> db.createCollection("students")

{ "ok" : 1 }

> db.createCollection("faculty")

{ "ok" : 1 }

> db.createCollection("courses")

{ "ok" : 1 }

> db.createCollection("departments")

{ "ok" : 1 }

> db.createCollection("grades")

{ "ok" : 1 }

> db.students.insertOne({

... name: "Sheeru bansal",

... student\_id: "01",

... department: "Civil engineering",

... semester: 3,

... age: 20})

> db.students.insertMany([

... {

... name: "Shruti Sharma",

... student\_id: "02",

... department: "Civil Engineering",

... semester: 2,

... age: 19,

... courses: [

... { course\_id: "CSCI101"},

... { course\_id: "MATH201"},

... { course\_id: "PHYS202"}

... ]

... },

...

... {

... student\_id: "04",

... name: "Reeti Rana",

... department: "Civil engineering",

... semester: 1,

... age: 22,

... courses: [

... { course\_id: "CSCI101"},

... { course\_id: "MATH201"},

... { course\_id: "PHYS202"}

... ]

... },

...

... {

... student\_id: "05",

... name: "Prashant Sharma",

... department: "Electrical Engineering",

... semester: 2,

... age: 18,

... courses: [

... { course\_id: "EE101"},

... { course\_id: "MATH201"},

... { course\_id: "PHYS202"}

... ]

... },

...

... {

... student\_id: "06",

... name: "Varun Singh",

... department: "Mechanical Engineering",

... semester: 1,

... age: 20,

... courses: [

... { course\_id: "MECH101"},

... { course\_id: "MATH201"},

... { course\_id: "PHYS202"}

... ]

... },

...

... {

... student\_id: "07",

... name: "Aaman Sidhu",

... department: "Computer Science",

... semester: 2,

... age: 20,

... courses: [

... { course\_id: "CSCI101"},

... { course\_id: "MATH201"},

... { course\_id: "PHYS202"}

... ]

... },

...

... {

... student\_id: "08",

... name: "Arushi Verma",

... department: "Computer Science",

... semester: 1,

... age: 19,

... courses: [

... { course\_id: "CSCI101"},

... { course\_id: "MATH201"},

... { course\_id: "PHYS202"}

... ]

... },

...

... {

... student\_id: "09",

... name: "Ritik kumar",

... department: "Electrical Engineering",

... semester: 2,

... age: 18,

... courses: [

... { course\_id: "EE101"},

... { course\_id: "CSCI101"},

... { course\_id: "MATH201"}

... ]

... },

...

... {

... student\_id: "10",

... name: "Aryan Sehgal",

... department: "Mechanical Engineering",

... semester: 1,

... age: 18,

... courses: [

... { course\_id: "MECH101"},

... { course\_id: "MATH201"},

... { course\_id: "PHYS202"}

> db.students.insertOne({

... name: "Karam Virk",

... student\_id: "02",

... department: "Computer Science",

... semester: 2,

... age: 19,

... courses: [

... { course\_id: "CSCI101"},

... { course\_id: "MATH201"},

... { course\_id: "PHYS202"}

> db.departments.insertMany([

... { dp\_id: "CE",

... name: "Civil Engineering",

... faculty: "Engineering",

... location: "Building B" },

...

... { dp\_id: "SC",

... name: "Mathematics",

... faculty: "Science",

... location: "Building A" },

...

... { dp\_id: "CS",

... name: "Computer Science",

... faculty: "Engineering",

... location: "Building A" },

...

... { dp\_id: "MATH",

... name: "Mathematics",

... faculty: "Science",

... location: "Building B" },

...

... { dp\_id: "PHY",

... name: "Physics",

... faculty: "Science",

... location: "Building C" },

...

... { dp\_id: "EE",

... name: "Electrical Engineering",

... faculty: "Engineering",

... location: "Building D" }

> db.courses.find().pretty()

{

"\_id" : ObjectId("663e301670351776199c3ed3"),

"c\_code" : "CS101",

"name" : "Introduction to Computer Science",

"instructor" : "Aditya Kumar",

"department" : "Computer Science",

"credits" : 3,

"skills" : [

"Python",

"Java",

"C++"

]

}

{

"\_id" : ObjectId("663e301670351776199c3ed4"),

"c\_code" : "MAT102",

"name" : "Calculus",

"instructor" : "Sandeep Goyal",

"department" : "Mathematics",

"credits" : 4,

"skills" : [

"Differential Calculus",

"Integral Calculus",

"Multivariable Calculus"

]

}

{

"\_id" : ObjectId("663e301670351776199c3ed5"),

"c\_code" : "CE103",

"name" : "Intro to Civil Engineering",

"instructor" : "Karminder Singh",

"department" : "Civil Engineering",

"credits" : 3,

"skills" : [

"Structural Analysis and Design",

"Construction Management",

"Geotechnical Engineering"

]

}

{

"\_id" : ObjectId("663e301670351776199c3ed6"),

"c\_code" : "PHYS104",

"name" : "Physics",

"instructor" : "Piyush Verma",

"department" : "PHY",

"credits" : 4,

"skills" : [

"Quantum Mechanics",

"Particle Physics",

"Thermodynamics"

]

}

{

"\_id" : ObjectId("663e301670351776199c3ed7"),

"c\_code" : "EE105",

"name" : "Introduction to Electrical Engineering",

"instructor" : "Inderjit Kaur",

"department" : "EE",

"credits" : 3,

"skills" : [

"Circuit Analysis and Design",

"Control Systems",

"Signal Processing"

]> db.grades.find().pretty()

{

"\_id" : ObjectId("663e342870351776199c3ed8"),

"student\_id" : "01",

"c\_code" : "CE103",

"grade" : "A",

"grade\_point" : 9

}

{

"\_id" : ObjectId("663e342870351776199c3ed9"),

"student\_id" : "02",

"c\_code" : "CE103",

"grade" : "B",

"grade\_point" : 7

}

{

"\_id" : ObjectId("663e342870351776199c3eda"),

"student\_id" : "03",

"c\_code" : "CS101",

"grade" : "A",

"grade\_point" : 9

}

{

"\_id" : ObjectId("663e342870351776199c3edb"),

"student\_id" : "04",

"c\_code" : "CE103",

"grade" : "C",

"grade\_point" : 6

}

{

"\_id" : ObjectId("663e342870351776199c3edc"),

"student\_id" : "05",

"c\_code" : "EE105",

"grade" : "A+",

"grade\_point" : 10

}

{

"\_id" : ObjectId("663e342870351776199c3edd"),

"student\_id" : "06",

"c\_code" : "PHYS104",

"grade" : "B",

"grade\_point" : 7

}

{

"\_id" : ObjectId("663e342870351776199c3ede"),

"student\_id" : "07",

"c\_code" : "CS101",

"grade" : "C",

"grade\_point" : 6

}

{

"\_id" : ObjectId("663e342870351776199c3edf"),

"student\_id" : "08",

"c\_code" : "CS101",

"grade" : "B+",

"grade\_point" : 8

}

{

"\_id" : ObjectId("663e342870351776199c3ee0"),

"student\_id" : "09",

"c\_code" : "EE105",

"grade" : "A+",

"grade\_point" : 10

}

{

"\_id" : ObjectId("663e342870351776199c3ee1"),

"student\_id" : "10",

"c\_code" : "PHYS104",

"grade" : "B+",

"grade\_point" : 8

}

>> db.faculty.insertOne({

... faculty\_id: "FA1",

... name: "Aditya Kumar",

... departments: [

... {

... department: "Computer Science",

... position: "Professor"

... }

... ],

... email: "Aditya.kumar@gmail.com",

... phone: "91-22-1234-5678"

> db.faculty.insertMany([

... {

... faculty\_id: "FA2",

... name: "Sandeep Goyal",

... departments: [

... {

... department: "Mathematics",

... position: "Professor"

... }

... ],

... email: "Sandeep.goyal@gmail.com",

... phone: "91-21-2457-6792"

... },

... {

... faculty\_id: "FA3",

... name: "Karminder Singh",

... departments: [

... {

... department: "Civil Engineering",

... position: "Assistant Professor"

... }

... ],

... email: "Ksingh@gmail.com",

... phone: "91-23-4467-8369"

... },

... {

... faculty\_id: "FA4",

... name: "Piyush Verma",

... departments: [

... {

... department: "PHY",

... position: "Professor"

... }

... ],

... email: "PVerma@gmail.com",

... phone: "91-267-4532-6767"

... },

... {

... faculty\_id: "FA5",

... name: "Inderjit Kaur",

... departments: [

... {

... department: "EE",

... position: "Assistant Professor"

... }

... ],

... email: "Ikaur@gmail.com",

... phone: "91-23-4233-6767"