

## Iterating Functions Lab

Resources: <https://github.com/fenago/cts245X/tree/main/dax>

### Part 1: Practice with iterating functions

Create a new page called `Employee Analysis` .

Create a measure, called `Profit Ratio` , that uses `AVERAGEX()` function to provide an average over the `Fact_Sales` table while dividing `Profit` by `Total Sales` . This measure represents the average profit ratio per sale.

For more information on this function, visit this link:  
<https://learn.microsoft.com/en-us/dax/averagex-function-dax>

Format this measure as a percentage.

Create a *Table* visual of `Profit Ratio` by `Dim_Employee[Employee]` to answer the question on the next step.

**Which employee had the lowest average Profit Ratio?**

- ☐ Hudson Hollinworth
- ☐ Archer Lamble
- ☐ Taj Shand

### Part 2: More iterating functions

Create a new measure, called `Average Discount Rate` .  
Use `AVERAGEX()` on the `Fact_Sales` table while subtracting the `Unit Price` from `Retail Price` , and dividing the difference by `Retail Price` .

Format this measure as a percentage.

Create a *Scatter chart* visual, with `Average Discount Rate` on the *X Axis*, and `Profit Ratio` on the *Y Axis*. Color by `Dim_Employee[Employee]` .

Hudson Hollinworth had the lowest Profit Ratio. How high was his Average Discount Rate?

### Part 3: Use of RANKX()

Create a measure, called `Discount Rate Ranking` , that uses `RANKX()` function to provide a ranking of all employees listed in `Dim_Employee[Employee]` , by their `Average Discount Rate` .

Don't forget to include `ALL()` within the to rank all employees of the `Dim_Employee` table.

- Add `Discount Rate Ranking` to the *Table* visual. It seems that there are non-salespersons among the employees as well, since these don't have a `Profit Ratio` .
- Go to the `Dim_Employee` table in the *Data* view and check which column specifies whether an employee is a salesperson or not.

Return to the *Report* view and use a classic dashboard filter on the *Table* visual to only include `Is Salesperson = 1` from the `Dim_Employee` table.

**Which employee is ranked 5th by Average Discount Rate?**

- ☐ Jack
- ☐ Taj
- ☐ Sophia
- ☐ Kayla