**AGGREGATION QUERIES FOR PERSONAL PORTFOLIO PROJECT**

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### 1. skills Collection

**View: skills\_by\_experience**

[{  
 $sort: { yearsOfExperience: -1 }  
}]

**Purpose:** Sorts skills by descending order of experience to highlight most proficient skills at the top.

**View: skill\_levels\_distribution**

[{  
 $group: {  
 \_id: "$level",  
 count: { $sum: 1 }  
 }  
}]

**Purpose:** Shows how many skills fall into each proficiency level.

### 2. education Collection

**View: education\_duration**

[{  
 $project: {  
 institution: 1,  
 duration: { $subtract: ["$endYear", "$startYear"] }  
 }  
}]

**Purpose:** Displays duration (in years) of each education entry.

**View: average\_gpa**

[{  
 $group: {  
 \_id: null,  
 avgGPA: { $avg: "$gpa" }  
 }  
}]

**Purpose:** Calculates the average GPA across all educational entries.

### 3. projects Collection

**View: projects\_by\_tech\_count**

[{  
 $unwind: "$technologies"  
}, {  
 $group: {  
 \_id: "$technologies",  
 count: { $sum: 1 }  
 }  
}]

**Purpose:** Counts how many times each technology is used across all projects.

**View: github\_projects\_only**

[{  
 $match: {  
 githubUrl: { $exists: true, $ne: "" }  
 }  
}]

**Purpose:** Filters projects that have a GitHub link.

### 4. contacts Collection

**View: contacts\_by\_domain**

[{  
 $project: {  
 domain: { $arrayElemAt: [{ $split: ["$email", "@"] }, 1] }  
 }  
}, {  
 $group: {  
 \_id: "$domain",  
 total: { $sum: 1 }  
 }  
}]

**Purpose:** Groups contact submissions based on email domains to identify dominant sources.

**View: recent\_contacts**

[{  
 $sort: { submittedAt: -1 }  
}, {  
 $limit: 5 }

**Purpose:** Lists the five most recent contact messages.

**Note:** All views should be saved via MongoDB Atlas using the “Create View” option in each collection’s aggregation tab.