

# CIS1201

## Assignment 3

- Create the program as specified in these requirements. Read carefully for the details.
- zip your Checkup.java and TestCheckup.java into a zip file and submit in the Assignment 3 drop box
- Output can be done using gui or console

### Requirement#1

Create a class named **Checkup** with instance attributes that hold a patient number, two blood pressure figures (systolic and diastolic which do not have fractions), and two cholesterol figures (LDL and HDL which also do not have decimals). Include methods to get and set each of the fields. Include a method named **computeRatio()** that divides LDL cholesterol by HDL cholesterol and returns the result. Include an additional method named **explainRatio()** that explains that *HDL is known as “good cholesterol” and that a ratio of 3.5 or lower is considered optimum*. Save the class as **Checkup.java**.

### Requirement#2

Create a class named **TestCheckup** whose **main()** method declares two **Checkup** objects. Call a **getData()** method (which is created in **TestCheckup**) two times. Within the **getData** method, prompt a user for values for each field for a **Checkup**, and return a **Checkup** object to the **main()** method where it is assigned to one of **main()**'s **Checkup** objects. Then, in **main()**, pass each **Checkup** object in turn to a **showValues()** method (that is created in the **TestCheckup** class) that displays the data. The **showValues()** method should call the **computeRatio()** method to obtain the cholesterol ratio value for the display.

Blood pressure values are usually displayed with a slash between the systolic and diastolic numbers. (Typical blood pressure values are 110/78 or 130/90.) With the cholesterol figures, display the explanation of the cholesterol ratio calculation. (Typical cholesterol values are 100 and 40 or 180 and 70.) Save the application as **TestCheckup.java**

**Example output (Create as displayed here - can include the patient number if desired)**

Blood Pressure: 110/78  
Cholesterol: 100 and 40  
Cholesterol Ratio: 2.5

HDL is known as “good cholesterol” and that a ratio of 3.5 or lower is considered optimum