Task

1. What is the difference between MongoDB and MYSQL ?

- **MONGODB**

  ➢ MongoDB is an open-source database developed by MongoDB, Inc.
  ➢ MongoDB stores data in JSON-like documents that can vary in structure. It is a popular NoSQL database.
  ➢ In MongoDB, each individual records are stored as 'documents'.
  ➢ Documents belonging to a particular class or group as stored in a 'collection'. Example: collection of users.
  ➢ MongoDB is what is called a NoSQL database. This means that pre-defined structure for the incoming data can be defined and adhered to but also, if required different documents in a collection can have different structures. It has a dynamic schema.
  ➢ MongoDB was designed with high availability and scalability in mind, and includes out-of-the-box replication and sharding.

- **MYSQL**
  ➢ MySQL is a popular open-source relational database management system (RDBMS) that is developed, distributed and supported by Oracle Corporation.
  ➢ In MySQL, each individual records are stored as 'rows' in a table.
  ➢ A 'table' is used to store rows (records) of similar type.
  ➢ MySQL as the name suggests uses Structured Query Language (SQL) for database access. The schema can not be changed. The inputs following the given schema are only entered.
  ➢ MySQL concept does not allow efficient replication and sharding but in MySQL one can access associated data using joins which minimizes duplication.

2. Create a db and collection of product data, perform the crud operation

insertOne()

```
>_MONGOSH

> use ProductsDetails
< switched to db ProductsDetails
> show collections
< products
> db.products.insertOne ({"id":31,"name":"PhotoFrame"})
< {
    acknowledged: true,
    insertedId: ObjectId('66f1a1ff61ea00036bb3c581')
  }
> db.products.insertOne ({ "id":32,"name":"Album"})
< {
    acknowledged: true,
    insertedId: ObjectId('66f1a24661ea00036bb3c582')
  }
```

insertMany()

```
  }
> db.products.insertMany([{"id":32,"title":"Bottle"},{"id":33,"title":"Table"}])
< {
    acknowledged: true,
    insertedIds: {
      '0': ObjectId('66f1a40d61ea00036bb3c583'),
      '1': ObjectId('66f1a40d61ea00036bb3c584')
    }
  }
```

Find()

```
>_MONGOSH                                                                                                              ⓘ
  }
> db.products.find()
< {
    _id: ObjectId('66f19f9dda7c173a36a71eae'),
    products: [
      {
        id: 1,
        title: 'Essence Mascara Lash Princess',
        description: 'The Essence Mascara Lash Princess is a popular mascara known for its volumizing and lengthening effects. Achi
        category: 'beauty',
        price: 9.99,
        discountPercentage: 7.17,
        rating: 4.94,
        stock: 5,
        tags: [
          'beauty',
          'mascara'
        ],
        brand: 'Essence',
        sku: 'RCH45Q1A',
        weight: 2,
        dimensions: {
          width: 23.17,
          height: 14.43,
```

updateOne()

```
< null
> db.products.updateOne({"id":32},{$set:{"title":"Steel Water Bottle"}})
< {
    acknowledged: true,
    insertedId: null,
    matchedCount: 1,
    modifiedCount: 1,
    upsertedCount: 0
  }
ProductsDetails>
```

updateMany()

```
  }
> db.products.updateMany({},{$set:{"Gift Options":"Available"}})
< {
    acknowledged: true,
    insertedId: null,
    matchedCount: 5,
    modifiedCount: 5,
    upsertedCount: 0
  }
```

deleteOne()

```
  }
> db.products.deleteOne({"id":7})
< {
    acknowledged: true,
    deletedCount: 0
  }
ProductsDetails>
```

deleteMany()

```
  }
> db.products.deleteMany({"Gift Options":"Available"})
< {
    acknowledged: true,
    deletedCount: 5
  }
ProductsDetails>
```