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**CS-340**

**October 17, 2022**

**Module 8: Aggregation Pipeline**

**Load Data:**

Text

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**Prompt 1:**

1. **db.research.find({"name" : "AdventNet"})**  
   A picture containing background pattern

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2. **db.research.find({"founded\_year" : 1996},{"name" : 1}).limit(10)**

Text

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**Prompt 2: Perform the following tasks using MongoDB queries:**

1. **List only the first 20 names of companies founded after the year 2010, ordered alphabetically.**  
     
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2. **List only the first 20 names of companies with offices in either California or Texas, ordered by the number of employees and sorted largest to smallest**

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**Prompt 3: Design and implement a MongoDB aggregation pipeline to show the total number of employees by state for all companies that have offices in the United States.**

First Stage: Unwinds the offices array to create a document per element

Second Stage: Match country\_code, Group by state\_code, and Sum number\_of\_employees

Third Stage: Sort the documents by \_id, i.e., state\_code  
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