Exercise Description:

You are required to develop a Java program that models the relationship between students and courses. The program will involve creating students and enrolling them in multiple courses, with a maximum limit of courses a student can take.

Details:

1. Student Class (Student.java):

- Represents a student with attributes:
 - name: The name of the student.
 - id: The student's ID.
 - courses[]: An array of Course objects representing the courses the student is enrolled in, with a maximum of 8 courses.
 - numberOfCourses: Tracks how many courses the student is currently enrolled in.

Methods:

- printinfo(): Prints the student's name, ID, and details of all the courses they are enrolled in.
- addCourse (Course aCourse): Enrolls the student in a course if they have not already enrolled in 8 courses.

Constructor:

• Initializes the student's name, ID, and the array for courses.

2. Course Class (Course.java):

- Represents a course with attributes:
 - name: The name of the course.
 - ects: The number of ECTS credits for the course.
 - myStudent: A reference to the student enrolled in the course (used for future expansions if needed).

Methods:

- setStudent(Student myStudent): Associates a student with the course.
- printCourseDetails(): Prints the course name and ECTS credits.

Constructor:

• Initializes the course with its name and ECTS credits.

3. Main Class (Main.java):

- The main class demonstrates the interaction between students and courses.
- Process:
 - A student is created with a name and ID.
 - The student is enrolled in two courses, "Java" and "Machine Learning."
 - The student's information and the courses they are enrolled in are printed.

Task:

- 1. Implement the Student class with methods for printing student information and enrolling them in courses.
- 2. Implement the Course class with methods for printing course details and associating a student with the course.
- 3. In the Main class, simulate the creation of students and courses, enroll the students in courses, and print the final details.

Bonus:

- Add functionality to drop courses if needed.
- Expand the program to handle additional attributes for courses or students, such as grades.

This exercise covers basic object-oriented programming principles such as class relationships, arrays, and methods for interacting between objects in Java.