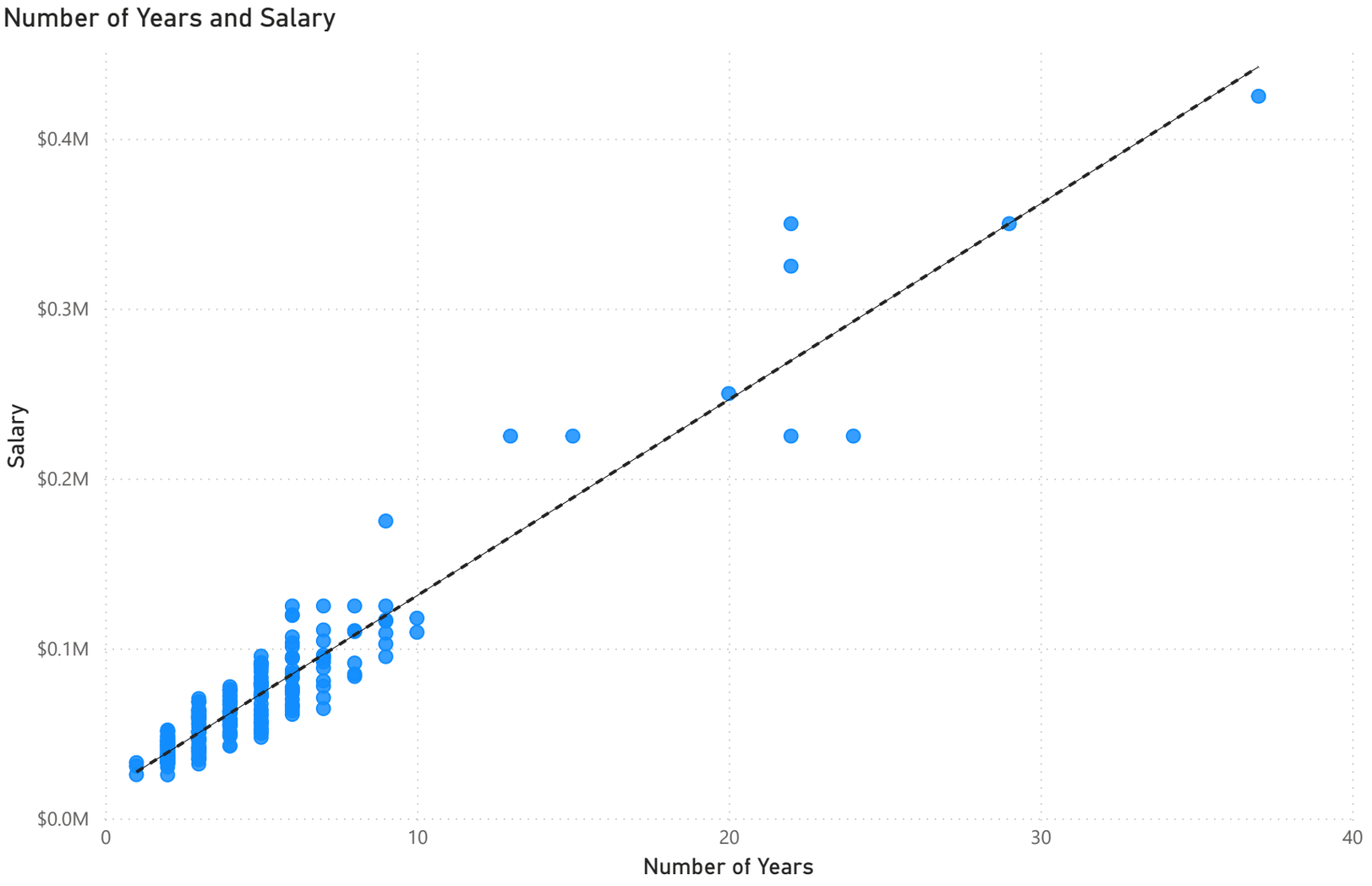
Course 4 Lesson 2: Exercises



0.96

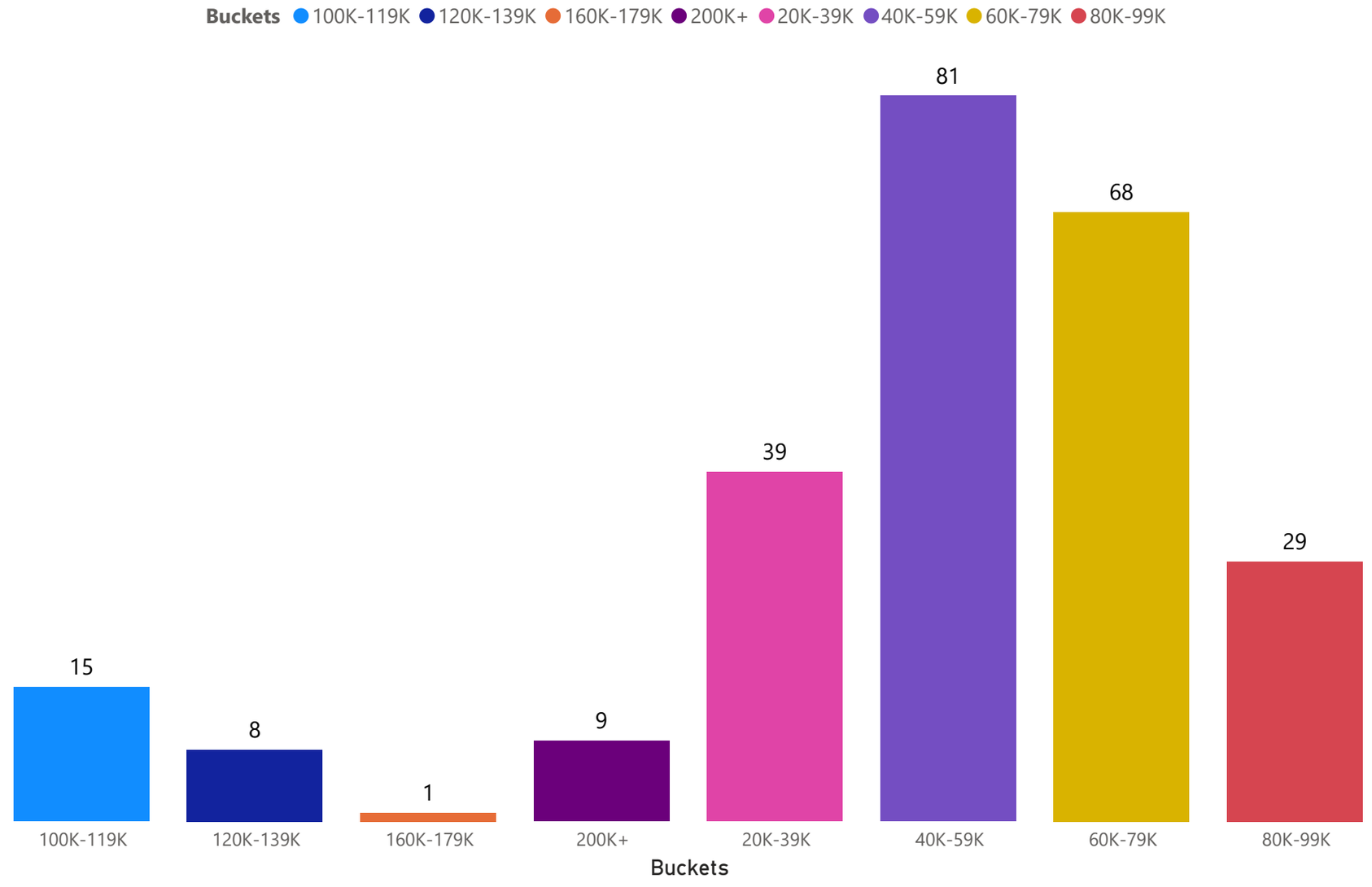
R^2

y=11563.37x + 16004.7

Final Formula

Exercise 2: See how Number of Years (independent variable) affects the Salary (dependent variable). Calculate R^2 and create a linear regression formula

Salary Bin Histogram



$50.28K

Std Deviation

Exercise 3: Construct and create a histogram of the employee salaries with a bin size of $20,000 and calculate standard deviation for the Salary column

Course 4 Lesson 4: Exercises

10

Distinct Countries Cnt

19

Emp Cnt in LA

$20.03K

STDEV of Bonus

Amanda

Emp with Highest Sal

8

Dubai Emp Cnt with Bonus > 5K

Exercise 2: Create DAX Measures to calculate these values

$369.6K

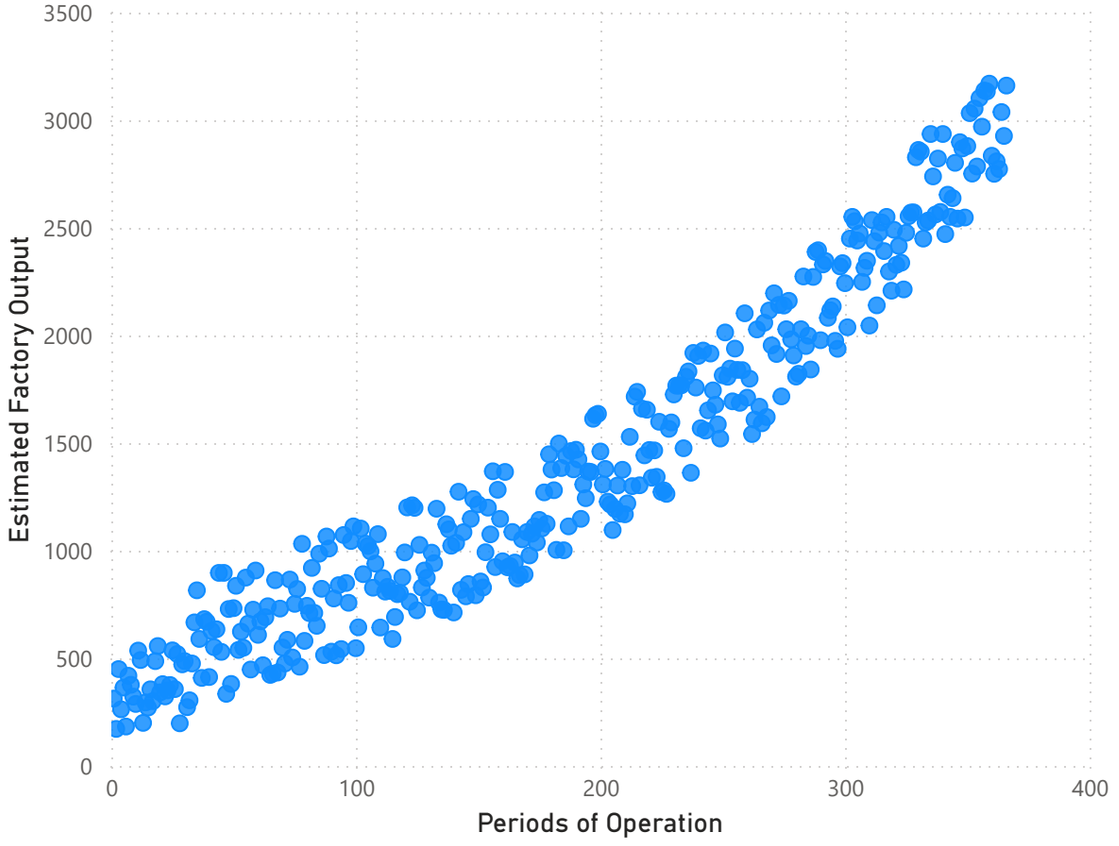
Asia Contractor Expense

Exercise 3:

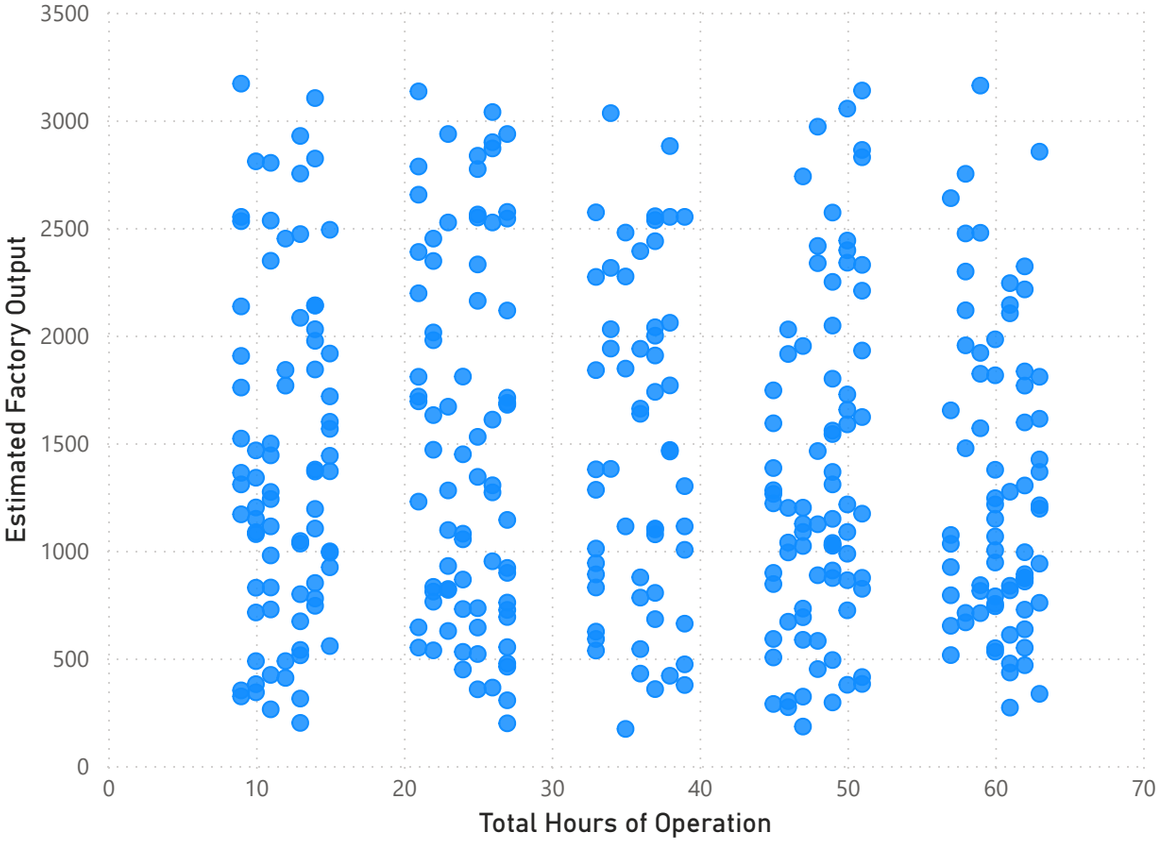
- Created a calculated column to convert each employee's salary to their native currency using provided exchange rates (C4 L3 E3 Dataset)
- Created a calculated table that sums the bonuses by [Location] - Summary Table
- Ranked the bonus amounts by location in descending order in the calculated table (Summary Table)
- Created a calculated measure (Asia Contractor Expense) that sums the total combined salary and bonus expense for employees where the following are all true:
    - Employee based in Asia
    - Salary equal to or greater than $50,000 USD
    - Contract work status
    - Hired prior to 2018

Course 4 Lesson 5: Exercises

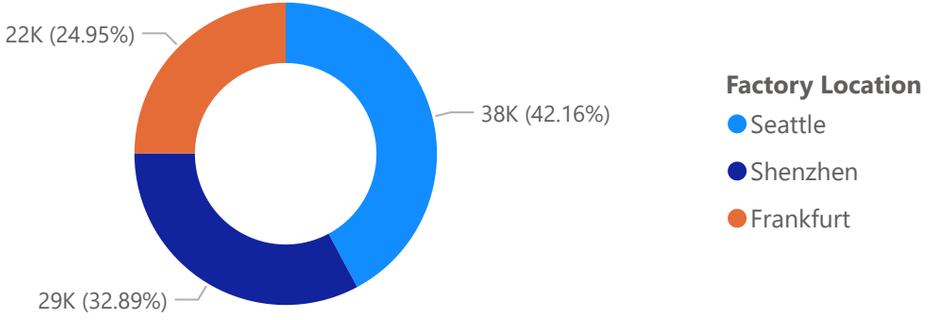
Periods of Operation and Estimated Factory Output



Total Hours of Operation by Estimated Factory Output

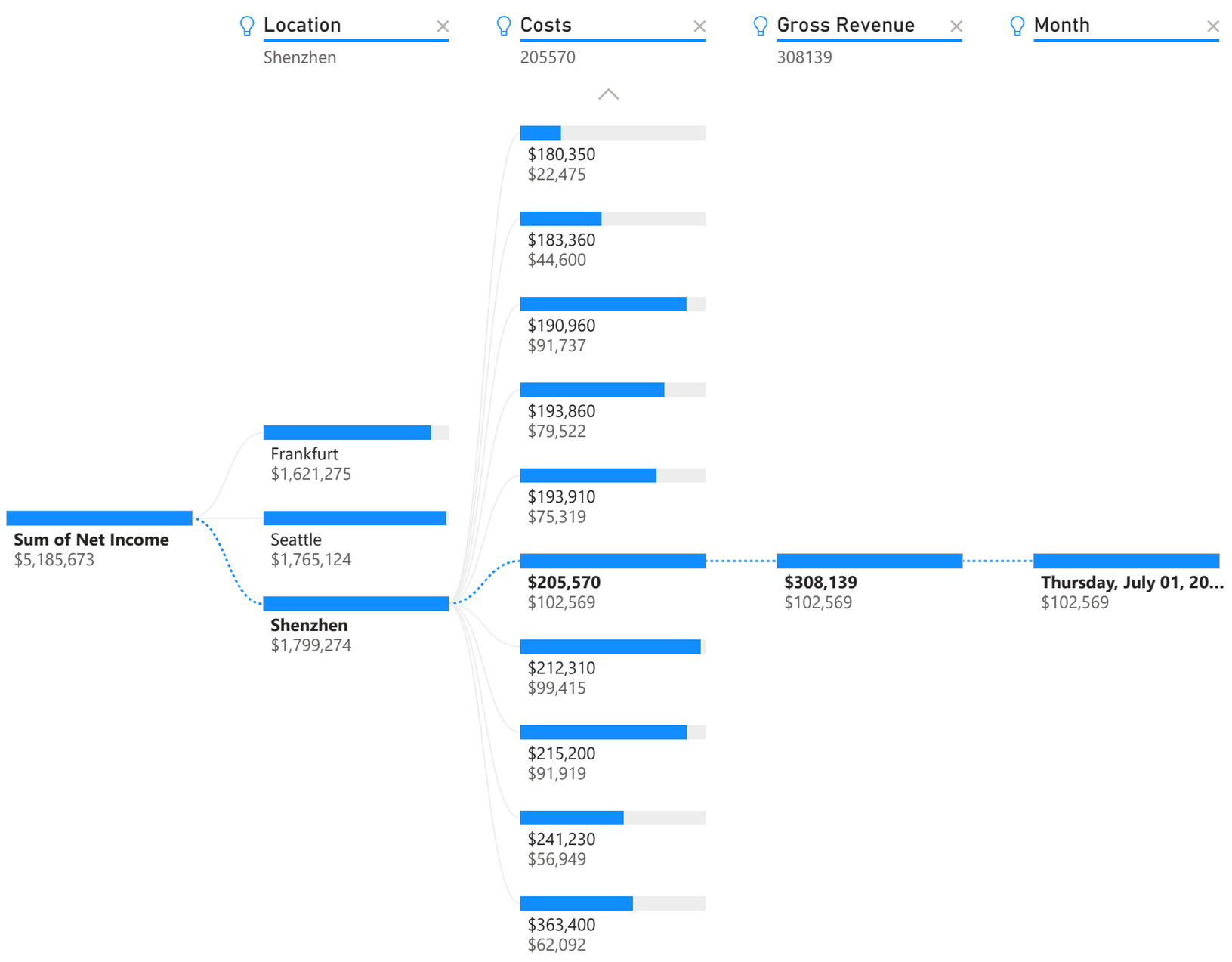


Estimated Factory Output by Factory Location



Exercise 1:

- Scatterplot of [Periods of Operation] vs [Estimated Factory Output]: There appears to be a visual correlation between X and Y
- Scatterplot of [Total Hours of Operation] vs [Estimated Factory Output]: There doesn't appear to be any sort of visual correlation between increasing total hours of operation and estimated factory output. The output is progressively increasing over time, while the hours of operation remain flat (although with variance) causing there to be no correlation.
- Donut Chart filtered to the top 25 production periods by factory output

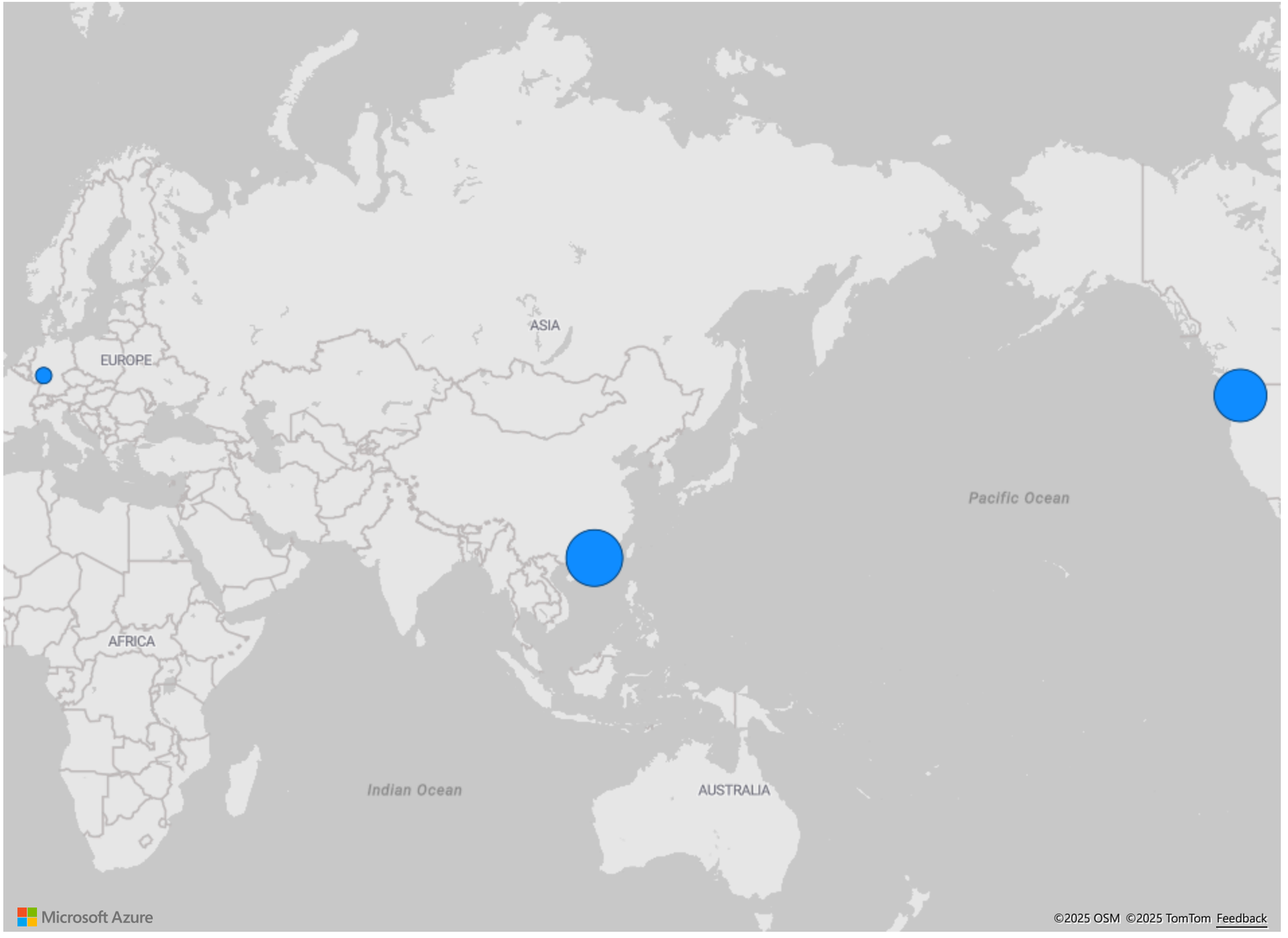


Exercise 2:

Decomposition Tree:

1. Insert Decomposition Tree:
2. Analyze = [Net Income]
3. Explain By = [Location]
4. Explain By = [Month]
5. Explain By = [Gross Revenue]
6. Explain By = [Costs]

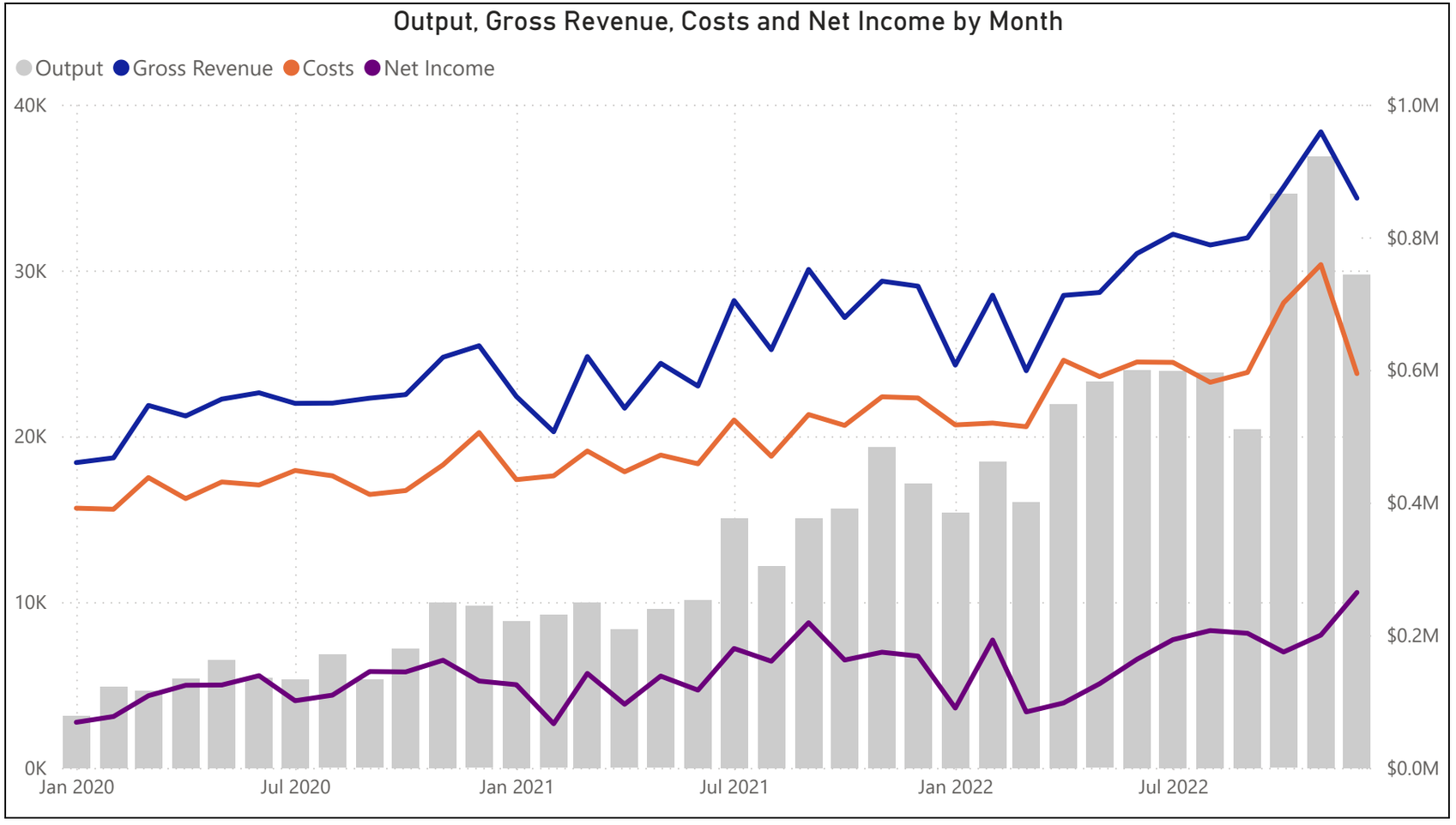
Net Income by Location



Exercise 2:

Map:

1. Insert Map
2. Location = [Location]
3. Size = [Net Income]
4. Adjust style to grayscale (paintbrush > map styles)



Exercise 2:

- Combination Chart:

1. Insert Combination Chart
2. Shared Axis = 'Profitability'[Month]
3. Column Values = 'Profitability'[Output]
4. Line Values = 'Profitability'[Gross Revenue]
5. Line Values = 'Profitability'[Costs]
6. Line Values = 'Profitability'[Net Income]
7. Adjust columns to light gray so that the lines are more visible

- KPI:

1. Insert KPI
2. Indicator = 'Profitability'[Net Income]
3. Trend Axis = 'Profitability'[Month]
4. Target Goal = (calculated measure): Target = 225000

- Funnel Chart:

1. Group = 'Profitability'[Location]
2. Values = 'Profitability'[Net Income]