SEAN OVERTON SN:6421490
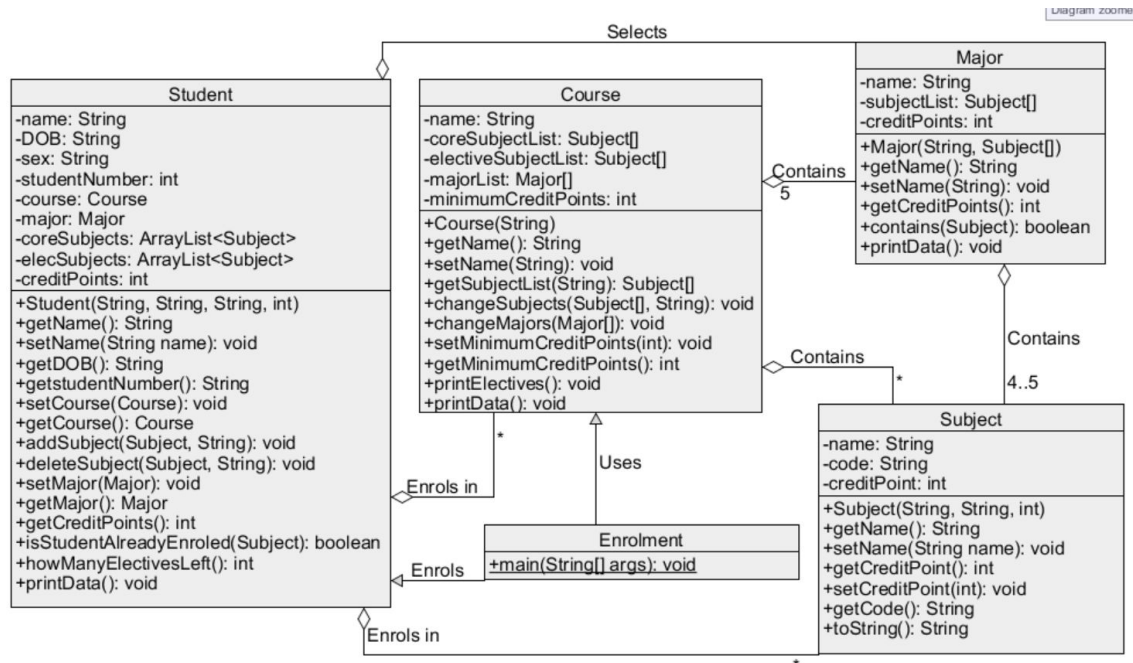**Task 1: UML Class diagram**

Task 2: Program
-submitted separately as Enrolment.java
Task 3: Testing and Compilation
The initial compilation and printout is only shown once because it is identical between the
two cases. Inputs are tested successfully with two different cases and is shown after first two
screenshots.

```
C:\Users\Sean\Desktop\Other stuff\UNI\CSI121 OOP\ass1>javac Enrolment.java

C:\Users\Sean\Desktop\Other stuff\UNI\CSI121 OOP\ass1>java Enrolment
Welcome to enrol the Bachelor of Computer Science course.
The course structure is as follows:
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Course: Bachelor of Computer Science

Core Subjects:
CSIT111 (Programming Fundamentals, 6pt)
CSIT113 (Problem solving, 6pt)
CSIT114 (System Analysis, 6pt)
CSIT115 (Data Management and Security, 6pt)
CSIT121 (Object Oriented Design and Programming, 6pt)
CSIT127 (Networks and Communications, 6pt)
CSIT128 (Introduction to Web Technology, 6pt)
CSCI235 (Database Systems, 6pt)
CSCI251 (Advanced Programming, 6pt)
CSIT214 (IT Project Management, 6pt)
MATH221 (Mathematics for Computer Science, 6pt)
CSCI203 (Data Structures and Algorithms, 6pt)
CSIT226 (Human Computer Interaction, 6pt)
CSIT314 (Software Development Methodologies, 6pt)
CSIT321 (Project, 12pt)

Major Big Data
-CSCI317 (Database Performance Tuning, 6pt)
-INFO411 (Data Mining and Knowledge Discovery, 6pt)
-CSCI316 (Big Data Mining Techniques and Implementation, 6pt)
-ISIT312 (Big Data Management, 6pt)
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Major Cyber Security
-CSCI301 (Contemporary Topics in Security, 6pt)
-CSCI262 (System Security, 6pt)
-CSCI369 (Ethical Hacking, 6pt)
-CSIT302 (Cybersecurity, 6pt)

Major Digital System Security
-CSCI361 (Cryptography and Secure Applications, 6pt)
-CSCI368 (Network Security, 6pt)
-CSCI262 (System Security, 6pt)
-CSCI376 (Multicore and GPU Programming, 6pt)

Major Software Engineering
-CSCI334 (Software Design, 6pt)
-ISIT219 (Knowledge and Information Engineering, 6pt)
-CSCI318 (Software Engineering Practices and Principles, 6pt)
-ISIT315 (Semantic Web, 6pt)

Major Game and Mobile Development
-CSCI236 (3D Modelling and Animation, 6pt)
-CSCI336 (Interactive Computer Graphics, 6pt)
-CSCI356 (Game Engine Essentials, 6pt)
-CSCI366 (Mobile Multimedia, 6pt)
-CSCI376 (Multicore and GPU Programming, 6pt)


Elective Subjects:
CSCI317 (Database Performance Tuning, 6pt)
INFO411 (Data Mining and Knowledge Discovery, 6pt)
CSCI316 (Big Data Mining Techniques and Implementation, 6pt)
ISIT312 (Big Data Management, 6pt)
CSCI301 (Contemporary Topics in Security, 6pt)
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CSCI301 (Contemporary Topics in Security, 6pt)
CSCI262 (System Security, 6pt)
CSCI369 (Ethical Hacking, 6pt)
CSIT302 (Cybersecurity, 6pt)
CSCI361 (Cryptography and Secure Applications, 6pt)
CSCI368 (Network Security, 6pt)
CSCI376 (Multicore and GPU Programming, 6pt)
CSCI236 (3D Modelling and Animation, 6pt)
CSCI336 (Interactive Computer Graphics, 6pt)
CSCI356 (Game Engine Essentials, 6pt)
CSCI366 (Mobile Multimedia, 6pt)
CSCI334 (Software Design, 6pt)
CSCI318 (Software Engineering Practices and Principles, 6pt)
ISIT219 (Knowledge and Information Engineering, 6pt)
ISIT315 (Semantic Web, 6pt)

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The following information is required to complete student enrolment:
Please enter your full name:Fenghui Ren
Please enter your student number:1000000
Please enter your gender:male
Please enter your date of birth (14/08/2000):01/01/1981
Thanks for your information.
In order to complete your enrolment, please select a major from the list:

1. Big Data
2. Cyber Security
3. Digital System Security
4. Game and Mobile Development
5. Software Engineering

Please input the index number before the major:1
```

```
You enrolled into:
Major Big Data
-CSCI317 (Database Performance Tuning, 6pt)
-INFO411 (Data Mining and Knowledge Discovery, 6pt)
-CSCI316 (Big Data Mining Techniques and Implementation, 6pt)
-ISIT312 (Big Data Management, 6pt)

In order to complete the enrolment, please select elective subjects from the list.

Elective Subjects:
CSCI317 (Database Performance Tuning, 6pt)
INFO411 (Data Mining and Knowledge Discovery, 6pt)
CSCI316 (Big Data Mining Techniques and Implementation, 6pt)
ISIT312 (Big Data Management, 6pt)
CSCI301 (Contemporary Topics in Security, 6pt)
CSCI262 (System Security, 6pt)
CSCI369 (Ethical Hacking, 6pt)
CSIT302 (Cybersecurity, 6pt)
CSCI361 (Cryptography and Secure Applications, 6pt)
CSCI368 (Network Security, 6pt)
CSCI376 (Multicore and GPU Programming, 6pt)
CSCI236 (3D Modelling and Animation, 6pt)
CSCI336 (Interactive Computer Graphics, 6pt)
CSCI356 (Game Engine Essentials, 6pt)
CSCI366 (Mobile Multimedia, 6pt)
CSCI334 (Software Design, 6pt)
CSCI318 (Software Engineering Practices and Principles, 6pt)
ISIT219 (Knowledge and Information Engineering, 6pt)
ISIT315 (Semantic Web, 6pt)
```

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Please select 4 more elective subjects
CSCI317
Please select 4 more elective subjects
CSCI262
Please select 3 more elective subjects
CSCI369, CSCI368
Please select 1 more elective subjects
CSCI318, ISIT315

Congratulations. You have completed enrolment into a Bachelor of Computer Science course.
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Student: Fenghui Ren    (1000000, male, 01/01/1981)

Cores:
CSIT111 (Programming Fundamentals, 6pt)
CSIT113 (Problem solving, 6pt)
CSIT114 (System Analysis, 6pt)
CSIT115 (Data Management and Security, 6pt)
CSIT121 (Object Oriented Design and Programming, 6pt)
CSIT127 (Networks and Communications, 6pt)
CSIT128 (Introduction to Web Technology, 6pt)
CSCI235 (Database Systems, 6pt)
CSCI251 (Advanced Programming, 6pt)
CSIT214 (IT Project Management, 6pt)
MATH221 (Mathematics for Computer Science, 6pt)
CSCI203 (Data Structures and Algorithms, 6pt)
CSIT226 (Human Computer Interaction, 6pt)
CSIT314 (Software Development Methodologies, 6pt)
CSIT321 (Project, 12pt)
```

```
Major: Big Data
-CSCI317 (Database Performance Tuning, 6pt)
-INFO411 (Data Mining and Knowledge Discovery, 6pt)
-CSCI316 (Big Data Mining Techniques and Implementation, 6pt)
-ISIT312 (Big Data Management, 6pt)

Electives:
CSCI262 (System Security, 6pt)
CSCI369 (Ethical Hacking, 6pt)
CSCI368 (Network Security, 6pt)
CSCI318 (Software Engineering Practices and Principles, 6pt)
ISIT315 (Semantic Web, 6pt)

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Total enrolled credit points: 150pt

C:\Users\Sean\Desktop\Other stuff\UNI\CSI121 OOP\ass1>
```

TEST FOR THE SECOND CASE WITH DIFFERENT INPUTS:

```
The following information is required to complete student enrolment:
Please enter your full name:Sean
Please enter your student number:12345
Please enter your gender:Male
Please enter your date of birth (14/08/2000):14/08/2000
Thanks for your information.
In order to complete your enrolment, please select a major from the list:

1. Big Data
2. Cyber Security
3. Digital System Security
4. Game and Mobile Development
5. Software Engineering

Please input the index number before the major:2
You enrolled into:
Cyber Security
-CSCI301 (Contemporary Topics in Security, 6pt)
-CSCI262 (System Security, 6pt)
-CSCI369 (Ethical Hacking, 6pt)
-CSIT302 (Cybersecurity, 6pt)

In order to complete the enrolment, please select elective subjects from the list.

Elective Subjects:
CSCI317 (Database Performance Tuning, 6pt)
INFO411 (Data Mining and Knowledge Discovery, 6pt)
CSCI316 (Big Data Mining Techniques and Implementation, 6pt)
ISIT312 (Big Data Management, 6pt)
CSCI301 (Contemporary Topics in Security, 6pt)
CSCI262 (System Security, 6pt)
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CSCI369 (Ethical Hacking, 6pt)
CSIT302 (Cybersecurity, 6pt)
CSCI361 (Cryptography and Secure Applications, 6pt)
CSCI368 (Network Security, 6pt)
CSCI376 (Multicore and GPU Programming, 6pt)
CSCI236 (3D Modelling and Animation, 6pt)
CSCI336 (Interactive Computer Graphics, 6pt)
CSCI356 (Game Engine Essentials, 6pt)
CSCI366 (Mobile Multimedia, 6pt)
CSCI334 (Software Design, 6pt)
CSCI318 (Software Engineering Practices and Principles, 6pt)
ISIT219 (Knowledge and Information Engineering, 6pt)
ISIT315 (Semantic Web, 6pt)

Please select 4 more elective subjects
CSCI301, CSCI262
Please select 4 more elective subjects
CSCI334, ISIT219, ISIT315
Please select 1 more elective subjects
a
Please select 1 more elective subjects
CSCI334
Please select 1 more elective subjects
CSCI366

Congratulations. You have completed enrolment into a Bachelor of Computer Science course.
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Student: Sean    (12345, Male, 14/08/2000)
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Cores:
CSIT111 (Programming Fundamentals, 6pt)
CSIT113 (Problem solving, 6pt)
CSIT114 (System Analysis, 6pt)
CSIT115 (Data Management and Security, 6pt)
CSIT121 (Object Oriented Design and Programming, 6pt)
CSIT127 (Networks and Communications, 6pt)
CSIT128 (Introduction to Web Technology, 6pt)
CSCI235 (Database Systems, 6pt)
CSCI251 (Advanced Programming, 6pt)
CSIT214 (IT Project Management, 6pt)
MATH221 (Mathematics for Computer Science, 6pt)
CSCI203 (Data Structures and Algorithms, 6pt)
CSIT226 (Human Computer Interaction, 6pt)
CSIT314 (Software Development Methodologies, 6pt)
CSIT321 (Project, 12pt)

Major: Cyber Security
-CSCI301 (Contemporary Topics in Security, 6pt)
-CSCI262 (System Security, 6pt)
-CSCI369 (Ethical Hacking, 6pt)
-CSIT302 (Cybersecurity, 6pt)

Electives:
CSCI334 (Software Design, 6pt)
ISIT219 (Knowledge and Information Engineering, 6pt)
ISIT315 (Semantic Web, 6pt)
CSCI366 (Mobile Multimedia, 6pt)


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Total enrolled credit points: 144pt
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