

# How to Use Code Runner

## Introduction

Before you can successfully write and understand complex programs, you need to master basic **Java** syntax and develop the skills necessary to solve simple problem.

Learning to program, just like any skill, requires practice. An effective way to practise programming is to write lots of short fragments of code (each only several lines long) so that you become comfortable with the syntax of the language. At the same time, you learn the basic principles of programming and build your confidence so that you can quickly fix errors and feel ready to tackle more complex tasks.

The CodeRunner tool is designed to help you practise by presenting you with a set of short exercises. Students can work with on-line exercises with the Moodle learning system.

Submissions are graded by running a series of test cases of the code in a sandbox, comparing the output with the expected output. Also, CodeRunner is intended to be run in an adaptive mode, so that students know immediately if their code is passing the tests.

## Getting Started

Begin by logging in to CodeRunner.

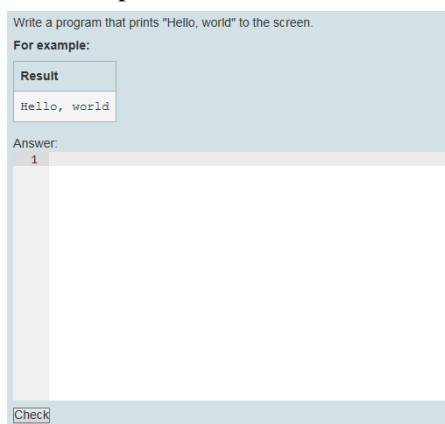
<https://www.coderunner.auckland.ac.nz/moodle/>

Log in with your usual University of Auckland UPI and password.

Simply follow the instructions below:

1. Click “**2015**” from the **Course Categories** on the left of the screen.
2. Click your course (**COMPSCL230.C.S2.2015**) from the **Course Categories** block on the left of the screen.
3. Just click the link of the activity on the left that you want to work on.
4. Click the “Attempt quiz now” button to start the quiz. Follow the prompts to select and answer exercises.

For example:



The screenshot shows a web interface for a coding exercise. At the top, it says "Write a program that prints 'Hello, world' to the screen." Below this, there's a section labeled "For example:" which contains a "Result" box showing "Hello, world". Underneath, there's an "Answer:" section with a text area containing the number "1". At the bottom left of the interface, there is a "Check" button.

Enter the required statement in the answer box above and click the **Check** button at the left-bottom of the screen. Note: we recommend that you develop your code in a separate development environment (e.g., Notepad++) and test it there until you feel you have gotten all the bugs out. When you reach that stage you can cut and paste your code into coderunner and click the **Check** button to run your code and compare the output with the expected output.

5. Exercises will be automatically graded. Your grade for the exercise will be based on whether your output matches the desired output for the various test data sets we use to check your code. You will see immediate feedback and your score once you run your code.

## Java program or Java Method

Please check carefully if the question asks you to complete the entire program or complete a method.

**Example 1:** Complete the “Sample1.java” program that prints "Hello, world" to the screen.

```
public class SamApp1 {  
    public static void main(String[] args) {  
        Sample1 p = new Sample1();  
        p.start();  
    }  
}  
class Sample1 {  
    public void start() {  
        System.out.println("Hello, world");  
    }  
}
```

You may assume that the class **SamApp1** has been done for you in the coderunner system. You just need to copy the **entire Sample1** class into the answer box. (Note that: do not declare the **Sample1** class as **public**.)

**Example 2:** Complete the “printMessage()” method that prints "Hello, world" to the screen.

```
public class SamApp2 {  
    public static void main(String[] args) {  
        Sample2 p = new Sample2();  
        p.printMessage();  
    }  
}  
class Sample2 {  
    public void printMessage() {  
        System.out.println("Hello, world");  
    }  
}
```

You may assume that the class **SamApp2** has been done for you in the coderunner system. You just need to copy the **printMessage** method into the answer box.

## Feedback

If your feedback is “Incorrect” you can replace the original code and click the **Check** button again.

Expected	Got	
Hello, world	Hello	✗

Your code must pass all tests to earn any marks. Try again.

Incorrect

Marks for this submission: 0.00/1.00.

You can keep on working until the feedback is “Correct”.

Expected	Got	
Hello, world	Hello, world	✓
Passed all tests! ✓		
Correct		
Marks for this submission: 1.00/1.00.		

1. You may have as many attempts as you need – do not worry about making mistakes. Every time you make a mistake, it is an opportunity to learn. We will take your highest score.
2. When you have attempted all questions, click the “**Finish attempt**” from the **Quiz Navigation** block on the right of the screen.

QUIZ NAVIGATION
<div>1</div> <div>Finish attempt ...</div>

3. Click the “**Submit all and finish**” button to submit your work.