

JOB ANALYTICS

DOMAIN – DATA ENGINEERING

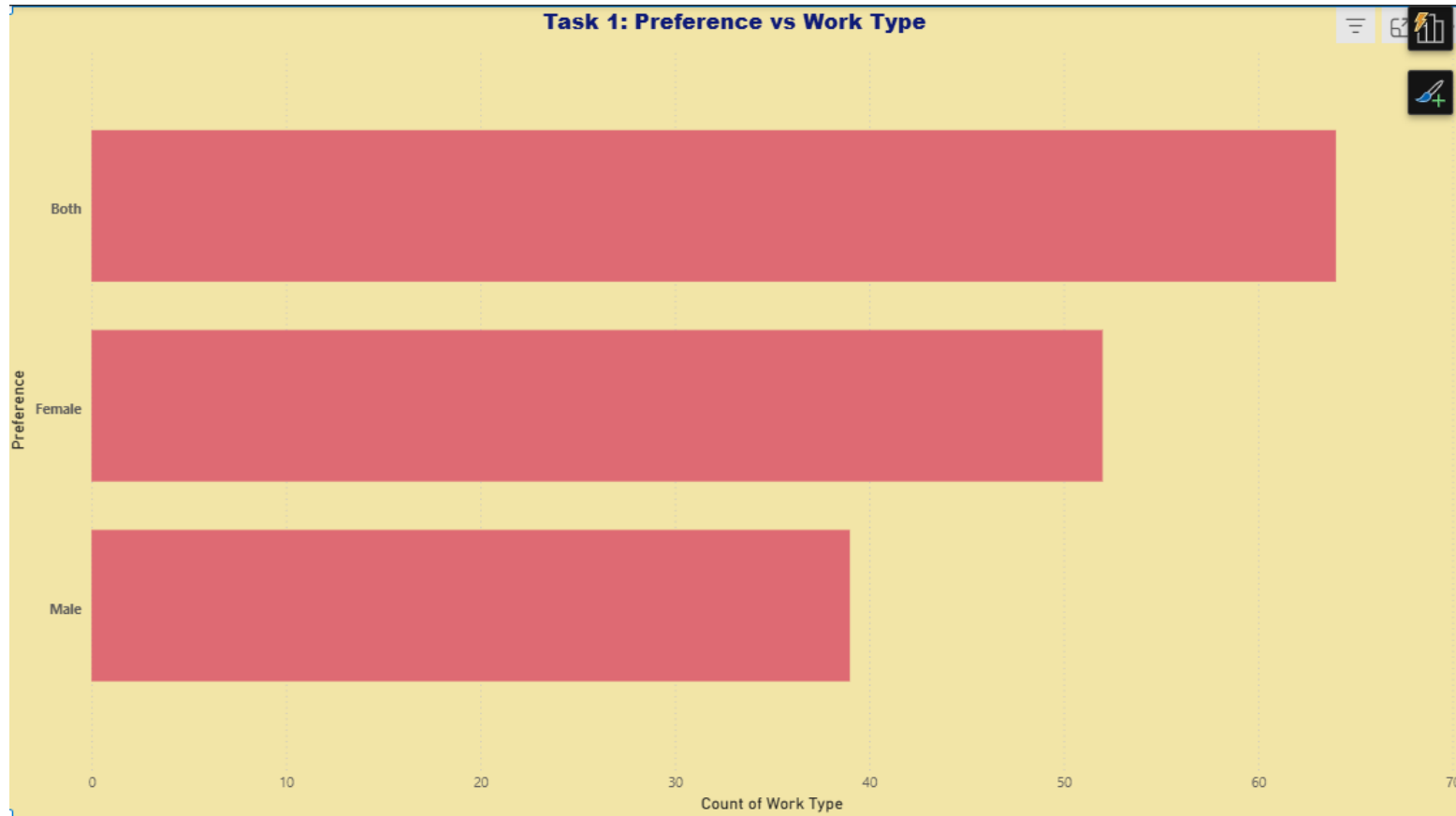
TOOL – Power BI

TASK – 1

Preference vs Work Type (Intern – Bar Chart)

Objective

Analyze internship job postings by Preference under specific geographic, salary, and experience constraints.

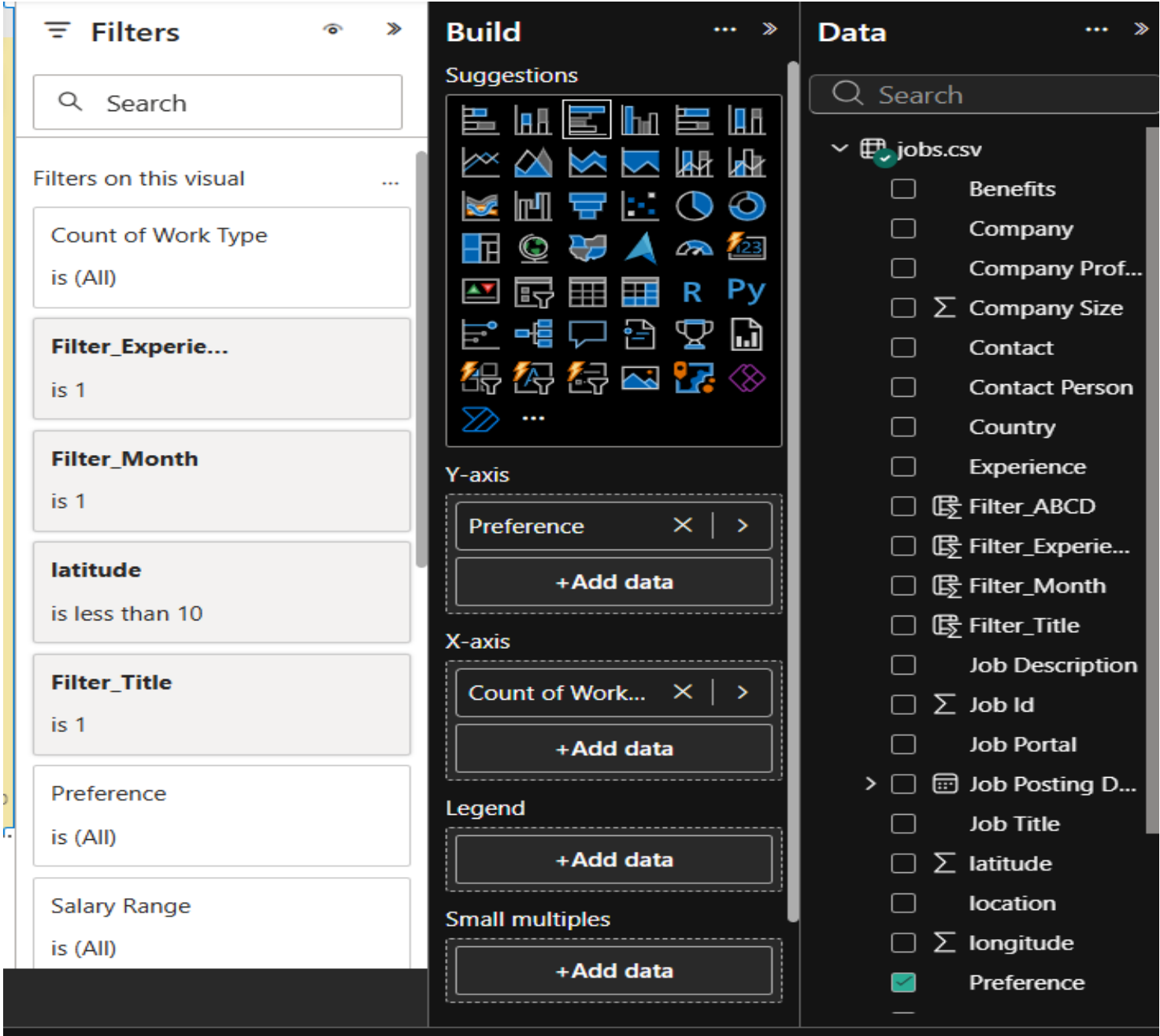


Key Filters

- Work Type: Intern
- Latitude < 10
- Company Size < 50,000
- Salary > \$9,000
- Experience: even numbers only
- Job Posting Month: odd months

Visualization

- Horizontal bar chart
- X-axis: Count of Work Type
- Y-axis: Preference
- Sorted in descending order

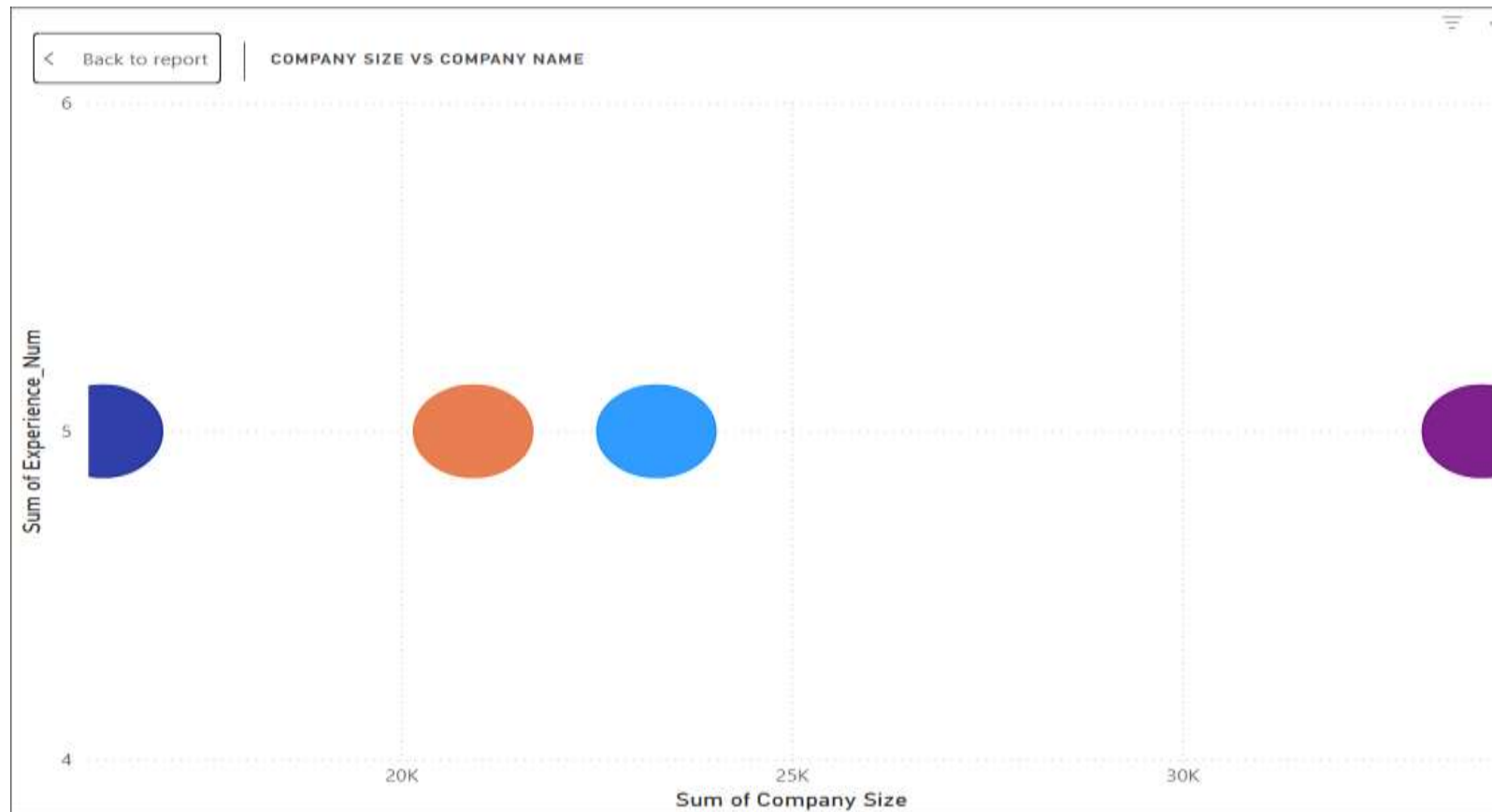


Task - 2

Company Size vs Company Name (Scatter Plot)

Objective

Analyze the relationship between company size and company name for Mechanical Engineer roles under strict job, demographic, and geographic constraints.



Key Filters

- Job Title: Mechanical Engineer
- Company Size < 50,000
- Experience > 5 years
- Salary > \$50,000
- Country: Asia (excluding countries starting with “I”)
- Work Type: Full-Time or Part-Time
- Preference: Male
- Job Portal: Idealist
- Company Name: at least 2 vowels

Visualization

- Scatter Plot
- X-axis: Company Size
- Y-axis: Company Name

The screenshot displays a data visualization tool interface with three main panels: **Filters**, **Build**, and **Data**.

Filters Panel: Contains a search bar and a list of filters applied to the visual. The filters are:

- Company: is (All)
- Company Size: is less than 50000
- Count of Salary Ra...: is (All)
- Country: does not start with...
- Experience: is 5 to 10 Years, 5 t...
- First Company: is (All)
- Job Portal: is Idealist
- Job Title

Build Panel: Contains a suggestions section with various chart types (bar, line, area, pie, etc.) and a section for adding data to the visualization. The sections are:

- Values: +Add data
- X Axis: Sum of Compa... (with a dropdown arrow) and +Add data
- Y Axis: Sum of Experie... (with a dropdown arrow)
- Legend: Company (with a dropdown arrow)
- Size: (empty field)

Data Panel: Contains a search bar and a list of data fields. The fields are:

- jobs csv
- Benefits
- Company
- Company Prof...
- Company Size
- Company_Index
- Contact
- Contact Person
- Country
- Experience
- Experience_N...
- Job Description
- Job Id
- Job Portal
- Job Posting D...
- Job Title
- Latitude
- location
- longitude
- Preference
- Qualifications
- Responsibilities

Task - 3

Top 10 Companies (Tree Map)

Objective

Identify the top 10 companies hiring for Data Engineer and Data Scientist roles under specific qualification, location, and posting constraints.



Key Filters

- Role: Data Engineer
- Job Title: Data Scientist
- Exclude Asian countries
- Exclude countries starting with “C”
- Latitude < 10
- Preference: Female
- Qualification: B.Tech
- Company Size $\geq 10,000$
- Job Portal: LinkedIn
- Job Posting Date: 01/01/2023 – 06/01/2023
- Contact Person: ends with a vowel

Visualization

- Tree Map
- Values: Company Count
- Category: Company Name (Top 10)

[illegible]

Task - 4

Qualification Drilldown Map (Map with Click)

Objective

Visualize job postings in Africa based on qualification and company size using an interactive drilldown map.



Key Filters

- Qualification: B.Tech, M.Tech, PhD
- Work Type: Full-Time
- Country: Africa only
- Job Title starts with “D”
- Preference: Male
- Company Size > 80,000
- Contact Person starts with “A”
- Job Portal: Indeed
- Salary > \$20,000

Visualization

- Map using Latitude & Longitude
- Drilldown enabled for detailed location view

The screenshot displays a data visualization tool interface with three main panels: Filters, Build, and Data.

Filters Panel: Contains a search bar and a list of filters applied to the visual. The filters are:

- Company_Len...**: is greater than 800...
- Count of Job Title**: is (All)
- Country**: is Germany or India
- Experience_N...**: is greater than 2
- Job Portal**: is Indeed
- Job Posting Da...**: is (All)
- Job Title**: is Aerospace Engin...
- location**

Build Panel: Contains a search bar and a list of suggestions. The suggestions are:

- Country**: X | >
- +Add data**
- X-axis**: Count of Job T... X | >
- Legend**: Job Title X | >
- Small multiples**: +Add data
- Tooltips**

Data Panel: Contains a search bar and a list of data fields. The fields are:

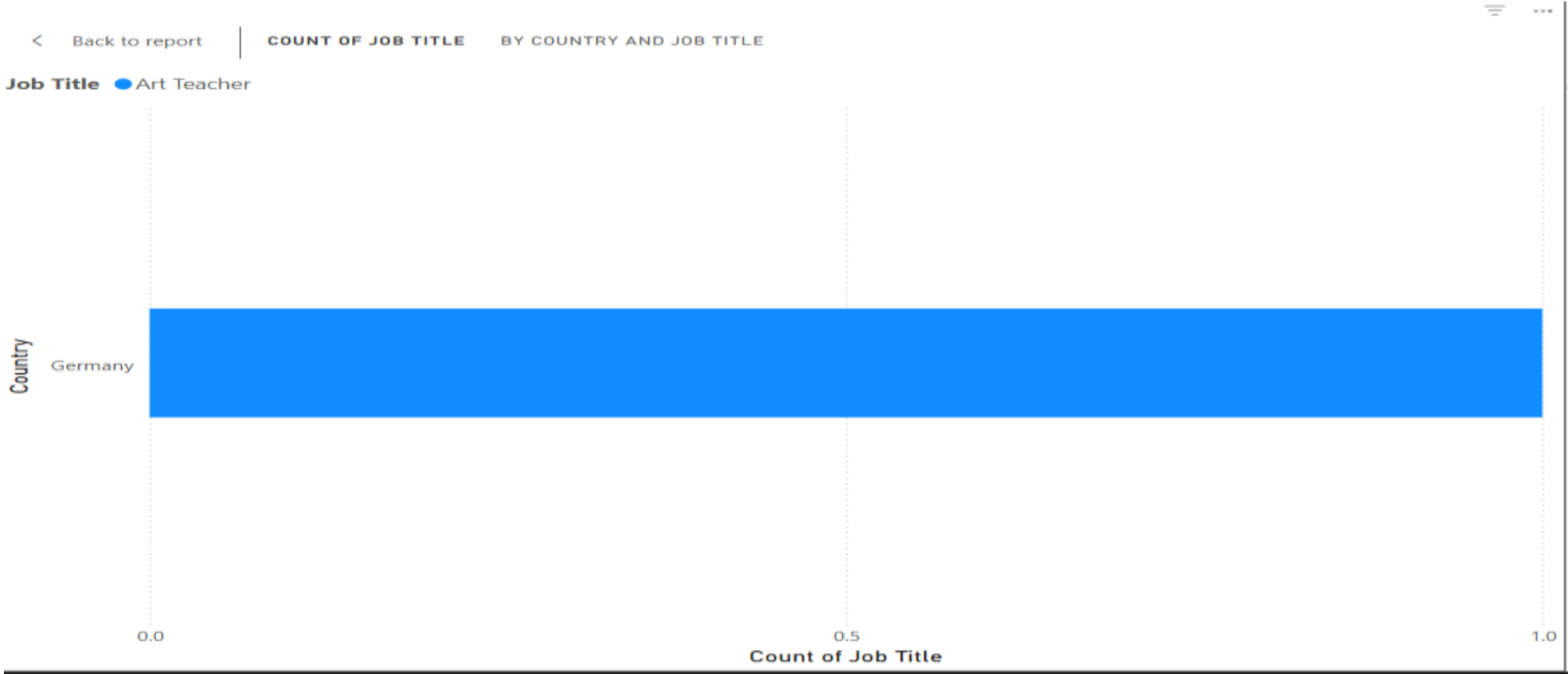
- ☐ Benefits
- ☐ Column
- ☐ Company
- ☐ Company Prof...
- ☐ Company Size
- ☐ Company_Len...
- ☐ Contact
- ☐ Contact Person
- ☒ Country
- ☐ Experience_N...
- ☐ Job Description
- ☐ Job Id
- ☐ Job Portal
- ☐ Job Posting D...
- ☒ Job Title
- ☐ Latitude
- ☐ location
- ☐ Longitude
- ☐ Preference
- ☐ Qualifications
- ☐ Responsibilities

Task – 5

India vs Germany Comparison (Stacked Bar Chart)

Objective

Compare job postings between India and Germany based on qualification, experience, and job role using a stacked bar chart.



Key Filters

- Countries: India and Germany
- Qualification: B.Tech
- Work Type: Full-Time
- Experience > 2 years
- Job Titles: Data Scientist, Art Teacher, Aerospace Engineer
- Salary > \$10,000
- Preference: Female
- Job Portal: Indeed
- Job Posting Date: before 08/01/2023
- Location: not blank
- Company Name: more than 8 characters

Visualization

- Stacked Bar Chart
- India: Orange
- Germany: Green

The screenshot displays a data visualization tool interface with three main panels: Filters, Build, and Data.

Filters Panel: Contains a search bar and a list of filters applied to the visual. The filters are:

- Company_Len...**: is greater than 800...
- Count of Job Title**: is (All)
- Country**: is Germany or India
- Experience_N...**: is greater than 2
- Job Portal**: is Indeed
- Job Posting Da...**: is (All)
- Job Title**: is Aerospace Engin...
- location**

Build Panel: Contains a suggestions section with various chart and table icons. Below this, the Y-axis is set to **Country** and the X-axis is set to **Count of Job T...**. The Legend section shows **Job Title** as a category. The Small multiples section has a **+Add data** button. The Tooltips section is currently empty.

Data Panel: Contains a search bar and a list of data fields. The fields are:

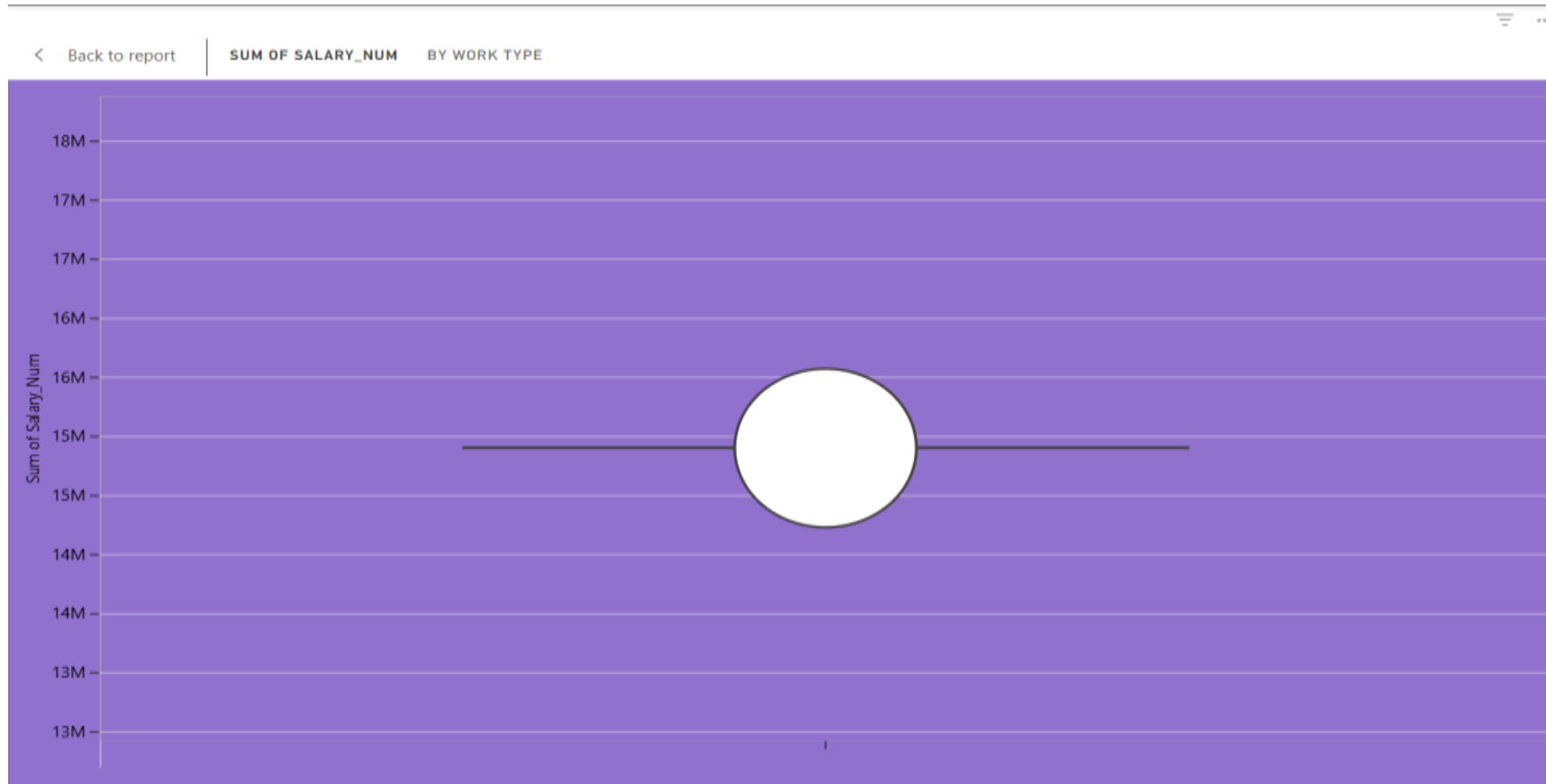
- jobs csv** (expanded):
- ☐ Benefits
- ☐ Column
- ☐ Company
- ☐ Company Prof...
- ☐ Company Size
- ☐ Company_Len...
- ☐ Contact
- ☐ Contact Person
- ☒ Country
- ☐ Experience_N...
- ☐ Job Description
- ☐ Job Id
- ☐ Job Portal
- ☐ Job Posting D...
- ☒ Job Title
- ☐ latitude
- ☐ location
- ☐ longitude
- ☐ Preference
- ☐ Qualifications
- ☐ Responsibilities

Task - 6

Work Type Salary Distribution (Box Plot)

Objective

Analyze salary distribution for internship roles under geographic, experience, and company constraints using a box plot.



Key Filters

- Work Type: Intern
- Latitude < 10
- Country not starting with A, B, C, or D
- Job Title: single word, fewer than 10 characters
- Company Size < 50,000
- Salary > \$8,000
- Experience: even numbers only
- Job Posting Date: between 2021 and 2023
- Contact Person: contains letter “e”

Visualization

- Box-and-Whisker Plot
- X-axis: Work Type
- Y-axis: Salary Range

The screenshot displays a data visualization tool interface with three main panels: Filters, Build, and Data.

Filters Panel: Contains a search bar and a list of filters applied to the visual. The filters are:

- Company Size**: is less than 50000
- Country_OK**: is TRUE
- Experience_Ev...**: is 1
- Has_E**: is TRUE
- Job Posting Da...**: is (All)
- JobTitle_Leng...**: is 9 or 7
- JobTitle_Word...**: is 1
- latitude**

Build Panel: Contains a suggestions section with various chart types, an axis section with 'Work Type' selected, and two axis category sections (I and II) with '+Add data' buttons. The value section shows 'Sum of Salary_...' selected.

Data Panel: Contains a search bar and a list of data fields. The fields are:

- jobs csv** (expanded):
- ☐ Benefits
- ☐ Company
- ☐ Company Prof...
- ☐ Σ Company Size
- ☐ Contact
- ☐ Contact Person
- ☐ Country
- ☐ Country_OK
- ☐ Experience_Ev...
- ☐ Σ Experience_N...
- ☐ Has_E
- ☐ Job Description
- ☐ Σ Job Id
- ☐ Job Portal
- ☒ Job Posting D...
- ☐ Job Title
- ☐ JobTitle_Length
- ☐ JobTitle_Word...
- ☐ Σ latitude
- ☐ location
- ☐ Σ longitude