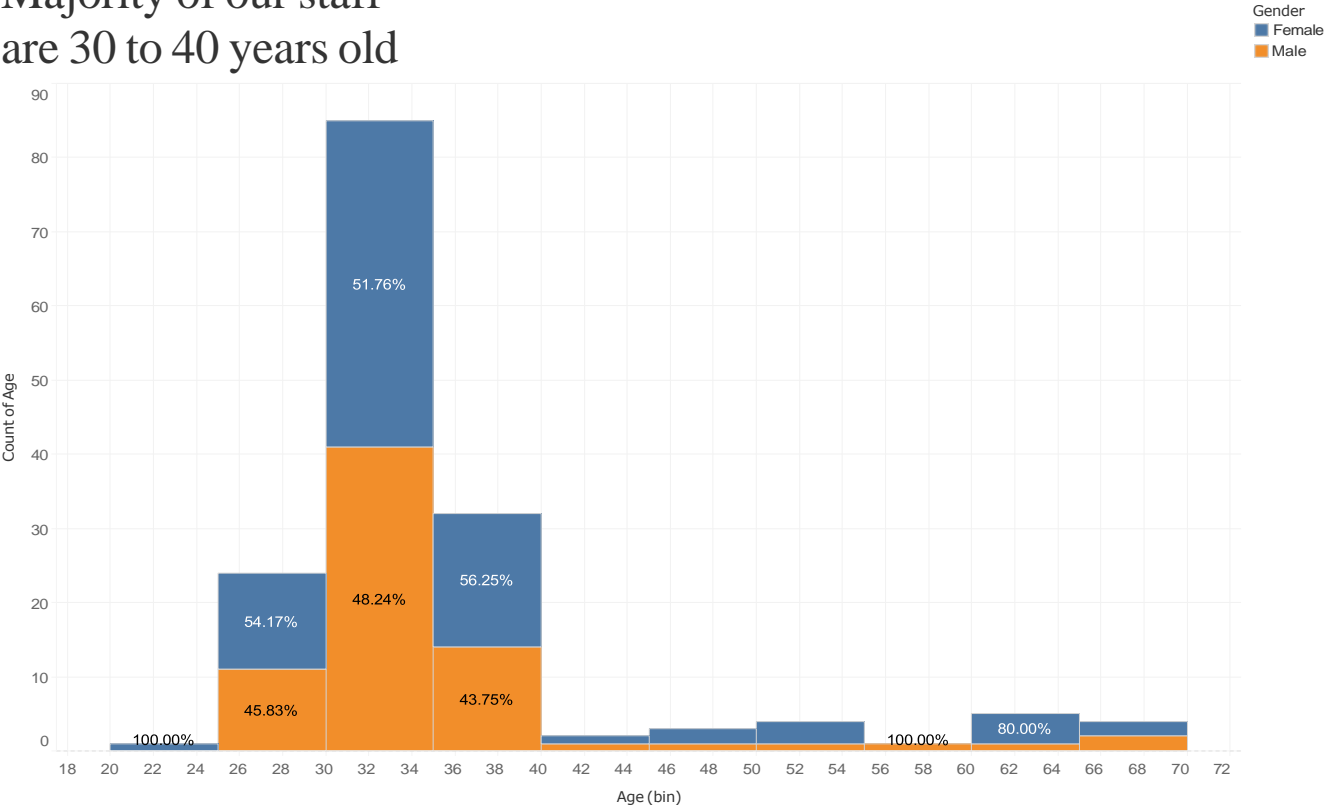


Gender split  
of our staff



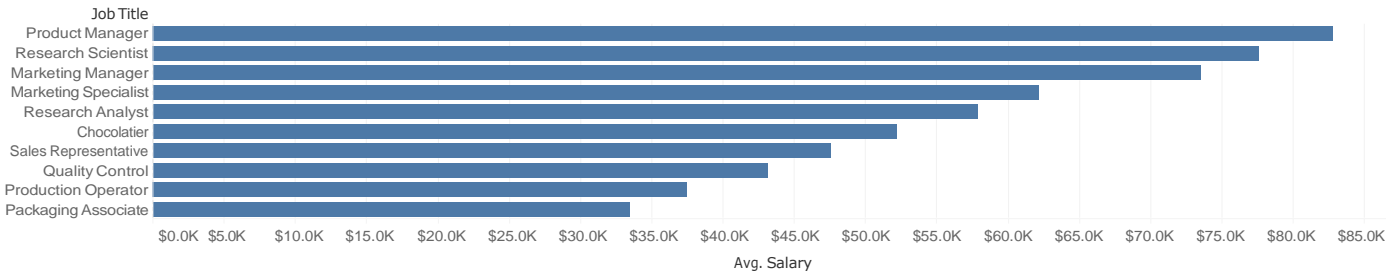
Gender and count of data. Color shows details about Gender. Size shows count of data. The marks are labeled by Gender and count of data. The data is filtered on Action (Job Title), which keeps 10 members.

# Majority of our staff are 30 to 40 years old



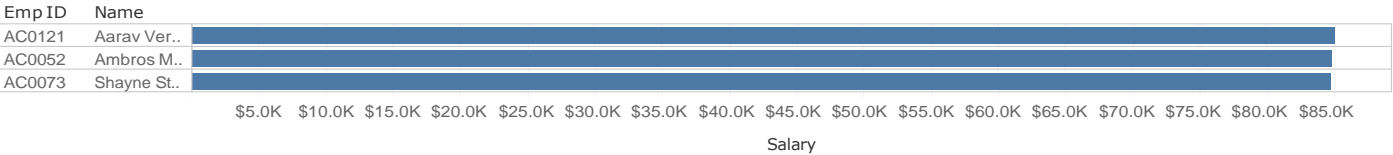
The trend of count of Age for Age (bin). Color shows details about Gender. The marks are labeled by % of Total Count of Age.

# Q4: Which jobs pay more?



Average of Salary for each Job Title.

# Who gets most money?



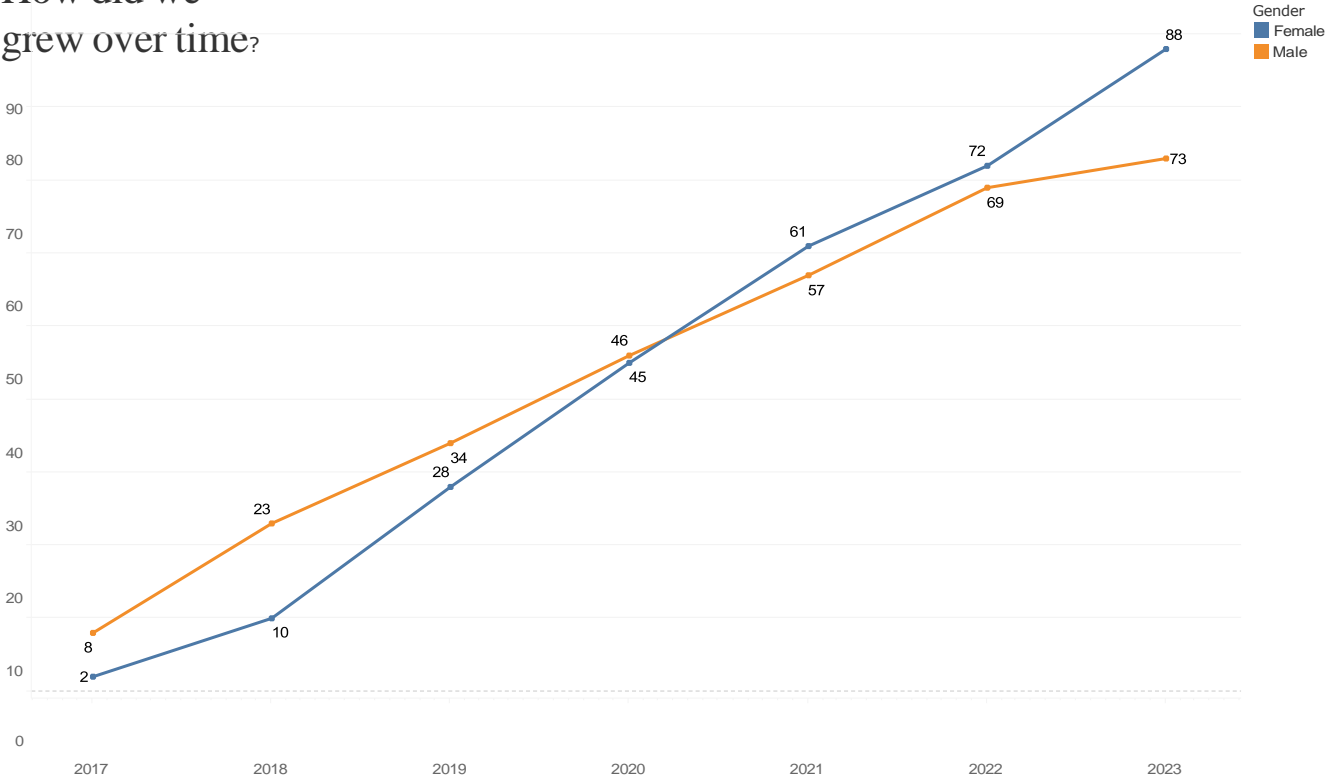
Sum of Salary for each Name broken down by Emp ID. The context is filtered on Action (Job Title) and Job Title. The Action (Job Title) filter keeps 10 members. The Job Title filter keeps 10 of 10 members. The view is filtered on Emp ID, which keeps AC0052, AC0073 and AC0121.

Master's degree holders are get paid more



Sum of Salary  
for each  
Education  
Qualification.  
Details are  
shown for  
Education  
Qualification  
and Emp ID.

How did we  
grew over time?



The trend of Running Sum of Count of data for Date of Join Year. Color shows details about Gender. The marks are labeled by Running Sum of Count of data.

Q8: Employee Filter by Starting Letter

Emp ID	Name	Job Title	Gender	Leave..	Salary
AC0023	Van Tuxwell	Marketing Specialist	Female	23.0	\$62.3K
AC0038	Valentia Etteridge	Packaging Associate	Male	25.0	\$31.9K
AC0043	Vic Radolf	Quality Control	Female	17.0	\$44.8K
AC0044	Virginia McConville	Packaging Associate	Male	15.0	\$29.7K
AC0055	Violante Courtonne	Chocolatier	Female	23.0	\$53.9K

Leave Balance and Salary broken down by Emp ID, Name, Job Title and Gender. The data is filtered on First Letter, which keeps V.

## Sales & Marketing people have high leave balances

Job Title	Gender			
	Female		Male	
	Avg. L..	Staff ..	Avg. L..	Staff ..
Chocolatier	13.4	1.00	19.0	4.00
Marketing Manager	20.0	2.00	13.8	0.00
Marketing Specialist	17.6	2.00	15.3	1.00
Packaging Associate	16.7	3.00	19.5	3.00
Product Manager	16.1	1.00	14.1	0.00
Production Operator	16.1	0.00	17.9	2.00
Quality Control	13.2	0.00	17.3	1.00
Research Analyst	15.0	0.00	15.7	2.00
Research Scientist	15.0	1.00	20.8	3.00
Sales Representative	17.6	3.00	16.5	0.00

Avg. Leave Balance and Staff with more than 20 days broken down by Gender vs. Job Title.

### Bibliography:

[https://www.linkedin.com/posts/akashkumar12516\\_connections-hranalytics-tableau-activity-7186414733741187073-yPaM?utm\\_source=share&utm\\_medium=member\\_desktop](https://www.linkedin.com/posts/akashkumar12516_connections-hranalytics-tableau-activity-7186414733741187073-yPaM?utm_source=share&utm_medium=member_desktop)

Tableau Software. (n.d.). "Tableau Visual Best Practices." Retrieved from <https://www.tableau.com/learn/whitepapers/tableau-visual-analytics-best-practices>