

```

1  /**
2   * This class represents a student's record within a module, containing their marks,
   average
3   * score, and whether this score is above average for the module
4   */
5  public class StudentRecord {
6
7      private Student student;
8
9      private Module module;
10
11     private double[] marks;
12
13     private double finalScore;
14
15     private Boolean isAboveAverage;
16
17     /**
18      * Constructor for Student Record
19      *
20      * @param student
21      * @param module
22      * @param marks    each mark must be between 0 and 100
23      */
24     public StudentRecord(Student student, Module module, double[] marks) {
25
26
27         // Validates that each mark is between 0 and 100
28         for (double mark : marks) {
29             if (mark > 100 || mark < 0) {
30                 throw new IllegalArgumentException("Each mark must be between 0 and
31                 100");
32             }
33         }
34
35         // Calculates final score
36         double total = 0.0;
37         int count = 0;
38         for (double score : marks) {
39             total += score;
40             count++;
41         }
42
43         // Inits variables
44         this.student = student;
45         this.module = module;
46         this.marks = marks;
47         this.finalScore = total / count;
48     }
49
50     /**
51      * Calculates if the student is above average for the module
52      */
53     public void setAboveAverage() {
54         if (this.finalScore > module.getFinalAverageGrade()) {
55             this.isAboveAverage = true;
56         } else {
57             this.isAboveAverage = false;
58         }
59     }
60
61     public double getFinalScore() {
62         return finalScore;
63     }
64
65     public Module getModule() {
66         return module;
67     }

```

68 }
69
70