

Introduction to Java using Codingbat

CSC 2310

In this lab you will begin learning the Java programming language by writing code using the [codingbat](https://codingbat.com/java) website.

The screenshot shows the CodingBat Java website in a web browser. The browser's address bar displays <https://codingbat.com/java>. The website has a navigation bar with links: [about](#), [help](#), [code help+videos](#), [done](#), and [prefs](#). Below the navigation bar, there is a login section with input fields for 'id/email' and 'password', a 'log in' button, and links for 'forgot password' and 'create account'. The main content area is divided into two tabs: 'Java' (selected) and 'Python'. Under the 'Java' tab, there are several exercise cards arranged in a grid. Each card has a title, a star rating, and a description. The exercises include: 'Warmup-1' (Simple warmup problems to get started), 'Warmup-2' (Medium warmup string/array loops), 'String-1' (Basic string problems -- no loops), 'Array-1' (Basic array problems -- no loops), 'Logic-1' (Basic boolean logic puzzles -- if else && || !), 'Logic-2' (Medium boolean logic puzzles -- if else && || !), 'Map-1' (Basic Map get()/put(), no loops), 'Map-2' (Maps with bulk data and loops), and 'Functional-1' (Functional mapping operations on lists with lambdas). A 'New...' section is also visible on the right side of the exercise grid.

Pre-work

This laboratory makes use of the <https://codingbat.com/java> website, which contains several exercises for practicing programming using Java. The site uses a *Test-Driven Development* (TDD) approach for programming whereby tests are written first and the goal of the programmer is to make their code pass the test.

Before starting the lab, go to the above link and create an account using your TNTech account by selecting

- Create an account using your TNTech account

This is a close-up screenshot of the login/register section of the CodingBat website. It shows the 'id/email' and 'password' input fields, the 'log in' button, and the 'forgot password' and 'create account' links. The 'create account' link is highlighted with a red circle, indicating the next step in the pre-work instructions.

- Next, add your lead TA's e-mail address to the **Teacher Share** field, and your Section number to the **Memo** field using the **prefs** menu.

SECTION	DATE / TIME	LEAD TA
Section 101	T 430pm - 545pm	Poudel, Sushil < spoudel42@tntech.edu >
Section 102	R 430pm - 545pm	Poudel, Sushil < spoudel42@tntech.edu >
Section 103	T 300pm - 415pm	Karagoz, Emre < ekaragoz42@tntech.edu >
Section 104	R 300pm - 415pm	Karagoz, Emre < ekaragoz42@tntech.edu >

CodingBat code practice

> [CodingBat Home](#)

Account Settings

Change password

Password must contain at least 6 characters

New Password show/hide

Teacher Share

Enter the email address of the teacher account. This will make your done page and solution code visible to that account.

Share To

Memo

Generally this is left blank. A teacher may ask you to fill this in.

Memo

Delete Account

Permanently delete account - cannot be undone

[privacy statement](#)

Laboratory Description

After creating and configuring your account (and during the assigned lab period), attempt and complete the following exercises:

- String-1/AtFirst: <https://codingbat.com/prob/p139076>
- Array-1/Double23: <https://codingbat.com/prob/p145365>
- Logic-1/FizzString2: <https://codingbat.com/prob/p115243>

The approach you should use to complete these exercises is the following:

1. Add a return statement to the code block, returning a constant of the given type (e.g., `return true;` for a boolean, `return 0;` for an `int`, etc.)
2. Click the "Go" button to observe the tests fail
3. Write the code to make the tests pass

After the laboratory session, and before the beginning of your next laboratory, you must complete the following exercises:

- String-1/MakeTags: <https://codingbat.com/prob/p147483>
- Array-1/Reverse3: <https://codingbat.com/prob/p112409>
- Logic-1/AnswerCell: <https://codingbat.com/prob/p110973>

In addition, you must complete at least one exercise from at least four of the following categories:

- Array-2
- Array-3
- Logic-2
- String-2
- String-3
- Recursion-1

Turn-in

Remember to add your lab instructor to the **Teacher Share** field in the *prefs* menu and your section number to the **Memo** field. **The TA's will create a snapshot of the lab completion report no later than 10 minutes after the assigned laboratory section ends.** You must complete the additional exercises before the end of the next laboratory.

This laboratory is worth 20 points.