

## TUESDAY TASK ASSIGNMENT

KAUSHIK K

21MIS0332

1. Find products that have either "white" or "black" as a color option and are priced below 800.

```
>_MONGOSH
> db.products.find({
  $and:[{price:{$lt : 800}},{
    $or :[
      { color: "white"},
      { color: "black"}
    ]}]
}, {
  name: 1,
  price: 1,
  color: 1
})
```

```
>_MONGOSH
{
  _id: 1,
  name: 'xPhone',
  price: 799,
  color: [
    'white',
    'black'
  ]
}
{
  _id: 4,
  name: 'SmartPad',
  price: 699,
  color: [
    'white',
    'orange',
    'gold',
    'gray'
  ]
}
{
  _id: 5,
  name: 'SmartPhone',
  price: 599,
  color: [
    'white',
    'orange',
    'gold',
    'gray'
  ]
}
```

2 . select phone with screen size not greater than 9.5 and ram not in 4,8

```
> db.products.find({$and:[
  {"spec.screen":{
    $lte:9.5}},
  {"spec.ram":{
    $nin:[4,8]}}
  ]})
< {
  _id: 2,
  name: 'xTablet',
  price: 899,
  releaseDate: 2011-09-01T00:00:00.000Z,
  spec: {
    ram: 16,
    screen: 9.5,
    cpu: 3.66
  },
  color: [
    'white',
    'black',
    'purple'
  ],
  storage: [
    128,
    256,
    512
  ]
}
```

3 . select products with cpu power not less than 2.66 nor more than 3.66

```
> db.products.find({$nor:[
  {"spec.cpu":
    {$lt:2.66}},
  {"spec.cpu":
    {$gt:3.66}}]},
  {
    name:1,
    price:1}
  )
< {
  _id: 1,
  name: 'xPhone',
  price: 799
}
{
  _id: 2,
  name: 'xTablet',
  price: 899
}
{
  _id: 3,
  name: 'SmartTablet',
  price: 899
}
```

4. select products with either white colour and storage not less than 128

```
>_MONGOSH
```

```
> db.products.find({$or:
  [
    {color:"white"},
    {storage:
      {$not:{
        $lt:128}}}
  ]},
  {
    name:1,
    price:1,
    color:1,
    storage:1})
```

```
< {
  _id: 1,
  name: 'xPhone',
  price: 799,
  color: [
    'white',
    'black'
  ],
  storage: [
    64,
    128,
    256
  ]
}
```

```
>_MONGOSH
```

```
  _id: 2,
  name: 'xTablet',
  price: 899,
  color: [
    'white',
    'black',
    'purple'
  ],
  storage: [
    128,
    256,
    512
  ]
}
{
  _id: 4,
  name: 'SmartPad',
  price: 699,
  color: [
    'white',
    'orange',
    'gold',
    'gray'
  ],
  storage: [
    128,
    256,
    1024
  ]
}
```

```
    color: [
      'white',
      'orange',
      'gold',
      'gray'
    ],
    storage: [
      128,
      256,
      1024
    ]
  }
{
  _id: 5,
  name: 'SmartPhone',
  price: 599,
  color: [
    'white',
    'orange',
    'gold',
    'gray'
  ],
  storage: [
    128,
    256
  ]
}
products> |
```

5. Price should be greater than either 799 or ram is greater than 12

```
> db.products.find({$or:
  [
    {price:
      {$gt:799}},
    {"spec.ram":
      {$gt:12}}
  ]
})
< {
  _id: 2,
  name: 'xTablet',
  price: 899,
  releaseDate: 2011-09-01T00:00:00.000Z,
  spec: {
    ram: 16,
    screen: 9.5,
    cpu: 3.66
  },
  color: [
    'white',
    'black',
    'purple'
  ],
  storage: [
    128,
    256,
    512
  ]
}
```

```
{
  _id: 3,
  name: 'SmartTablet',
  price: 899,
  releaseDate: 2015-01-14T00:00:00.000Z,
  spec: {
    ram: 12,
    screen: 9.7,
    cpu: 3.66
  },
  color: [
    'blue'
  ],
  storage: [
    16,
    64,
    128
  ]
}
```

6. Find products that do not have "white" as a color and are priced below 900.

```
> _MONGOSH
> db.products.find({$and:
  [
    {color:
      {$nin:["white"]}},
    {price:
      {$lt:900}}
  ]
})
< {
  _id: 3,
  name: 'SmartTablet',
  price: 899,
  releaseDate: 2015-01-14T00:00:00.000Z,
  spec: {
    ram: 12,
    screen: 9.7,
    cpu: 3.66
  },
  color: [
    'blue'
  ],
  storage: [
    16,
    64,
    128
  ]
}
products> |
```

7. select products with either blue colour and storage not less than 128.

```
>_MONGOSH
```

```
> db.products.find({$or:
```

```
  [
    {color:"blue"},
    {storage:
      {$not:{$lt:128}}}
  ]},
```

```
  {
    name:1,
    price:1,
    color:1
  })
```

```
< {
```

```
  _id: 2,
  name: 'xTablet',
  price: 899,
  color: [
    'white',
    'black',
    'purple'
  ]
}
```

```
}
```

```
{
```

```
  _id: 3,
  name: 'SmartTablet',
  price: 899,
  color: [
    'blue'
  ]
}
```

```
>_MONGOSH
```

```
  price: 899,
  color: [
    'blue'
  ]
}
```

```
}
```

```
{
```

```
  _id: 4,
  name: 'SmartPad',
  price: 699,
  color: [
    'white',
    'orange',
    'gold',
    'gray'
  ]
}
```

```
}
```

```
{
```

```
  _id: 5,
  name: 'SmartPhone',
  price: 599,
  color: [
    'white',
    'orange',
    'gold',
    'gray'
  ]
}
```

```
products>
```

8. Write a query to find a product whose cpu is greater than or equal to 2 without using "\$gte" .

```
>_MONGOSH
> db.products.find({$or:
  [
    {"spec.cpu":
      {$gt:2}},
    {"spec.cpu":2}
  ]},
  {
    name:1,
    "spec.cpu":1
  }
})
```

```
< {
  _id: 1,
  name: 'xPhone',
  spec: {
    cpu: 2.66
  }
}
{
  _id: 2,
  name: 'xTablet',
  spec: {
    cpu: 3.66
  }
}
{
  _id: 3,
  name: 'SmartTablet',
  spec: {
    cpu: 3.66
  }
}
products> |
```



9. Write a query to find a product whose colour is not black or white without using "\$nin" .

```
> db.products.find({$nor:
  [
    {color:"black"},
    {color:"white"}
  ]
},
{
  name:1,
  price:1,
  color:1
})
< {
  _id: 3,
  name: 'SmartTablet',
  price: 899,
  color: [
    'blue'
  ]
}
products> |
```

10. print the name and date of product whose ram is neither 4 nor the product price is less than 799

```
> db.products.find({$nor:
  [
    {"spec.ram":4},
    {price:
      {$lt:799}}
  ]},
{
  name:1,
  releaseDate:1
})
< {
  _id: 2,
  name: 'xTablet',
  releaseDate: 2011-09-01T00:00:00.000Z
}
{
  _id: 3,
  name: 'SmartTablet',
  releaseDate: 2015-01-14T00:00:00.000Z
}
products>
```

11. print the names of products whose screen is either greater than 7 or color is white.

```
>_MONGOSH
```

```
> db.products.find({$or:
```

```
  [
    {"spec.screen":
      {$gt:7}},
    {"color":"white"}
  ]},
  {
    name:1,
    price:1
  })
```

```
< {
  _id: 1,
  name: 'xPhone',
  price: 799
}
{
  _id: 2,
  name: 'xTablet',
  price: 899
}
{
  _id: 3,
  name: 'SmartTablet',
  price: 899
}
{
  _id: 4,
  name: 'SmartPad',
```

```
  _id: 3,
  name: 'SmartTablet',
  price: 899
}
{
  _id: 4,
  name: 'SmartPad',
  price: 699
}
{
  _id: 5,
  name: 'SmartPhone',
  price: 599
}
```

```
products>
```

12. print the name , screen size and color of products whose color has no gold in it.

```
> db.products.find(
  {color:
    {$not:
      {$eq:"gold"}}
  },
  {
    name:1,
    "spec.screen":1,
    color:1
  })
< {
  _id: 1,
  name: 'xPhone',
  spec: {
    screen: 6.5
  },
  color: [
    'white',
    'black'
  ]
}
{
  _id: 2,
  name: 'xTablet',
  spec: {
    screen: 9.5
  },
  color: [
```

```
    _id: 2,
    name: 'xTablet',
    spec: {
      screen: 9.5
    },
    color: [
      'white',
      'black',
      'purple'
    ]
  }
  {
    _id: 3,
    name: 'SmartTablet',
    spec: {
      screen: 9.7
    },
    color: [
      'blue'
    ]
  }
}
products>
```