

1 Running Java Files

Lets say we are given a file called Bus.java. What terminal command do we use to compile this file? What terminal command do we use to run this file? What method in the Bus.java file is invoked when we run the file?

Solution:

Compile the file through: `javac Bus.java`

Run the file through: `java Bus`

The main method is invoked when running the file.

2 Git Basics

Suppose Shubham and JC are working together on a 61B.java file for a class project on their respective computers. JC pulls the skeleton files and edits line 61 to say "I love Data Structures" and pushes his changes to the remote repo. Shubham, working on the original skeleton file, changes line 61 to say "I love Algorithms". What problem arises if Shubham tries to pull from the remote repo? How should he resolve it?

Solution:

Shubham would get a merge conflict since both him and JC edited the same line of code. Git will not be able to recognize which line of code is meant to be kept, so Shubham would have to manually resolve the conflict, commit the final changes, and push again to the remote repository.

3 Number Sum

Given an integer, write Java code to return the sum of all the digits in that number. For example, numberSum(12345) would return $1 + 2 + 3 + 4 + 5 = 15$

Solution:

```
public static int numberSum (int x) {  
    return numberSum(x / 10) + (x % 10)  
}
```