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USN:1NT18IS090

## SESSION-1

### 1. Installing Packages

gcc,g++,git,vim,terminator,openjdk-8-jdk,openjdk-8-jre

#### 1. Installing gcc

sudo apt install gcc

#### 2. Installing g++

sudo apt install g++

#### 3. Installing git

sudo apt install git

#### 4. Installing vim

sudo apt install vim

#### 5. Installing terminator

sudo apt install terminator

#### 6. Installing jdk

sudo apt install openjdk-8-jdk

#### 7. Installing OpenJdk-8-Jre:

sudo apt install openjdk-8-jre sudo  
apt install jre -version

### 2. Mongoddb

Installing mongoDB community edition

**Import the public key used by the package management system.**

wget -qO - https://www.mongodb.org/static/pgp/server-4.4.asc | sudo apt-key add -

### **Create a list file for MongoDB.**

```
echo "deb [ arch=amd64,arm64 ] https://repo.mongodb.org/apt/ubuntu  
focal/mongodb-org/4.4 multiverse" | sudo tee  
/etc/apt/sources.list.d/mongodb-org-4.4.list
```

### **Reload local package database.**

```
sudo apt-get update
```

### **Install the MongoDB packages.**

```
sudo apt-get install -y mongodb-org
```

### **To check mongo is properly installed and working**

Mongo

#### **JSON ARRAY**

```
{  
  "employees": [{  
    "firstName": "Mayank",  
    "lastname": "Kakani",  
    "age": 21  
  },  
  {  
    "firstName": "Alice",  
    "lastName": "Kakani",  
    "age": 22  
  },  
]  
}
```

#### **JSON OBJECT**

```
{  
  "employee1": {  
    "firstName": "Mayank",  
    "lastname": "Kakani",  
  },  
}
```

```
    "age": 21
  },
  "employee2": {
    "firstName": "Alice",
    "lastName": "Kakani",
    "age": 22
  },
}
```

## SESSION 2

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### **Create a database**

```
use st
```

### **Create collections**

#### **1.default approach**

```
db.st.insert({name:"Mayank Kakani",Usn:90,State:"UP"})
```

```
db.st.insert({name:"mongodb",tags:["database","nosql","distributed  
DB"],des:"mongodb"})
```

#### **2. Using a function call**

```
db.createCollection("employee",{size:300000,capped:true,max:1000});  
db.employee.insert({name:"emp1",tags:["mk","197","ds"],des:"student  
"})
```

### **Displaying the collection**

```
db.employee.find().pretty();
```

```
{
  "_id" : ObjectId("60645043f04d469600ccdd5e"),
  "name" : "emp1",
  "tags" : [
    "mk",
    "197",
    "ds"
  ],
}
```