

## NODEJS, MONGODB & Express Assignment (Duration 1Hour)

- You have to use nodejs **native mongodb driver and not mongoose**. `npm mongodb`
- You have to submit apis as well as raw mongodb queries for below tasks.
- All tasks have to be achieved through queries and not by processing them in nodejs. ie. api has to just query mongodb and return response without any computation using nodejs.

**TASK1:** Create GET api to fetch authors who have greater than or equal to  $n$  awards

**Input:** Create GET api which accepts  $n$ , where  $n$  is number of awards.

**Output:** Return authors who has got total number of awards  $\geq n$

**TASK2:** Create GET api to fetch authors who have won award where  $\text{year} \geq y$

**Input:** create GET api which accepts  $y$ , where  $y$  is number

**Output:** return authors who has won awards  $\text{year} \geq y$

**TASK3:** Create GET api to fetch total number of books sold and total profit by each author.

**Use Aggregate pipeline**

**Output:**  $\text{totalBooksSold} = (\text{sum of all books sold})$ ,  $\text{totalProfit} = (\text{sum}(\text{sold} * \text{price}))$

**Example:** James Gosling  $\Rightarrow \text{totalBooksSold}(150 + 200)$ ,  $\text{totalProfit} = ((3000 * 150) + (5000 * 200))$

```
[
  {
    "_id": ObjectId("5ee24e55c444cc62db562634"),
    "totalBooksSold": 350,
    "totalProfit": 1450000
  },
  .....,
  .....
]
```

**TASK4:** Create GET api which accepts parameter birthDate and totalPrice, where birthDate is date string and totalPrice is number. **Use Aggregate pipeline**

**Output:** authors whose birth date  $\geq$  birthDate and sum of all his books price  $\geq$  totalPrice

Example1:

**Input:** if input birthDate = "1906-12-09T05:00:00.000Z" and totalPrice = 7000

**Output:**

```
[{
  "_id" : ObjectId("5ee24e55c444cc62db562634"),
  "totalPrice" : 8000.0
}]
```

Example2:

**Input:** if input birthDate = "1906-12-09T05:00:00.000Z" and totalPrice = 2000

**Output:**

```
[
  {
    "_id" : ObjectId("5ee24e55c444cc62db56262f"),
    "totalPrice" : 2500.0
  },
  {
    "_id" : ObjectId("5ee24e55c444cc62db562631"),
    "totalPrice" : 2500.0
  },
  {
    "_id" : ObjectId("5ee24e55c444cc62db562634"),
    "totalPrice" : 8000.0
  }
]
```