Reflection Logs

Credit name: Chapter 9
Assignment Name: Mastery - CourseGrades

```
public class CourseGrades {
    public int StudentNum = 3;
    public int Quizzes = 5;
    private int[][] grades;

    public void getStudent() {
        grades = new  int [StudentNum][Quizzes];
    }
```

Create the getStudent() method for the grades array that has
the size of the number of students times the amount of quizzes students have.

```
public int[][] showStudent() {
    return grades;
}
```

The showStudent() method to return the grades array.

```
public double studentAvg(int stuNum) {
    int sum = 0;
    for (int i = 0; i < grades[0].length; i++) {
        sum += grades[stuNum - 1][i];
    }
    int stuAvg = sum / grades[0].length;
    return stuAvg;
}
```

The studentAvg() method with the stuNum parameter allows the users to choose the student's number to calculate his/her average grade.

```
public double testAvg(int testNum)
{
    int sum = 0;
    double avg = 0;
    for (int i = 0; i < grades.length; i++)
    {
        sum += grades[i][testNum - 1];
    }
    avg = (double)sum/grades.length;

    return avg;
}
```

The testAvg() method with the testNum allows the users to choose the test's number to calculate the class average on that quiz.

```
public static void main(String[] args) {
    Scanner userinput = new Scanner(System.in);
    CourseGrades student = new CourseGrades();


    student.getStudent();
    for (int i = 0; i <student.StudentNum; i++ ) {
        for (int x = 0; x<student.Quizzes; x++) {
            System.out.print("Enter the "+ (i+1) + " student grade: ");
            student.grades[i][x] = userinput.nextInt();
        }
    }

    System.out.println("Here is the student grades: ");
    for (int i = 0; i<student.StudentNum; i++) {
        System.out.print("Student number: "+ (i+1)+ " | ");
        for (int x = 0; x <student.Quizzes; x++) {
            System.out.print(student.grades[i][x]+" ");
            }
        System.out.println(" ");
    }
```

In the main method, it prompts the users to answer the students' quizzes result and then print out the results again for the user to make sure if the result is correct or not.

```
System.out.println("1. Get the student average.");
System.out.println("2. Get the test average.");
int userchoose = userinput.nextInt();

switch (userchoose) {
case 1:
    System.out.print("Enter the student number you want to find the average: ");
    int stu = userinput.nextInt();
    double average = student.studentAvg(stu);
    System.out.print("The average of the " + stu + "(th) student is: "+ average);
    break;
case 2:
    System.out.print("Enter the test you want to find the average: ");
    int test = userinput.nextInt();
    average = student.testAvg(test);
    System.out.print("The average of the " + test + "(th) test is: "+ average);
    break;
}
```

After that, shows two options: calculate the student average or test average.