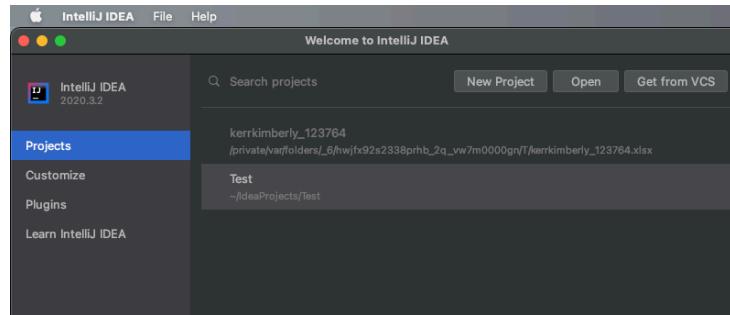
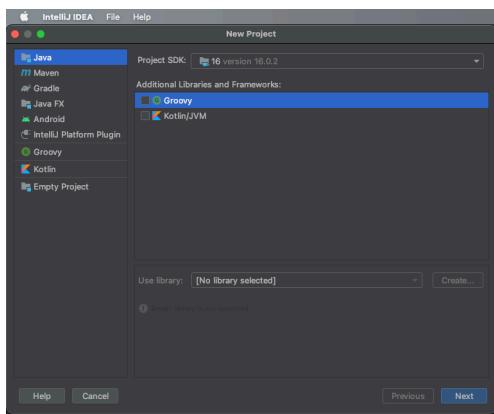


# COP 2210 Lab 1

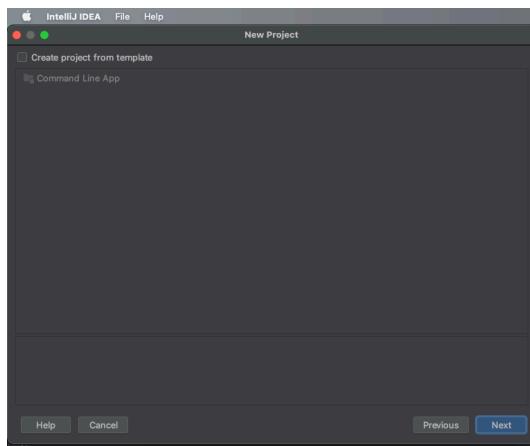
## 1. Open IntelliJ and create a new Project



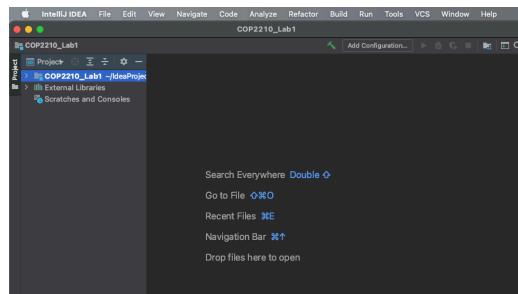
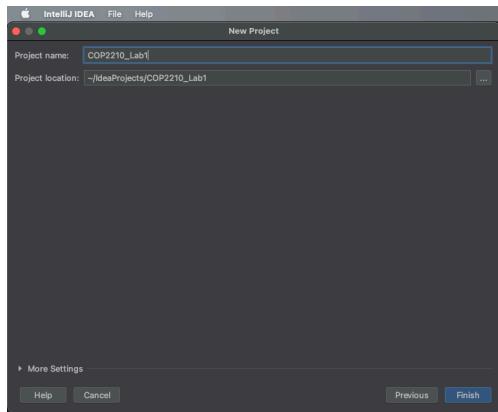
## 2. Click the next button



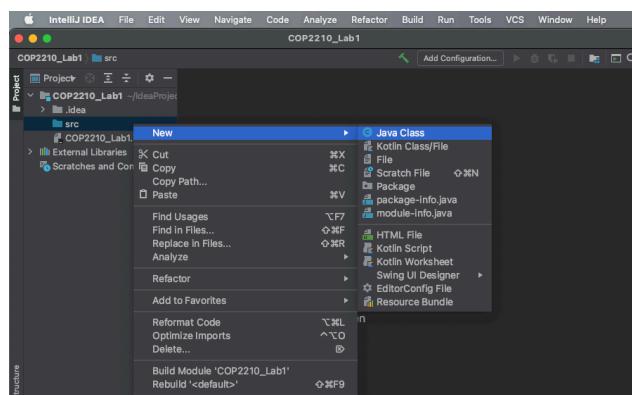
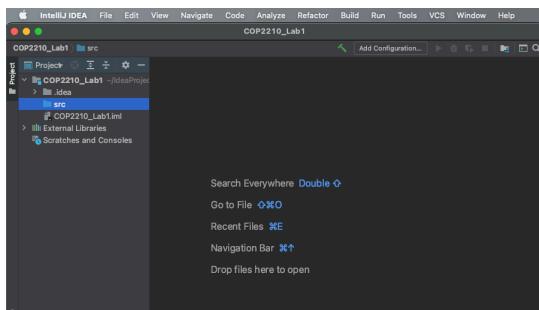
## 3. Click next



4. In the Project name field type -> COP2210\_Lab1 and click the Finish button



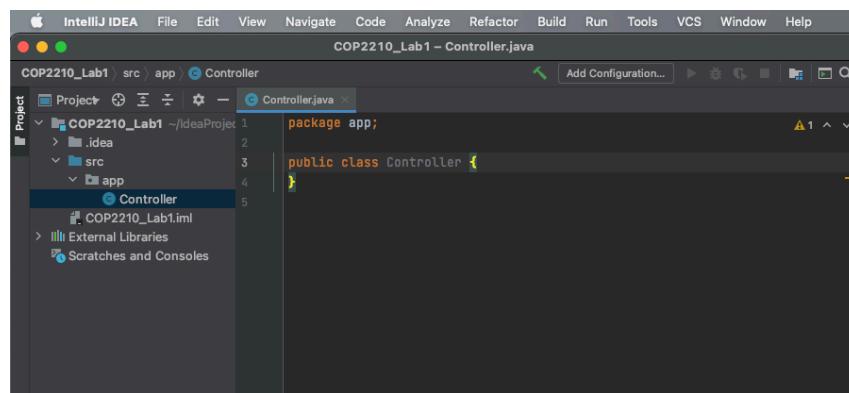
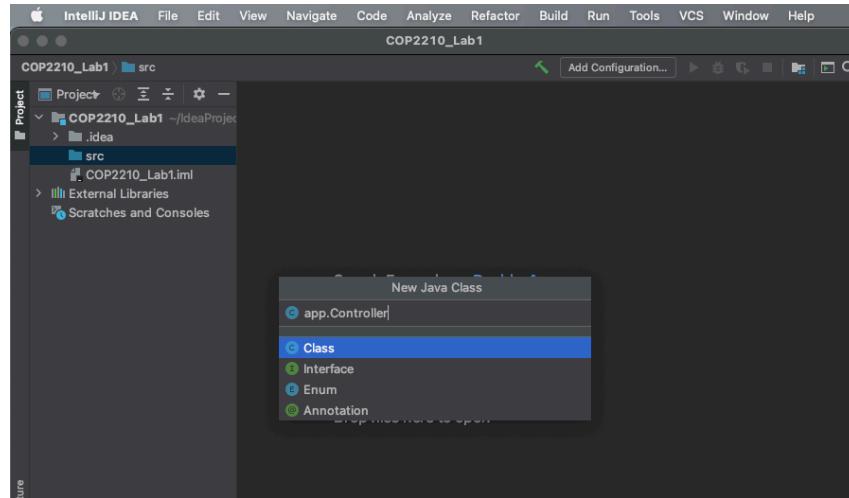
5. Click the Project Tab on the left side and right click on the src folder icon



## 6. Create a new class named app.Controller

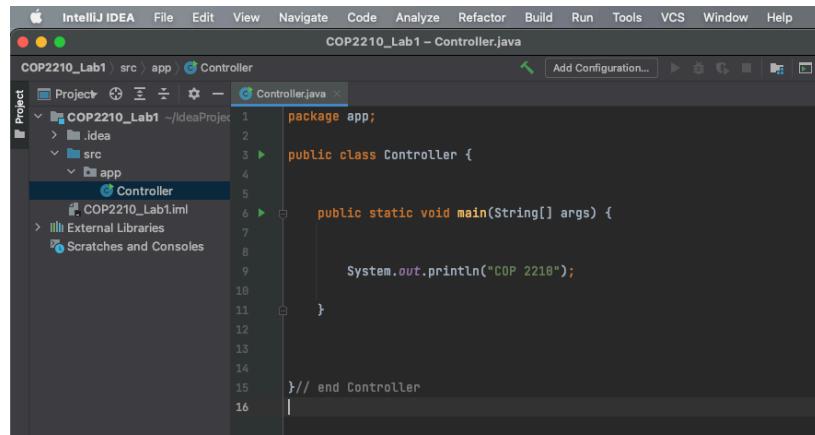
IMPORTANT: pay attention to the capitalization

IMPORTANT: app is a package and Controller is the java file named Controller.java

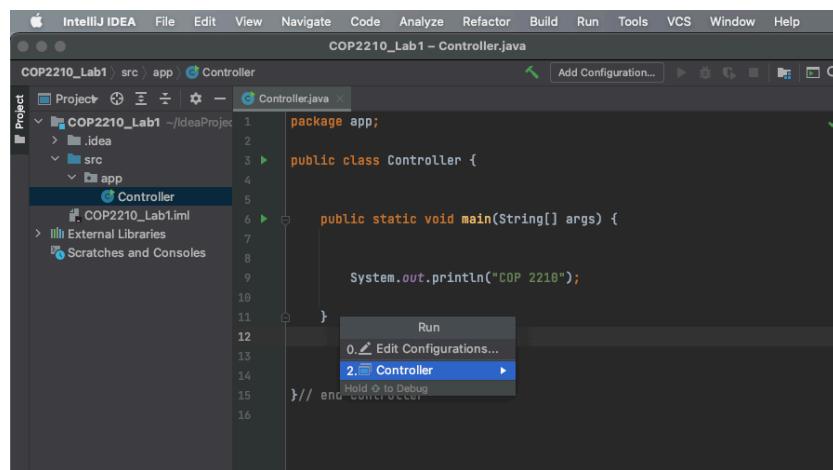
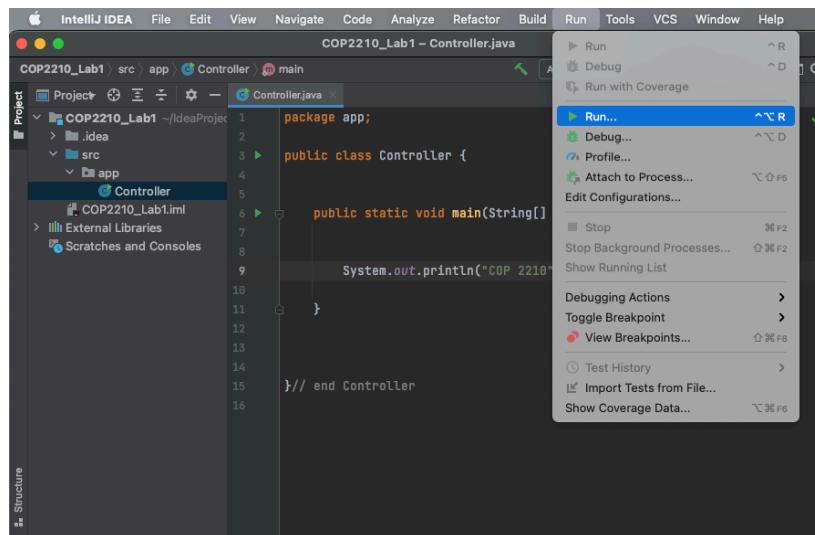


## 7. Write the following code and run your code

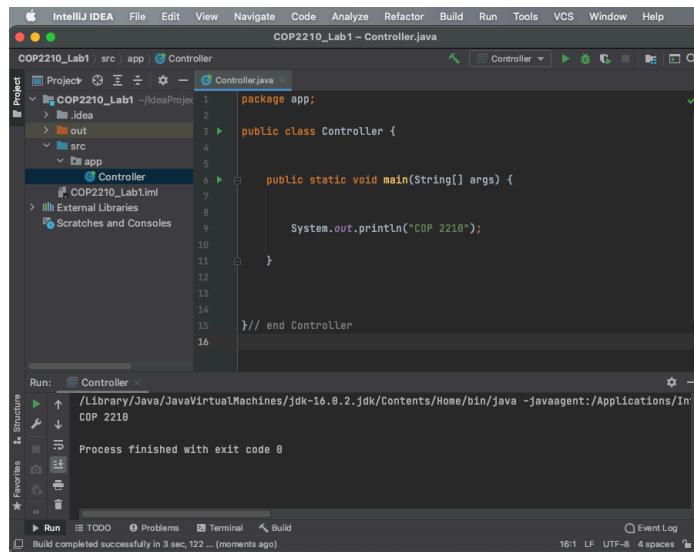
IMPORTANT: Pay attention to the location of the code



```
package app;
public class Controller {
    public static void main(String[] args) {
        System.out.println("COP 2210");
    }
}
```



Output of your code. Look at the console.  
If you have an issue please ask a LA or me to help you.



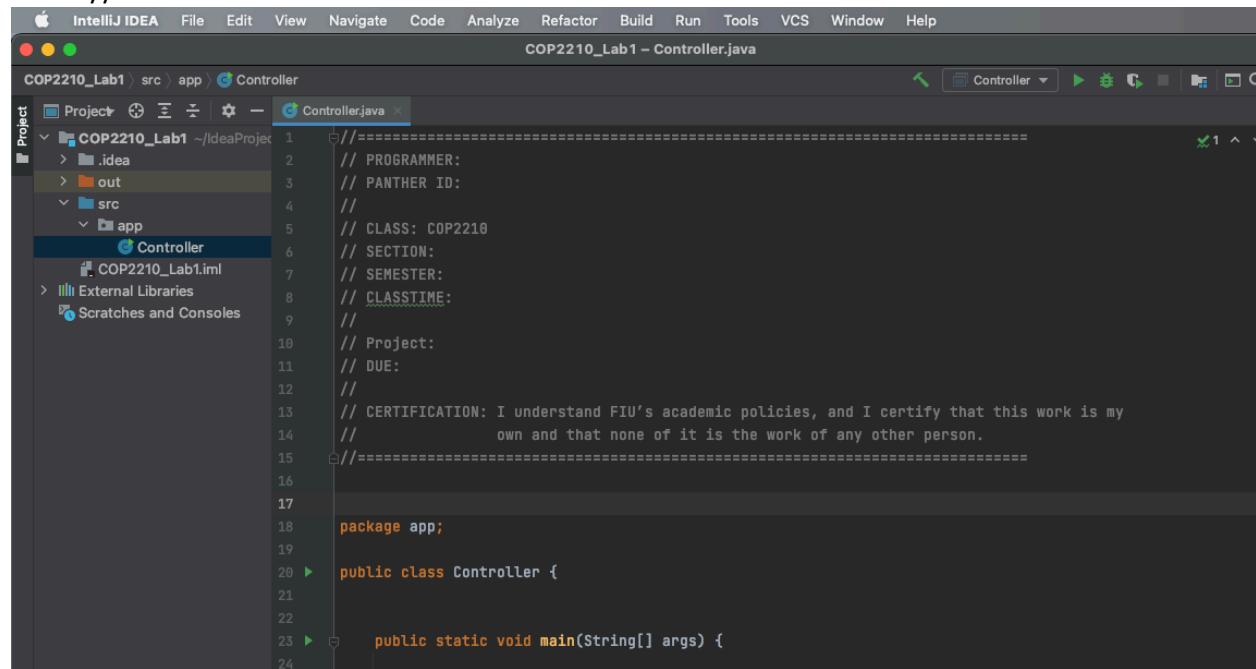
The screenshot shows the IntelliJ IDEA interface with the project 'COP2210\_Lab1' open. The 'Controller.java' file is selected in the editor. The code contains a simple main method that prints 'COP 2210'. The 'Run' tab shows the command used to run the application and the resulting output: 'Process finished with exit code 0'. The bottom status bar indicates the build completed successfully in 3 seconds.

```
package app;
public class Controller {
    public static void main(String[] args) {
        System.out.println("COP 2210");
    }
}
```

8. Add the following header to your code and fill it out with your information.

IMPORTANT: pay attention to the location

Note: // makes a comment



The screenshot shows the IntelliJ IDEA interface with the project 'COP2210\_Lab1' open. The 'Controller.java' file is selected in the editor. A custom header has been added to the top of the file, consisting of several double slashes (//) followed by descriptive text. The code itself remains the same as in the previous screenshot.

```
=====
// PROGRAMMER:
// PANTHER ID:
//
// CLASS: COP2210
// SECTION:
// SEMESTER:
// CLASSTIME:
//
// Project:
// DUE:
//
// CERTIFICATION: I understand FIU's academic policies, and I certify that this work is my
// own and that none of it is the work of any other person.
=====

package app;
public class Controller {
```

9. Write the following code and run it. Look at the console output and try to understand the code.

The screenshot shows the IntelliJ IDEA interface with the following details:

- Project View:** Shows the project structure with a file named "Controller.java" selected under the "app" package.
- Code Editor:** Displays the Java code for the Controller class:

```
1 package app;
2
3 public class Controller {
4
5     public static void main(String[] args) {
6
7         System.out.println();
8         System.out.println("-----");
9         System.out.println("First Program Header 1");
10        System.out.println("-----");
11        System.out.println("School: \t\t\t FIU");
12        System.out.println("Major: \t\t\t ECON");
13        System.out.print("Number of Students: \t 1000 \n");
14    }
15
16 }
17
18 // end Controller
```

- Run Tab:** Shows the run configuration and the output window.
- Output Window:** Displays the console output from the run:

```
-----  
First Program Header 1  
-----  
School: FIU  
Major: ECON  
Number of Students: 1000  
Process finished with exit code 0
```

10. Write the following code and run it. Look at the console output and try to understand the code.

### IMPORTANT IDEA: print variables

The screenshot shows the IntelliJ IDEA interface with two windows. The top window displays the 'Run' menu with 'Run 'Controller'' highlighted. The bottom window shows the code editor for Controller.java and its run output in the terminal.

**Controller.java:**

```
public static void main(String[] args) {
    System.out.println();
    System.out.println("-----");
    System.out.println("First Program Header 1");
    System.out.println("-----");
    System.out.println("School: \t\t\tFIU");
    System.out.println("Major: \t\t\tECON");
    System.out.println("Number of Students: \t\t1000");
    System.out.print("Number of Students: \t\t1000 \n");

    //-----
    String school = "FIU";
    String major = "ECON";
    int numberOfStudents = 1000;

    System.out.println("\n");
    System.out.println("-----");
    System.out.println("First Program Header 2");
    System.out.println("-----");
    System.out.println("School: \t\t\t" + school);
    System.out.println("Major: \t\t\t" + major);
    System.out.print("Number of Students: \t\t" + numberOfStudents + "\n");

    System.out.println();
    System.out.println("Information-> " + school + ":" + major + ":" + numberOfStudents);
}
```

**Run Output:**

```
First Program Header 1
-----
School: FIU
Major: ECON
Number of Students: 1000

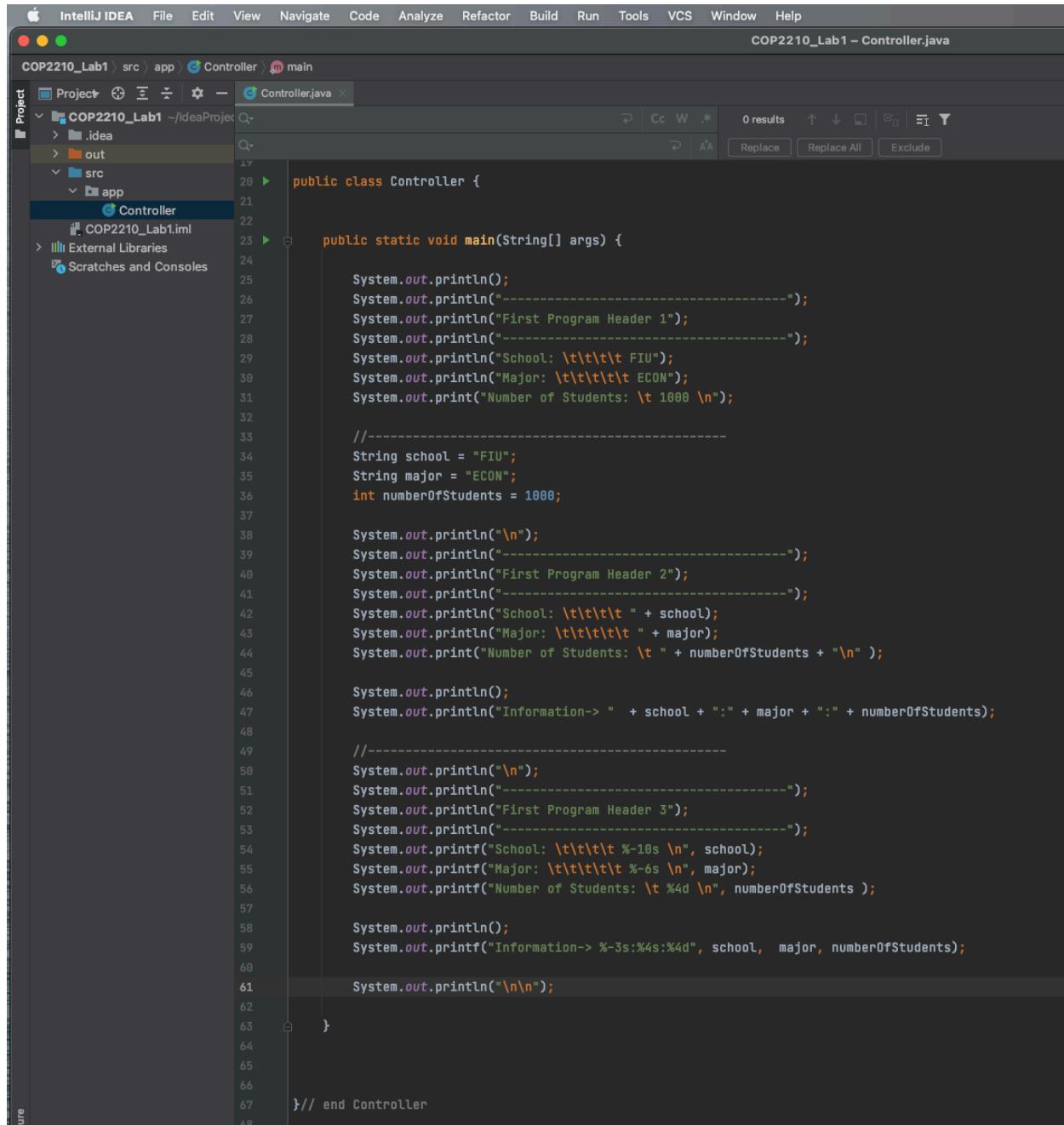
-----
First Program Header 2
-----
School: FIU
Major: ECON
Number of Students: 1000

Information-> FIU:ECON:1000

Process finished with exit code 0
```

11. Write the following code and run it. Look at the console output and try to understand the code.

### IMPORTANT IDEA: print variables with printf



The screenshot shows the IntelliJ IDEA interface with the following details:

- Project Bar:** Shows the project name "COP2210\_Lab1" and the file "Controller.java".
- File Bar:** Includes options like File, Edit, View, Navigate, Code, Analyze, Refactor, Build, Run, Tools, VCS, Window, and Help.
- Search Bar:** Displays "COP2210\_Lab1 - Controller.java" and search filters (Cc, W, .\*) with results count 0.
- Tool Bar:** Includes icons for Find, Replace, Replace All, and Exclude.
- Project View:** Shows the project structure with "COP2210\_Lab1" expanded, displaying ".idea", "out", "src", and "app" folders, with "Controller.java" selected.
- Code Editor:** Displays the Java code for the Controller class. The code uses System.out.println() and System.out.printf() methods to print program headers and student information.

```
public class Controller {  
    public static void main(String[] args) {  
  
        System.out.println();  
        System.out.println("-----");  
        System.out.println("First Program Header 1");  
        System.out.println("-----");  
        System.out.println("School: \t\t\t\t FIU");  
        System.out.println("Major: \t\t\t\t ECON");  
        System.out.print("Number of Students: \t 1000 \n");  
  
        //-----  
        String school = "FIU";  
        String major = "ECON";  
        int numberOfStudents = 1000;  
  
        System.out.println("\n");  
        System.out.println("-----");  
        System.out.println("First Program Header 2");  
        System.out.println("-----");  
        System.out.println("School: \t\t\t\t " + school);  
        System.out.println("Major: \t\t\t\t " + major);  
        System.out.print("Number of Students: \t " + numberOfStudents + "\n");  
  
        System.out.println();  
        System.out.println("Information-> " + school + ":" + major + ":" + numberOfStudents);  
  
        //-----  
        System.out.println("\n");  
        System.out.println("-----");  
        System.out.println("First Program Header 3");  
        System.out.println("-----");  
        System.out.printf("School: \t\t\t\t %-10s \n", school);  
        System.out.printf("Major: \t\t\t\t %-6s \n", major);  
        System.out.printf("Number of Students: \t %d \n", numberOfStudents);  
  
        System.out.println();  
        System.out.printf("Information-> %-3s:%s:%4d", school, major, numberOfStudents);  
  
        System.out.println("\n\n");  
    }  
}  
}// end Controller
```

The screenshot shows the IntelliJ IDEA interface with the project 'COP2210\_Lab1' open. The code editor displays 'Controller.java' with the following content:

```
package app;
public class Controller {
    public static void main(String[] args) {
        System.out.println();
        System.out.println("-----");
        System.out.println("First Program Header 1");
        System.out.println("-----");
        System.out.println("School: \t\t\t\t FIU");
        System.out.println("Major: \t\t\t\t ECON");
        System.out.print("Number of Students: \t 1000 \n");
        //-----
        String school = "FIU";
        String major = "ECON";
    }
}
```

The 'Run' tool window shows the output of the program:

```
First Program Header 1
-----
School: FIU
Major: ECON
Number of Students: 1000

-----
First Program Header 2
-----
School: FIU
Major: ECON
Number of Students: 1000

Information-> FIU:ECON:1000

-----
First Program Header 3
-----
School: FIU
Major: ECON
Number of Students: 1000

Information-> FIU:ECON:1000

Process finished with exit code 0
```

12. Study the code and the output. Do you see something ... and do you understand it?

YOUR DONE ☺