

NAME: NIDHI SHETTY

ROLL NO.: 01

## PRACTICAL NO.: 4

### Comparison Operators

```
> db.prac4_aggregation.find({"fare": {"$eq": 8.05}}, {sex: 5})

< {
  _id: ObjectId('65d9c2b8db7080115321a0c3'),
  sex: 'male'
}
{
  _id: ObjectId('65d9c2b8db7080115321a0cc'),
  sex: 'male'
}
{
  _id: ObjectId('65d9c2b8db7080115321a0f7'),
  sex: 'female'
}
{
  _id: ObjectId('65d9c2b8db7080115321a0fe'),
  sex: 'male'
}
{
  _id: ObjectId('65d9c2b8db7080115321a0ff'),
  sex: 'male'
}
{
  _id: ObjectId('65d9c2b8db7080115321a115'),
  sex: 'male'
}
```

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```
{
  _id: ObjectId('65d9c2b8db7080115321a115'),
  sex: 'male'
}
{
  _id: ObjectId('65d9c2b8db7080115321a122'),
  sex: 'male'
}
{
  _id: ObjectId('65d9c2b8db7080115321a12a'),
  sex: 'male'
}
{
  _id: ObjectId('65d9c2b8db7080115321a12d'),
  sex: 'male'
}
{
  _id: ObjectId('65d9c2b8db7080115321a131'),
  sex: 'male'
}
{
  _id: ObjectId('65d9c2b8db7080115321a13a'),
  sex: 'male'
}
```

```
{
  _id: ObjectId('65d9c2b8db7080115321a155'),
  sex: 'male'
}
{
  _id: ObjectId('65d9c2b8db7080115321a16b'),
  sex: 'male'
}
{
  _id: ObjectId('65d9c2b8db7080115321a16e'),
  sex: 'female'
}
{
  _id: ObjectId('65d9c2b8db7080115321a18a'),
  sex: 'male'
}
{
  _id: ObjectId('65d9c2b8db7080115321a193'),
  sex: 'male'
}
{
  _id: ObjectId('65d9c2b8db7080115321a1a3'),
  sex: 'male'
}
```

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```
> db.prac4_aggregation.find({"age": {"$lte": 5}},
  {age: 6})
< {
  _id: ObjectId('65d9c2b8db70801153219e63'),
  age: 0.92
}
{
  _id: ObjectId('65d9c2b8db70801153219e64'),
  age: 2
}
{
  _id: ObjectId('65d9c2b8db70801153219ec0'),
  age: 4
}
{
  _id: ObjectId('65d9c2b8db70801153219fb5'),
  age: 1
}
{
  _id: ObjectId('65d9c2b8db70801153219fb6'),
  age: 4
}
{
  _id: ObjectId('65d9c2b8db70801153219fc9'),
  age: 0.83
}
```

```
{
  _id: ObjectId('65d9c2b8db7080115321a087'),
  age: 3
}
{
  _id: ObjectId('65d9c2b8db7080115321a0ad'),
  age: 2
}
{
  _id: ObjectId('65d9c2b8db7080115321a0ae'),
  age: 4
}
{
  _id: ObjectId('65d9c2b8db7080115321a0b0'),
  age: 0.92
}
{
  _id: ObjectId('65d9c2b8db7080115321a0b1'),
  age: 5
}
{
  _id: ObjectId('65d9c2b8db7080115321a0c5'),
  age: 0.83
}
```

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```
> db.prac4_aggregation.find({"fare": {"$lte": 200, "$gt": 100}},
  {fare: 10, _id: 0})
< {
  fare: 151.55
}
{
  fare: 151.55
}
{
  fare: 151.55
}
{
  fare: 151.55
}
{
  fare: 135.6333
}
{
  fare: 164.8667
}
```

```
}
{
  fare: 120
}
{
  fare: 120
}
{
  fare: 120
}
{
  fare: 136.7792
}
{
  fare: 136.7792
}
{
  fare: 151.55
}
{
  fare: 151.55
}
```

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## Logical Operators

```
> db.prac4_aggregation.find({"$or": [
  {"fare": {"$lte": 50}},
  {"age": {"$gt": 40}}]),
  {"_id": 0, "fare": 10, "age": 6})
< {
  age: 48,
  fare: 26.55
}
{
  age: 63,
  fare: 77.9583
}
{
  age: 39,
  fare: 0
}
{
  age: 53,
  fare: 51.4792
}
```

```
{
  age: 71,
  fare: 49.5042
}
{
  age: 47,
  fare: 227.525
}
{
  age: 80,
  fare: 30
}
{
  age: '',
  fare: 25.925
}
{
  age: 50,
  fare: 247.5208
}
```

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```
> db.prac4_aggregation.find({
  "fare": {"$lt": 50},
  "boat": {"$ne": null}},
  {"_id": 0, "fare": 10, "boat": 13})
< {
  fare: 26.55,
  boat: 3
}
{
  fare: 0,
  boat: ''
}
{
  fare: 49.5042,
  boat: ''
}
{
  fare: 30,
  boat: 'B'
}
{
  fare: 25.925,
  boat: ''
}
```

```

}
{
  fare: 30,
  boat: 5
}
{
  fare: 26,
  boat: ''
}
{
  fare: 26.55,
  boat: 'D'
}
{
  fare: 35.5,
  boat: ''
}
{
  fare: 31,
  boat: 7
}
{
  fare: 26.55,
  boat: 8
}
```

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## Element Operator

```
> db.prac4_aggregation.find({"sex": {"$type": "string"}}).pretty()
```

```
< {
  _id: ObjectId('65d9c2b8db70801153219e62'),
  pclass: 1,
  survived: 1,
  name: 'Allen, Miss. Elisabeth Walton',
  sex: 'female',
  age: 29,
  sibsp: 0,
  parch: 0,
  ticket: 24160,
  fare: 211.3375,
  cabin: 'B5',
  embarked: 'S',
  boat: 2,
  body: '',
  'home.dest': 'St Louis, MO'
}
{
  _id: ObjectId('65d9c2b8db70801153219e63'),
  pclass: 1,
```

```
  _id: ObjectId('65d9c2b8db70801153219e63'),
  pclass: 1,
  survived: 1,
  name: 'Allison, Master. Hudson Trevor',
  sex: 'male',
  age: 0.92,
  sibsp: 1,
  parch: 2,
  ticket: 113781,
  fare: 151.55,
  cabin: 'C22 C26',
  embarked: 'S',
  boat: 11,
  body: '',
  'home.dest': 'Montreal, PQ / Chesterville, ON'
}
{
  _id: ObjectId('65d9c2b8db70801153219e64'),
  pclass: 1,
  survived: 0,
  name: 'Allison, Miss. Helen Lorraine',
  sex: 'female',
  age: 2,
  sibsp: 1,
  parch: 2,
  ticket: 113781,
```

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```
> db.prac4_aggregation.count({"body": null}, {body:14})  
< 0
```

## Array Operators