http://localhost:3030/api/accounts/signup

For SignUp -> Post method -> Body -> x-www-form-urlencoded

```
2-
{
    email: negin@gmail.com
    password: abc123
    name: negin mortazavi
}
3-
{
    email: alex@gmail.com
    password: alex123
    name: Alex
}
4-
{
    email: emy@gmail.com
    password: emy123
    name: Emy
}
5-
{
    email: christine@yahoo.com
    password: christine_1
    name: Christine
}
6-
{
    email: web@development.com
```

```
password: cs5610
    name: Web Project
}
7-
{
    email: john@husky.neu.edu
    password: 9876
    name: John Smith
}
8-
{
    email: phil@outlook.com
    password: !ab492
    name: Philip Gust
}
9-
{
    email: course@outlook.com
     password: course
    name: Negin Alex Christine
}
10-
{
    email: peter@outlook.com
    password: 1p2e3t4e5r
    name: Peter Johnson
}
http://localhost:3030/api/accounts/login
For Login -> Post method -> Body -> x-www-form-urlencoded
1-
email: negin@gmail.com
```

```
password: abc123
since it is in database, you will receive:
  "success": true,
  "mesage": "You got your token",
  "token":
"eyJhbGciOiJIUzI1NiIsInR5cCl6lkpXVCJ9.eyJ1c2Vyljp7lmFkZHJlc3MiOnsiY2l0eSl6
ImF3c29tZSIsImNvdW50cnkiOiJVU0EiLCJzdGF0ZSI6IkNBIn0sImNyZWF0ZWQiOil
yMDE4LTA0LTEzVDA0OjUxOjQyLjU1OFoiLCJfaWQiOil1YWQwMzc1ZWQ3YWUxMz
E1NzZmZWQ5NTciLCJuYW1lljoibmVnaW4gbW9ydGF6YXZpliwiZW1haWwiOiJuZW
dpbkBnbWFpbC5jb20iLCJwYXNzd29yZCI6IiQyYSQxMCRMVmRGQXdKdWN3dHR
Ka2J0SVVCLnYuLkFqR1hFVnhEQnExQ1lyMWN2aXdaWDl1U280QWJULilsInBpY3R1
cmUiOiJodHRwczovL2dyYXZhdGFyLmNvbS9hdmF0YXIvNGFkY2NhNDliM2IxZTVh
MDhhYzlwMmY1ZDVhOWU2ODq czlwMCZkPXJldHJvliwiX192ljowfSwiaWF0ljoxNT
IzNjU3MDcxLCJleHAiOjE1MjQyNjE4NzF9.AlYSW125VMfrLp_QrJvrKVpai_-
VDdwntM8jVUF77PQ"
}
2-
email: negin1@gmail.com
password: abc123
since email is wrong you will receive:
  "success": false,
  "message": "Login failed, Student not found"
}
3-
email: negin1@gmail.com
password: abc1234
since password is wrong, you will receive:
  "success": false,
  "message": "Login failed. You entered wrong password"
}
http://localhost:3030/api/accounts/profile
```

for retreiving the profile:

```
GET method -> Headers ->
Authorization: provide the token from one of the users
Body -> x-www-form-urlencoded
email: negin@gmail.com
password: abc123
then it will give you the following:
{
  "success": true,
  "user": {
    "address": {
       "city": "awsome",
       "country": "USA",
      "state": "CA"
    },
    "created": "2018-04-13T04:51:42.558Z",
    "_id": "5ad0375ed7ae131576fed957",
    "name": "negin mortazavi",
    "email": "negin@gmail.com",
    "password":
"$2a$10$LVdFAwJucwttJkbtIUB.v..AjGXEVxDBq1CR21cviwZX9uSo4AbT.",
    "picture": "https://gravatar.com/avatar/
4adcca49b3b1e5a08ac202f5d5a9e688?s200&d=retro",
    "__v": 0
  },
  "message": "Successful"
}
if you do not provide the token:
  "success": false,
  "message": "No token provided"
}
and if the token you provided is wrong or the user with that token is not in
database:
  "success": false,
  "message": "Failed to authenticate token"
```

```
}
for editing the profile:
Post method -> Headers ->
Authorization: provide the token from one of the users
Body -> x-www-form-urlencoded
{
    email: abc@gmail.com
     password: abc123
    name: mr ABC
}
then you will get:
{
  "success": true,
  "message": "You successfully edited your profile"
}
if you do not provide token:
  "success": false,
  "message": "No token provided"
}
For retreiving the semesters
http://localhost:3030/api/semesters
GET Method -> no need for token
{
  "success": true,
  "message": "Success",
  "semesters": [
      "created": "2018-04-14T20:39:22.422Z",
       "_id": "5ad266fa13baf31f6bbfaee9",
```

```
"name": "Spring 2018",
  " v": 0
},
{
  "created": "2018-04-14T20:41:00.225Z",
  "_id": "5ad2675c13baf31f6bbfaeeb",
  "name": "Fall 2017",
  " v": 0
},
{
  "created": "2018-04-14T20:41:06.619Z",
  " id": "5ad2676213baf31f6bbfaeec",
  "name": "Summer 2017",
  " v": 0
},
{
  "created": "2018-04-14T20:41:16.542Z",
  "_id": "5ad2676c13baf31f6bbfaeed",
  "name": "Spring 2017",
  "__v": 0
},
  "created": "2018-04-14T20:41:21.883Z",
  "_id": "5ad2677113baf31f6bbfaeee",
  "name": "Fall 2016",
  " v": 0
},
  "created": "2018-04-14T20:41:30.817Z",
  "_id": "5ad2677a13baf31f6bbfaeef",
  "name": "Summer 2016",
  " v": 0
},
  "created": "2018-04-14T20:42:16.664Z",
  "_id": "5ad267a813baf31f6bbfaef0",
  "name": "Spring 2016",
  " v": 0
},
  "created": "2018-04-14T20:42:23.146Z",
  "_id": "5ad267af13baf31f6bbfaef1",
  "name": "Fall 2015",
```

```
" v": 0
    },
       "created": "2018-04-14T20:42:32.078Z",
       "_id": "5ad267b813baf31f6bbfaef2",
       "name": "Summer 2015",
       " v": 0
    },
       "created": "2018-04-14T20:43:07.741Z",
       "_id": "5ad267db13baf31f6bbfaef3",
       "name": "Spring 2015",
       " v": 0
    }
  1
}
POST Method -> Body -> x-www-form-urlencoded
name
         Fall 2016
http://localhost:3030/api/courses
For retreiving the courses, to get all the courses
GET Method -> no need for token
{
  "success": true,
  "message": "semester",
  "courses": [
    {
       "reviews": [],
       "created": "2018-04-16T02:20:58.091Z",
       "_id": "5ad4088aa43cb02510b9d0ec",
       "name": "Discrete and Data Structures",
       "instructor": "Philip James Gust ",
```

"description": "Introduces the mathematical structures and methods that form the foundation of computer science. Studies structures such as sets, tuples, sequences, lists, trees, and graphs. Discusses functions, relations, ordering, and equivalence relations. Examines inductive and recursive definitions of structures and functions. Covers principles of proof such as truth tables, inductive proof, and basic logic and the counting techniques and arguments needed to estimate the size of sets, the growth of functions, and the space-time complexity of algorithms.

Also, discusses data structures such as arrays, stacks, queues, lists, and the algorithms that manipulate them. ",

```
"number": "CS5002",
  "credit": 4,
  "semester": {
    "created": "2018-04-14T20:41:00.225Z",
    "_id": "5ad2675c13baf31f6bbfaeeb",
    "name": "Fall 2017".
    " v": 0
  },
  " v": 1,
  "review": [
    "5ad4da6d294de029742316ae"
  "id": "5ad4088aa43cb02510b9d0ec"
},
{
  "reviews": [],
  "created": "2018-04-16T02:22:03.130Z",
  "_id": "5ad408cba43cb02510b9d0ed",
  "name": "Intensive Foundations of Computer Science",
  "instructor": "Philip James Gust ",
```

"description": "Introduces the fundamental ideas of computing and programming principles. Discusses a systematic approach to word problems, including analytic reading, synthesis, goal setting, planning, plan execution, and testing. Presents several models of computing, beginning with functional program design. The latter part of the course consists of two parts: a task organization (ranging from the description of data to the creation of a test suite) and a data-oriented approach to the organization of programs (ranging from atomic data to self-referential data definitions and functions as data). Offers students an opportunity to practice pair programming and public code review techniques, as found in industry today. No prior programming experience is assumed; therefore, suitable for students with little or no computer science background. ",

```
"number": "CS5001",
"credit": 4,
"semester": {
    "created": "2018-04-14T20:41:00.225Z",
    "_id": "5ad2675c13baf31f6bbfaeeb",
    "name": "Fall 2017",
    "__v": 0
},
"__v": 0,
"id": "5ad408cba43cb02510b9d0ed"
```

```
},
{
    "reviews": [],
    "created": "2018-04-16T02:23:28.523Z",
    "_id": "5ad40920a43cb02510b9d0ee",
    "name": "Computer Science and Its Applications",
    "instructor": "Karl J Lieberherr",
```

"description": "Introduces students to the field of computer science and the patterns of thinking that enable them to become intelligent users of software tools in a problem-solving setting. Examines several important software applications so that students may develop the skills necessary to use computers effectively in their own disciplines. ",

```
"number": "CS1100",
  "credit": 4,
  "semester": {
    "created": "2018-04-14T20:41:00.225Z",
    "_id": "5ad2675c13baf31f6bbfaeeb",
    "name": "Fall 2017",
    "_v": 0
  },
  "_v": 0.
  "id": "5ad40920a43cb02510b9d0ee"
},
  "reviews": [],
  "created": "2018-04-16T02:25:17.297Z",
  "_id": "5ad4098da43cb02510b9d0ef",
  "name": "Logic and Computation",
  "instructor": "David William Sprague",
```

"description": "Introduces formal logic and its connections to computer and information science. Offers an opportunity to learn to translate statements about the behavior of computer programs into logical claims and to gain the ability to prove such assertions both by hand and using automated tools. Considers approaches to proving termination, correctness, and safety for programs. Discusses notations used in logic, propositional and first order logic, logical inference, mathematical induction, and structural induction. Introduces the use of logic for modeling the range of artifacts and phenomena that arise in computer and information science. ",

```
"number": "CS2800",
"credit": 4,
"semester": {
    "created": "2018-04-14T20:41:00.225Z",
    "_id": "5ad2675c13baf31f6bbfaeeb",
```

```
"name": "Fall 2017",

"__v": 0
},

"__v": 0,

"id": "5ad4098da43cb02510b9d0ef"
},
{

"reviews": [],

"created": "2018-04-16T02:26:06.589Z",

"_id": "5ad409bea43cb02510b9d0f0",

"name": "Lab for CS 2800",

"instructor": "David William Sprague",
```

"description": "Introduces formal logic and its connections to computer and information science. Offers an opportunity to learn to translate statements about the behavior of computer programs into logical claims and to gain the ability to prove such assertions both by hand and using automated tools. Considers approaches to proving termination, correctness, and safety for programs. Discusses notations used in logic, propositional and first order logic, logical inference, mathematical induction, and structural induction. Introduces the use of logic for modeling the range of artifacts and phenomena that arise in computer and information science. ",

```
"number": "CS281",
  "credit": 1,
  "semester": {
    "created": "2018-04-14T20:41:00.225Z",
    " id": "5ad2675c13baf31f6bbfaeeb",
    "name": "Fall 2017",
    " v": 0
  },
  " v": 0.
  "id": "5ad409bea43cb02510b9d0f0"
},
  "reviews": [],
  "created": "2018-04-16T02:26:58.139Z",
  "_id": "5ad409f2a43cb02510b9d0f1",
  "name": "Database Design",
  "instructor": "Ghita Amor-Tijani",
```

"description": "Studies the design of a database for use in a relational database management system. The entity-relationship model and normalization are used in problems. Relational algebra and then the SQL (structured query language) are presented. Advanced topics include triggers, stored procedures, indexing, elementary query optimization, and fundamentals of concurrency and

recovery. Students implement a database schema and short application programs on one or more commercial relational database management systems. ",

```
"number": "CS3200",
  "credit": 4,
  "semester": {
    "created": "2018-04-14T20:41:00.225Z",
    "_id": "5ad2675c13baf31f6bbfaeeb",
    "name": "Fall 2017".
    " v": 0
  },
  " v": 0.
  "id": "5ad409f2a43cb02510b9d0f1"
},
{
  "reviews": [],
  "created": "2018-04-16T06:44:33.662Z",
  "_id": "5ad44651270c1d2702d86cb9",
  " v": 0,
  "id": "5ad44651270c1d2702d86cb9"
},
  "reviews": [],
  "created": "2018-04-16T02:27:36.983Z",
  "_id": "5ad40a18a43cb02510b9d0f2",
  "name": "Object-Oriented Design",
  "instructor": "Amit Prakash Shesh",
```

"description": "Presents a comparative approach to object-oriented programming and design. Discusses the concepts of object, class, meta-class, message, method, inheritance, and genericity. Reviews forms of polymorphism in object-oriented languages. Contrasts the use of inheritance and composition as dual techniques for software reuse: forwarding vs. delegation and subclassing vs. subtyping. Fosters a deeper understanding of the principles of object-oriented programming and design including software components, object-oriented design patterns, and the use of graphical design notations such as UML (unified modeling language). Basic concepts in object-oriented design are illustrated with case studies in application frameworks and by writing programs in one or more object-oriented languages. ",

```
"number": "CS3500",

"credit": 4,

"semester": {
    "created": "2018-04-14T20:41:00.225Z",
    "_id": "5ad2675c13baf31f6bbfaeeb",
    "name": "Fall 2017",
```

```
"_v": 0
},
"_v": 0,
"id": "5ad40a18a43cb02510b9d0f2"
},
{

"reviews": [],
"created": "2018-04-16T02:28:34.835Z",
"_id": "5ad40a52a43cb02510b9d0f3",
"name": "Programming in C++",
"instructor": "Seth Everett Cooper",
```

"description": "Examines how to program in C++ in a robust and safe manner. Reviews basics, including scoping, typing, and primitive data structures. Discusses data types (primitive, array, structure, class, string); addressing/ parameter mechanisms (value, pointer, reference); stacks; queues; linked lists; binary trees; hash tables; and the design of classes and class inheritance, emphasizing single inheritance. Considers the instantiation of objects, the trade-offs of stack vs. heap allocation, and the design of constructors and destructors. Emphasizes the need for a strategy for dynamic memory management. Addresses function and operator overloading; templates, the Standard Template Library (STL), and the STL components (containers, generic algorithms, iterators, adaptors, allocators, function objects); streams; exception handling; and system calls for processes and threads. ",

```
"number": "CS3520",
  "credit": 4,
  "semester": {
    "created": "2018-04-14T20:41:00.225Z",
    " id": "5ad2675c13baf31f6bbfaeeb",
    "name": "Fall 2017",
    " v": 0
  },
  " v": 0.
  "id": "5ad40a52a43cb02510b9d0f3"
},
  "reviews": [],
  "created": "2018-04-16T02:32:00.052Z",
  "_id": "5ad40b20a43cb02510b9d0f5",
  "name": "Computer Science/Information Science Overview 1",
  "instructor": "Megan Michelle Giordano",
```

"description": "Introduces students to the College of Computer and Information Science (CCIS) and begins their preparation for careers in the computing and information fields. Offers students an opportunity to learn how to thrive at Northeastern and within CCIS by developing academic, professional, and interpersonal skills. Covers the variety of careers available in the high-technology professions. Students work in groups to create and deliver presentations on careers in the field. Intended for freshmen.",

```
"number": "CS1200",
       "credit": 1,
       "semester": {
         "created": "2018-04-14T20:39:22.422Z",
         "_id": "5ad266fa13baf31f6bbfaee9",
         "name": "Spring 2018",
         "_v": 0
       " v": 0.
       "id": "5ad40b20a43cb02510b9d0f5"
    }
  ],
  "totalCourses": 24,
  "pages": 3
}
for posting the courses:
POST method:
http://localhost:3030/api/course
POST Method -> Body -> x-www-form-urlencoded
name
instructor
description
number
semesterId: find id of one semester
credit
```

To get just one course based on the id of that course: GET Method http://localhost:3030/api/course/5ad4088aa43cb02510b9d0ec

To post the sales of student for any course note or book:

http://localhost:3030/api/post/sale

POST method:

```
Authorization: token related to login information
title:
description
rating
price
sale_picture
courseld
edition
author
To retrieve the information of sales for specific owner(student):
http://localhost:3030/api/post/sale
GET method:
  "success": true,
  "message": "Sales",
  "sales": [
       "created": "2018-04-16T06:50:57.256Z",
       "_id": "5ad447d1fcc624271189bb54",
       "owner": {
         "address": {
           "city": "awsome",
           "country": "USA",
           "state": "CA"
         },
         "created": "2018-04-13T04:51:42.558Z",
         "_id": "5ad0375ed7ae131576fed957",
         "name": "negin mortazavi",
         "email": "negin@gmail.com",
         "password":
"$2a$10$LVdFAwJucwttJkbtIUB.v..AjGXEVxDBq1CR21cviwZX9uSo4AbT.",
         "picture": "https://gravatar.com/avatar/
4adcca49b3b1e5a08ac202f5d5a9e688?s200&d=retro",
         "_v": 0
       },
       "course": {
         "created": "2018-04-16T02:20:58.091Z",
         "_id": "5ad4088aa43cb02510b9d0ec",
         "name": "Discrete and Data Structures",
         "instructor": "Philip James Gust ",
```

"description": "Introduces the mathematical structures and methods that form the foundation of computer science. Studies structures such as sets, tuples, sequences, lists, trees, and graphs. Discusses functions, relations, ordering, and equivalence relations. Examines inductive and recursive definitions of structures and functions. Covers principles of proof such as truth tables, inductive proof, and basic logic and the counting techniques and arguments needed to estimate the size of sets, the growth of functions, and the space-time complexity of algorithms. Also, discusses data structures such as arrays, stacks, queues, lists, and the algorithms that manipulate them. ",

```
"number": "CS5002",
"credit": 4,
"semester": "5ad2675c13baf31f6bbfaeeb",
"__v": 0
},
"title": "Data Structures and Algorithms in Java",
"author": "Michael T. Goodrich, Roberto Tamassia, Michael H. Goldwasser",
"price": 168,
"edition": 6,
"rating": "very good",
```

"description": "The design and analysis of efficient data structures has long been recognized as a key component of the Computer Science curriculum. Goodrich, Tomassia and Goldwasser's approach to this classic topic is based on the object-oriented paradigm as the framework of choice for the design of data structures. For each ADT presented in the text, the authors provide an associated Java interface. Concrete data structures realizing the ADTs are provided as Java classes implementing the interfaces. The Java code implementing fundamental data structures in this book is organized in a single Java package, net.datastructures. This package forms a coherent library of data structures and algorithms in Java specifically designed for educational purposes in a way that is complimentary with the Java Collections Framework.",

```
"image": "https://webprojectcs5610.s3.amazonaws.com/1523861456664",
    "__v": 0
},
{
    "created": "2018-04-16T06:56:34.277Z",
    "_id": "5ad44922fcc624271189bb55",
    "owner": {
        "address": {
            "city": "awsome",
            "country": "USA",
            "state": "CA"
        },
        "created": "2018-04-13T04:51:42.558Z",
```

"description": "Introduces the mathematical structures and methods that form the foundation of computer science. Studies structures such as sets, tuples, sequences, lists, trees, and graphs. Discusses functions, relations, ordering, and equivalence relations. Examines inductive and recursive definitions of structures and functions. Covers principles of proof such as truth tables, inductive proof, and basic logic and the counting techniques and arguments needed to estimate the size of sets, the growth of functions, and the space-time complexity of algorithms. Also, discusses data structures such as arrays, stacks, queues, lists, and the algorithms that manipulate them. ",

```
"number": "CS5002",
"credit": 4,
"semester": "5ad2675c13baf31f6bbfaeeb",
"_v": 0
},
"title": "Data Structures and Algorithms in Java",
"author": "Michael T. Goodrich, Roberto Tamassia, Michael H. Goldwasser",
"price": 168,
"edition": 6,
"rating": "very good",
```

"description": "The design and analysis of efficient data structures has long been recognized as a key component of the Computer Science curriculum. Goodrich, Tomassia and Goldwasser's approach to this classic topic is based on the object-oriented paradigm as the framework of choice for the design of data structures. For each ADT presented in the text, the authors provide an associated Java interface. Concrete data structures realizing the ADTs are provided as Java classes implementing the interfaces. The Java code implementing fundamental data structures in this book is organized in a single Java package, net.datastructures. This package forms a coherent library of data structures and algorithms in Java specifically designed for educational purposes in a way that is

```
complimentary with the Java Collections Framework.",
       "image": "https://webprojectcs5610.s3.us-west-1.amazonaws.com/
1523861793981",
       " v": 0
    }
  1
}
To retrieve the information of sales for specific course:
http://localhost:3030/api/post/sales/id of course
GET method:
{
  "success": true,
  "message": "Sales",
  "sales": [
    {
       "created": "2018-04-16T06:50:57.256Z",
       "_id": "5ad447d1fcc624271189bb54",
       "owner": {
         "address": {
           "city": "awsome",
           "country": "USA",
           "state": "CA"
         },
         "created": "2018-04-13T04:51:42.558Z",
         " id": "5ad0375ed7ae131576fed957",
         "name": "negin mortazavi",
         "email": "negin@gmail.com",
         "password":
"$2a$10$LVdFAwJucwttJkbtIUB.v..AjGXEVxDBq1CR21cviwZX9uSo4AbT.",
         "picture": "https://gravatar.com/avatar/
4adcca49b3b1e5a08ac202f5d5a9e688?s200&d=retro",
         " v": 0
       },
       "course": {
         "created": "2018-04-16T02:20:58.091Z",
         "_id": "5ad4088aa43cb02510b9d0ec",
         "name": "Discrete and Data Structures",
         "instructor": "Philip James Gust ",
         "description": "Introduces the mathematical structures and methods that
form the foundation of computer science. Studies structures such as sets, tuples,
```

sequences, lists, trees, and graphs. Discusses functions, relations, ordering, and equivalence relations. Examines inductive and recursive definitions of structures and functions. Covers principles of proof such as truth tables, inductive proof, and basic logic and the counting techniques and arguments needed to estimate the size of sets, the growth of functions, and the space-time complexity of algorithms. Also, discusses data structures such as arrays, stacks, queues, lists, and the algorithms that manipulate them. ",

```
"number": "CS5002",
   "credit": 4,
   "semester": "5ad2675c13baf31f6bbfaeeb",
   "__v": 0
},
"title": "Data Structures and Algorithms in Java",
"author": "Michael T. Goodrich, Roberto Tamassia, Michael H. Goldwasser",
"price": 168,
"edition": 6,
"rating": "very good",
```

"description": "The design and analysis of efficient data structures has long been recognized as a key component of the Computer Science curriculum. Goodrich, Tomassia and Goldwasser's approach to this classic topic is based on the object-oriented paradigm as the framework of choice for the design of data structures. For each ADT presented in the text, the authors provide an associated Java interface. Concrete data structures realizing the ADTs are provided as Java classes implementing the interfaces. The Java code implementing fundamental data structures in this book is organized in a single Java package, net.datastructures. This package forms a coherent library of data structures and algorithms in Java specifically designed for educational purposes in a way that is complimentary with the Java Collections Framework.",

To retreive all sales (book, note) for all students and courses

http://localhost:3030/api/post/sales