**Program 9:**

1. db.createCollection(‘catalog’)
2. db.catalog.insertMany([

{ \_id: 1, subject: ‘mongoDB’, author: ‘xyz’, views: 50 },

{ \_id: 2, subject: ‘mongoDB’, author: ‘efg’, views: 5 },

{ \_id: 3, subject: ‘dbms’, author: ‘abc’, views: 90 },

{ \_id: 4, subject: ‘dbms’, author: ‘xyz’, views: 100 },

{ \_id: 5, subject: ‘ai and dbms’, author: ‘abc’, views: 200 },

{ \_id: 6, subject: ‘machine learning’, author: ‘jkl’, views: 80 },

{ \_id: 7, subject: ‘machine learning’, author: ‘efg’, views: 10 },

{ \_id: 8, subject: ‘operating system’, author: ‘xyz’, views: 10 }] )

1. creating Index(text)
2. db.student.createIndex({subject:’text’})
3. db.catalog.find({$text:{$search:' dbms '}})
4. db.catalog.find({$text:{$search:'dbms -ai'}})
5. db.catalog.find({$text:{$search:'mongodb',$caseSensitive:true}})

**Program 10:**

**Aggregate Pipelines($match,$projection,$sort,$skip)**

1. db.catalog.aggregate({$match:{$text:{$search:'machine'}}})
2. db.catalog.aggregate({$match:{$text:{$search:'machine'}}},{$project:{subject:1,views:1,\_id:0}})
3. db.catalog.aggregate({$match:{$text:{$search:'machine'}}},{$project:{subject:1,views:1,\_id:0}},{$sort:{views:-1}})
4. db.catalog.aggregate({$match:{$text:{$search:'machine'}}},{$project:{subject:1,views:1,\_id:0}},{$sort:{views:-1}},{$skip:1})