LAB ASSIGNMENT – 3

DATE: 05/02/2024

**Q1: Write a query to add additional attributes Marks and Salary with their respective value.**

**Ans:**

db.employees.update**({**"Name"**:**"Ram"**},{**

$set**:** **{**

"Marks"**:**70**,**

"Salary"**:**15000**,**

**}**

**})**

db.employees.update**({**"Name"**:**"Yukta"**},{**

$set**:** **{**

"Marks"**:**50**,**

"Salary"**:**25000**,**

**}**

**})**

db.employees.update**({**"Name"**:**"John"**},{**

$set**:** **{**

"Marks"**:**60**,**

"Salary"**:**20000**,**

**}**

**})**

db.employees.update**({**"Name"**:**"Trisha"**},{**

$set**:** **{**

"Marks"**:**65**,**

"Salary"**:**35000**,**

**}**

**})**

db.employees.update**({**"Name"**:**"Manav"**},{**

$set**:** **{**

"Marks"**:**85**,**

"Salary"**:**42000**,**

**}**

**})**

db.employees.update**({**"Name"**:**"Rohini"**},{**

$set**:** **{**

"Marks"**:**75**,**

"Salary"**:**51000**,**

**}**

**})**

db.employees.update**({**"Name"**:**"Karan"**},{**

$set**:** **{**

"Marks"**:**55**,**

"Salary"**:**45000**,**

**}**

**})**

db.employees.update**({**"Name"**:**"Isha"**},{**

$set**:** **{**

"Marks"**:**87**,**

"Salary"**:**55000**,**

**}**

**})**

db.employees.update**({**"Name"**:**"Mohan"**},{**

$set**:** **{**

"Marks"**:**98**,**

"Salary"**:**65000**,**

**}**

**})**

db.employees.update**({**"Name"**:**"Siya"**},{**

$set**:** **{**

"Marks"**:**80**,**

"Salary"**:**85000**,**

**}**

**})**

db.employees.find**()**

**Output:**

**{**

"\_id" **:** ObjectId**(**"65be183234197f3496557156"**),**

"Emp\_id" **:** "E001"**,**

"Name" **:** "Ram"**,**

"Age" **:** NumberInt**(**20**),**

"Department" **:** "IT"**,**

"Salary" **:** NumberInt**(**15000**),**

"Gender" **:** "Male"**,**

"Phone\_no" **:** NumberInt**(**123**),**

"Fav\_Colour" **:** "Black"**,**

"Marks" **:** NumberInt**(**70**)**

**}**

**{**

"\_id" **:** ObjectId**(**"65be183234197f3496557157"**),**

"Emp\_id" **:** "E002"**,**

"Name" **:** "Yukta"**,**

"Age" **:** NumberInt**(**29**),**

"Department" **:** "FINANCE"**,**

"Salary" **:** NumberInt**(**25000**),**

"Gender" **:** "Female"**,**

"Phone\_no" **:** NumberInt**(**456**),**

"Fav\_Colour" **:** "Pink"**,**

"Marks" **:** NumberInt**(**50**)**

**}**

**{**

"\_id" **:** ObjectId**(**"65be183234197f3496557158"**),**

"Emp\_id" **:** "E003"**,**

"Name" **:** "John"**,**

"Age" **:** NumberInt**(**40**),**

"Department" **:** "HR"**,**

"Salary" **:** NumberInt**(**20000**),**

"Gender" **:** "Male"**,**

"Phone\_no" **:** NumberInt**(**122**),**

"Fav\_Colour" **:** "Yellow"**,**

"Marks" **:** NumberInt**(**60**)**

**}**

**{**

"\_id" **:** ObjectId**(**"65be183234197f3496557159"**),**

"Emp\_id" **:** "E004"**,**

"Name" **:** "Trisha"**,**

"Age" **:** NumberInt**(**55**),**

"Department" **:** "IT"**,**

"Salary" **:** NumberInt**(**35000**),**

"Gender" **:** "Female"**,**

"Phone\_no" **:** NumberInt**(**444**),**

"Fav\_Colour" **:** "Pink"**,**

"Marks" **:** NumberInt**(**65**)**

**}**

**{**

"\_id" **:** ObjectId**(**"65be183234197f349655715a"**),**

"Emp\_id" **:** "E005"**,**

"Name" **:** "Manav"**,**

"Age" **:** NumberInt**(**30**),**

"Department" **:** "FINANCE"**,**

"Salary" **:** NumberInt**(**42000**),**

"Gender" **:** "Male"**,**

"Phone\_no" **:** NumberInt**(**567**),**

"Fav\_Colour" **:** "Blue"**,**

"Marks" **:** NumberInt**(**85**)**

**}**

**{**

"\_id" **:** ObjectId**(**"65be183234197f349655715b"**),**

"Emp\_id" **:** "E006"**,**

"Name" **:** "Rohini"**,**

"Age" **:** NumberInt**(**25**),**

"Department" **:** "HR"**,**

"Salary" **:** NumberInt**(**51000**),**

"Gender" **:** "Female"**,**

"Phone\_no" **:** NumberInt**(**121**),**

"Fav\_Colour" **:** "Pink"**,**

"Marks" **:** NumberInt**(**75**)**

**}**

**{**

"\_id" **:** ObjectId**(**"65be183234197f349655715c"**),**

"Emp\_id" **:** "E007"**,**

"Name" **:** "Karan"**,**

"Age" **:** NumberInt**(**38**),**

"Department" **:** "IT"**,**

"Salary" **:** NumberInt**(**45000**),**

"Gender" **:** "Male"**,**

"Phone\_no" **:** NumberInt**(**256**),**

"Fav\_Colour" **:** "Black"**,**

"Marks" **:** NumberInt**(**55**)**

**}**

**{**

"\_id" **:** ObjectId**(**"65be183234197f349655715d"**),**

"Emp\_id" **:** "E008"**,**

"Name" **:** "Isha"**,**

"Age" **:** NumberInt**(**45**),**

"Department" **:** "FINANCE"**,**

"Salary" **:** NumberInt**(**55000**),**

"Gender" **:** "Female"**,**

"Phone\_no" **:** NumberInt**(**928**),**

"Fav\_Colour" **:** "Pink"**,**

"Marks" **:** NumberInt**(**87**)**

**}**

**{**

"\_id" **:** ObjectId**(**"65be183234197f349655715e"**),**

"Emp\_id" **:** "E009"**,**

"Name" **:** "Mohan"**,**

"Age" **:** NumberInt**(**48**),**

"Department" **:** "HR"**,**

"Salary" **:** NumberInt**(**65000**),**

"Gender" **:** "Male"**,**

"Phone\_no" **:** NumberInt**(**464**),**

"Fav\_Colour" **:** "Yellow"**,**

"Marks" **:** NumberInt**(**98**)**

**}**

**{**

"\_id" **:** ObjectId**(**"65be183234197f349655715f"**),**

"Emp\_id" **:** "E010"**,**

"Name" **:** "Siya"**,**

"Age" **:** NumberInt**(**37**),**

"Department" **:** "IT"**,**

"Salary" **:** NumberInt**(**85000**),**

"Gender" **:** "Female"**,**

"Phone\_no" **:** NumberInt**(**665**),**

"Fav\_Colour" **:** "Pink"**,**

"Marks" **:** NumberInt**(**80**)**

**}**

**Q2: Write a query to find the total sum of Marks and Salary.**

**Ans:**

db.employees.aggregate**([**

**{**

$group**:** **{**

\_id**:** null**,**

Total\_Marks**:** **{** $sum**:** "$Marks" **},**

Total\_Salary**:** **{** $sum**:** "$Salary" **}**

**}**

**}**

**])**

**Output:**

**{**

"\_id" **:** null**,**

"Total\_Marks" **:** NumberInt**(**725**),**

"Total\_Salary" **:** NumberInt**(**438000**)**

**}**

**Q3: Write a query to find the average Marks and Salary.**

**Ans:**

db.employees.aggregate**([**

**{**

$group**:** **{**

\_id**:** null**,**

Average\_Marks**:** **{** $avg**:** "$Marks" **},**

Average\_Salary**:** **{** $avg**:** "$Salary" **}**

**}**

**}**

**])**

**Output:**

**{**

"\_id" **:** null**,**

"Average\_Marks" **:** 72.5**,**

"Average\_Salary" **:** 43800.0

**}**

**Q4: Write a query to find the minimum Marks and Salary.**

**Ans:**

db.employees.aggregate**([**

**{**

$group**:** **{**

\_id**:** null**,**

Minimum\_Marks**:** **{** $min**:** "$Marks" **},**

Minimum\_Salary**:** **{** $min**:** "$Salary" **}**

**}**

**}**

**])**

**Output:**

**{**

"\_id" **:** null**,**

"Minimum\_Marks" **:** NumberInt**(**50**),**

"Minimum\_Salary" **:** NumberInt**(**15000**)**

**}**

**Q5: Write a query to find the maximum Marks and Salary.**

**Ans:**

db.employees.aggregate**([**

**{**

$group**:** **{**

\_id**:** null**,**

Maximum\_Marks**:** **{** $max**:** "$Marks" **},**

Maximum\_Salary**:** **{** $max**:** "$Salary" **}**

**}**

**}**

**])**

**Output:**

**{**

"\_id" **:** null**,**

"Maximum\_Marks" **:** NumberInt**(**98**),**

"Maximum\_Salary" **:** NumberInt**(**85000**)**

**}**

**Q6: Write a query to find only the total number of documents with female gender.**

**Ans:**

db.employees.aggregate**([**

**{**

$match**:** **{**

"Gender"**:**"Female"

**}**

**},{**

$group**:** **{**

\_id**:** "$Gender"**,**

count**:** **{**

$sum**:** 1

**}**

**}**

**}**

**])**

**Output:**

**{**

"\_id" **:** "Female"**,**

"count" **:** 5.0

**}**