Driver.java

```java
package class12;

public class Driver {

    public static void main(String[] args) {
        // Association example
        System.out.println("ASSOCIATION EXAMPLE");
        System.out.println(Math.sqrt(25.0));

        // Aggregation example
        System.out.println("AGGREGATION EXAMPLE");
        Professor advisorOne = new Professor("Jim", "Downey", "ABC123");
        Student stuOne = new Student("Grace", "Hopper", "B0123456", advisorOne);
        Student stuTwo = new Student("Steve", "Jobs", "B0456789", advisorOne);
        System.out.println(stuOne);
        System.out.println(stuTwo);

        // Composition example
        System.out.println("COMPOSITION EXAMPLE");
        Course courseOne = new Course("MIS 3339", "Jeff", "Hill", "DEF456");
        courseOne.addStudent(stuOne);
        courseOne.addStudent(stuTwo);
        System.out.println(courseOne);

        // Interface example
        System.out.println("INTERFACE EXAMPLE");
        System.out.println(advisorOne.getID());
        System.out.println(stuOne.getID());
        System.out.println(stuTwo.getID());

        // Interface as simple type example
        System.out.println("INTERFACE AS SIMPLE TYPE EXAMPLE");
        Identifiable demo = stuOne;
        System.out.println(demo.getID());
    } // end main

} // end Driver
```

```java
package class12;

import java.util.ArrayList;

public class Course {
    private final Professor prof;
    private final String title;
    private List<Student> students = new ArrayList<Student>();

    public Course(String title, String fName, String lName, String id) {
        this.title = title;
        this.prof = new Professor(fName, lName, id);
    } // end ctor

    public void addStudent(Student inc) {
        students.add(inc);
    } // end addStudent

    public String toString() {
        Collections.sort(students);
        String roster = "";
        for (Student eachOne: students) {
            roster += eachOne + ", ";
        } // end for
        // gets rid of extra comma and space at end
        roster = roster.substring(0, roster.length() - 2);
        return "The course " + this.title + " is taught by " + this.prof
                + " and includes these students: " + roster;
    } // end toString
} // end Course
```

Professor.java

```java
package class12;

public class Professor implements Identifiable {
    private final String fName;
    private final String lName;
    private final String id;

    public Professor(String fName, String lName, String id) {
        this.fName = fName;
        this.lName = lName;
        this.id = id;
    } // end ctor

    @Override
    public String getID() {
        return this.id;
    } // end getID

    public String toString() {
        return this.fName + " " + this.lName;
    } // end toString
} // end Professor
```

```java
package class12;

public class Student implements Comparable<Student>, Identifiable {
    private final String fName;
    private final String lName;
    private final String id;
    private final Professor advisor;

    public Student(String fName, String lName, String id, Professor advisor) {
        this.fName = fName;
        this.lName = lName;
        this.id = id;
        this.advisor = advisor;
    } // end ctor

    public String getfName() {
        return this.fName;
    } // end getfName

    @Override
    public String getID() {
        return this.id;
    } // end getID

    public String getlName() {
        return this.lName;
    } // end getlName

    public String toString() {
        return this.getfName() + " " + this.getlName() +
                ", advised by " + this.advisor;
    } // end toString

    @Override
    public int compareTo(Student o) {
        return this.getlName().compareTo(o.getlName());
    } // end compareTo
} // end Student
```

Identifiable.java

```java
package class12;

public interface Identifiable {
    public abstract String getID();
} // end Identifiable
```