COURSE OUTCOME 5

Explain the basic storage architecture of distributed file systems, and NoSQL databases with real time requirements.

PROGRAM 1

AIM: Create a collection in the MongoDB database. Perform shell commands to create an index on any field in the collection. Display the indexes on the collection using getIndexes() function.

1. Create a collection student_info

```
university> db.createCollection("student_info");
{ ok: 1 }
```

2. Display the collection after inserting

```
university> db.student_info.find()
[
  {
    _id: ObjectId('67f893ab7d6f0079d7b5f899'),
    srn: 4,
    sname: 'Jude',
    degree: 'MCA',
    semester: 1,
    CGPA: 5.5
  },
  {
    _id: ObjectId('67f893f47d6f0079d7b5f89a'),
    srn: 5,
    sname: 'Oliver Jirud',
    degree: 'BBA',
    semester: 3,
    CGPA: 6.7
  },
  {
    _id: ObjectId('67f894757d6f0079d7b5f89d'),
    srn: 8,
    sname: 'David beckham',
    degree: 'MSW',
    semester: 3,
    CGPA: 9.7
  },
```

3. Create an index on ‘srn’ field

```
university> db.student_info.createIndex({"srn":1})
srn_1
```

4. Display the index

```
university> db.student_info.getIndexes()
[
  { v: 2, key: { _id: 1 }, name: '_id_' },
  { v: 2, key: { srn: 1 }, name: 'srn_1' }
]
```

```
university> db.student_info.find({srn:5})
[
  {
    _id: ObjectId('67f893f47d6f0079d7b5f89a'),
    srn: 5,
    sname: 'Oliver Jirud',
    degree: 'BBA',
    semester: 3,
    CGPA: 6.7
  }
]
```