# Product Aggregation Tasks (Using MongoDB Accumulator Operators)

These tasks are designed to analyze data from a `products` collection, grouped by their `category`. Each task focuses on a specific accumulator operator in the MongoDB aggregation pipeline.

## Task 1 — Maximum Price per Category ($max)

Objective: Identify the highest product price in each category.

## Task 2 — Minimum Price per Category ($min)

Objective: Identify the lowest product price in each category.

## Task 3 — Average Price per Category ($avg)

Objective: Calculate the average product price within each category.

## Task 4 — Total Quantity per Category ($sum)

Objective: Calculate the total quantity of products available in each category.

## Task 5 — All Products per Category ($push)

Objective: Collect the names of all products belonging to each category into an array.

## Task 6 — First Product per Category ($first)

Objective: Retrieve the first inserted product name from each category.

## Task 7 — Top-Priced Product per Category ($top)

Objective: Identify the product with the highest price (top) in each category along with its price.

## Task 8 — Lowest-Priced Product per Category ($bottom)

Objective: Identify the product with the lowest price (bottom) in each category along with its price.