

Prerequisite installation instructions

Source Code

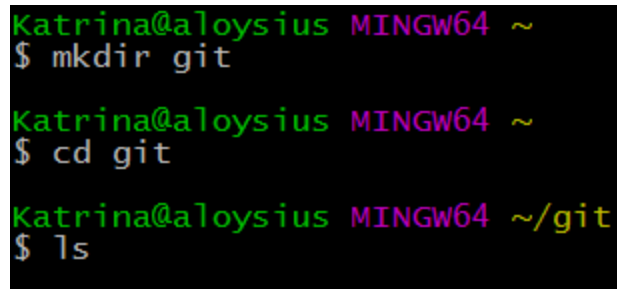
Download and install git

<https://git-scm.com/downloads>

Open `git bash` on your local machine.

Create a directory to store the code using `mkdir`

Navigate to that directory using `cd`

A terminal window with a black background and green text. The prompt is 'Katrina@alloysius MINGW64 ~'. The first command is '\$ mkdir git'. The second command is '\$ cd git'. The third command is '\$ ls', and the prompt has changed to 'Katrina@alloysius MINGW64 ~/git'.

```
Katrina@alloysius MINGW64 ~  
$ mkdir git  
  
Katrina@alloysius MINGW64 ~  
$ cd git  
  
Katrina@alloysius MINGW64 ~/git  
$ ls
```

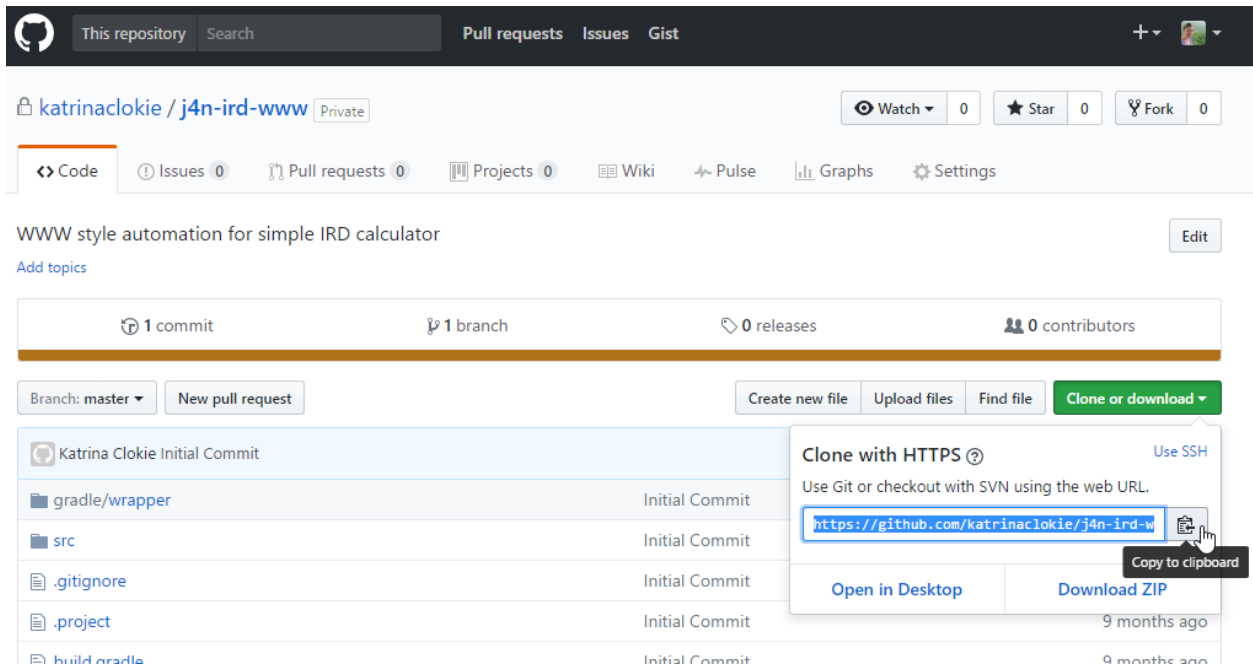
Login to [GitHub](#), or create an account if you do not already have one.

In your browser, open the links to the three repositories:

1. <https://github.com/katrinaclokie/j4n-ird-www>
2. <https://github.com/katrinaclokie/j4n-ird-pirate>
3. <https://github.com/katrinaclokie/j4n-ird-aas>

In the GitHub website there's a green button to "Clone or download" the repository.

Click this button, copy the URL for the repository to your clipboard.



Paste the URL into `git bash` after the `git clone` command to get a local copy of the code. You will be prompted for your github credentials, enter these as requested. Repeat the process for all repositories.

```
Katrina@alloysius MINGW64 ~/git
$ git clone https://github.com/katrinaclokie/j4n-ird-pirate.git
Cloning into 'j4n-ird-pirate'...
remote: Counting objects: 53, done.
remote: Compressing objects: 100% (32/32), done.
remote: Total 53 (delta 5), reused 53 (delta 5), pack-reused 0
Unpacking objects: 100% (53/53), done.

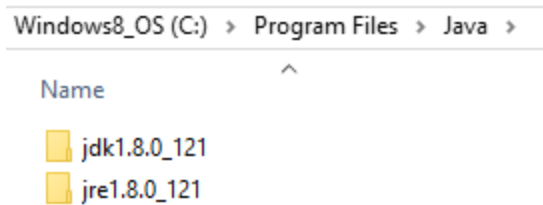
Katrina@alloysius MINGW64 ~/git
$ git clone https://github.com/katrinaclokie/j4n-ird-aas.git
Cloning into 'j4n-ird-aas'...
remote: Counting objects: 51, done.
remote: Compressing objects: 100% (32/32), done.
remote: Total 51 (delta 8), reused 51 (delta 8), pack-reused 0
Unpacking objects: 100% (51/51), done.
```

Java

See whether you have Java installed by typing ``java -version`` in the `git bash` prompt. If you don't have Java then you will see 'command not found':

```
Katrina@alloysius MINGW64 ~/git
$ java -version
bash: java: command not found
```

If you only have a 'Runtime Environment' you will still need to install a JDK
Double check by navigating to where your Java is installed and seeing what is in the directory:



If you're running an older version of a Java JDK, that's fine.

If you don't have a JDK, you will need to download and install one:

<http://www.oracle.com/technetwork/java/javase/downloads/jdk8-downloads-2133151.html>

After installation, **restart git bash to pick up this change!**

Firefox

Download and install Firefox 45

Note that these projects use Selenium 2, which only works on older versions of Firefox

<https://ftp.mozilla.org/pub/firefox/releases/45.0/>

To keep Firefox on the old version, switch off updates using:

Menu -> Options -> Advanced -> Updates -> Never check for updates

Prepare code

Before importing your code into an IDE, run the './gradlew eclipse' command in each project directory to download dependencies:

```
Katrina@alloysius MINGW64 ~/git/j4n-ird-pirate (master)
$ ./gradlew eclipse
eclipseclasspath
```

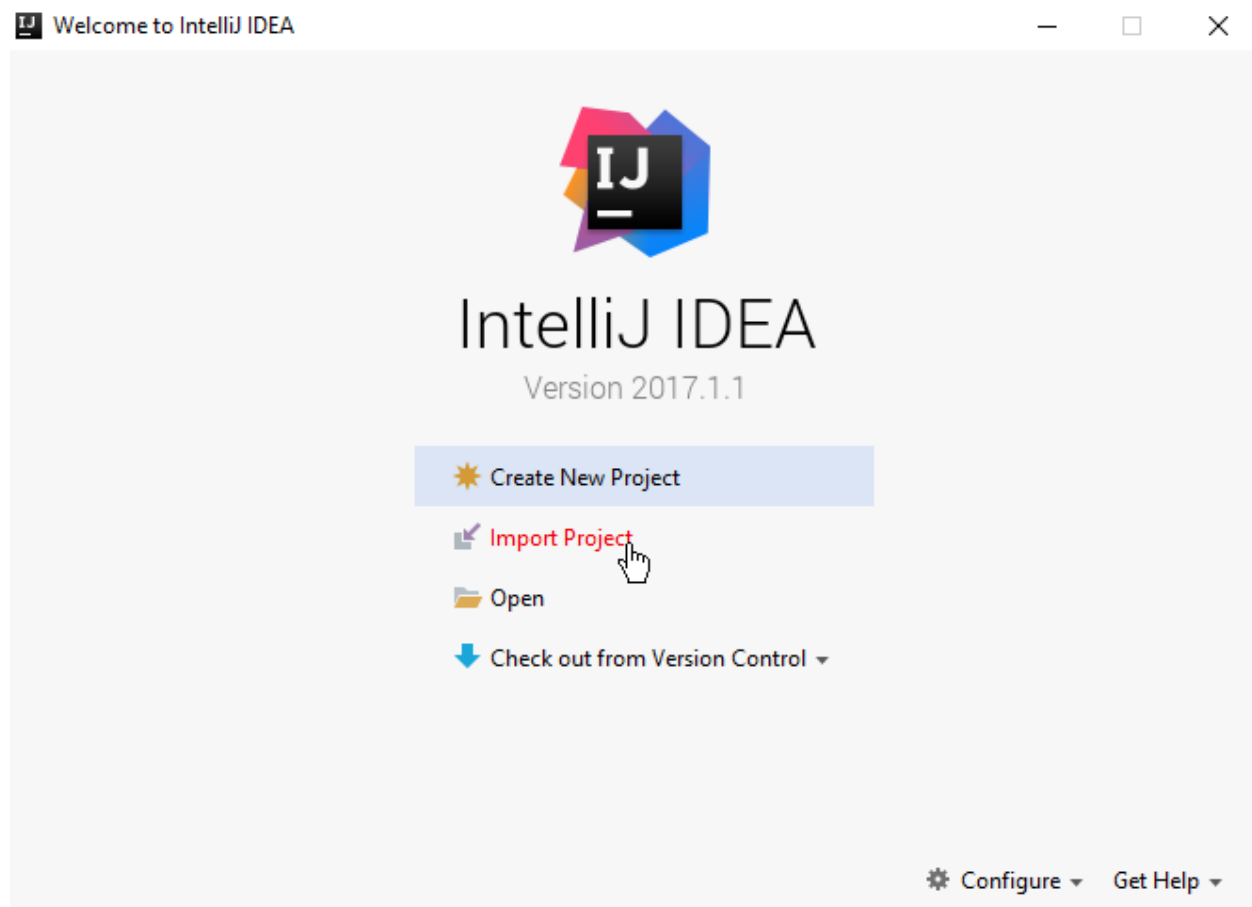
IDE

If you don't already have an integrated development environment (IDE)

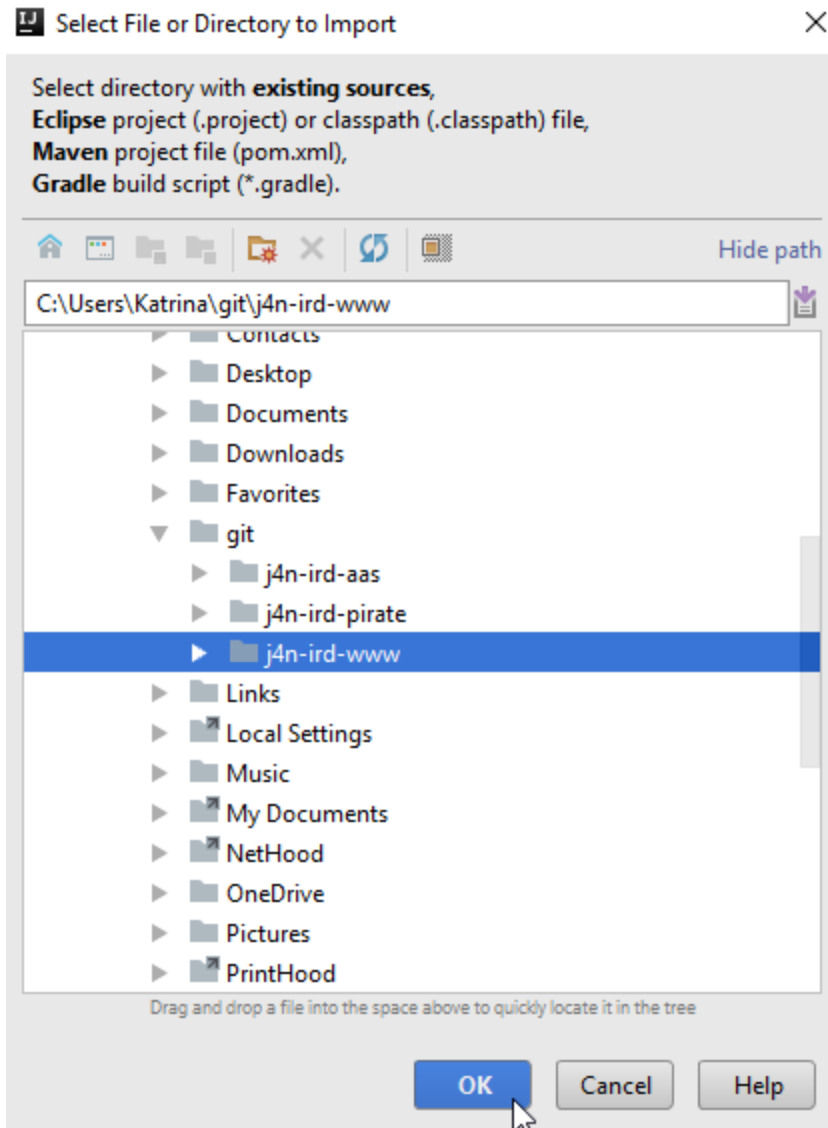
Download and install the *community edition* of IntelliJ IDEA

<https://www.jetbrains.com/idea/download/>

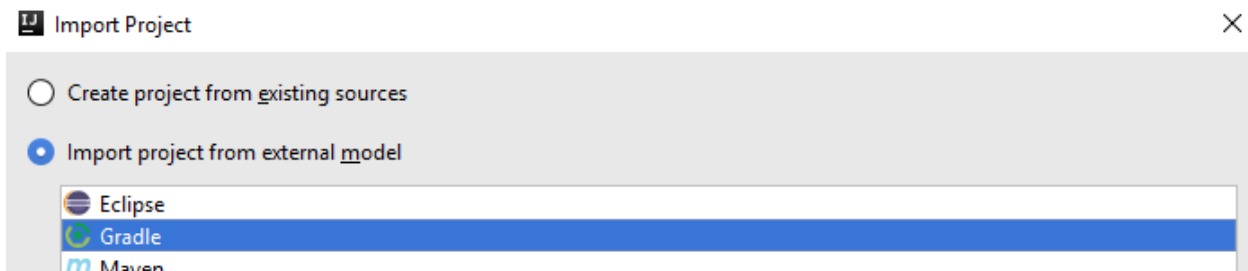
Open IntelliJ and select to 'Import Project'



Find the project to import:



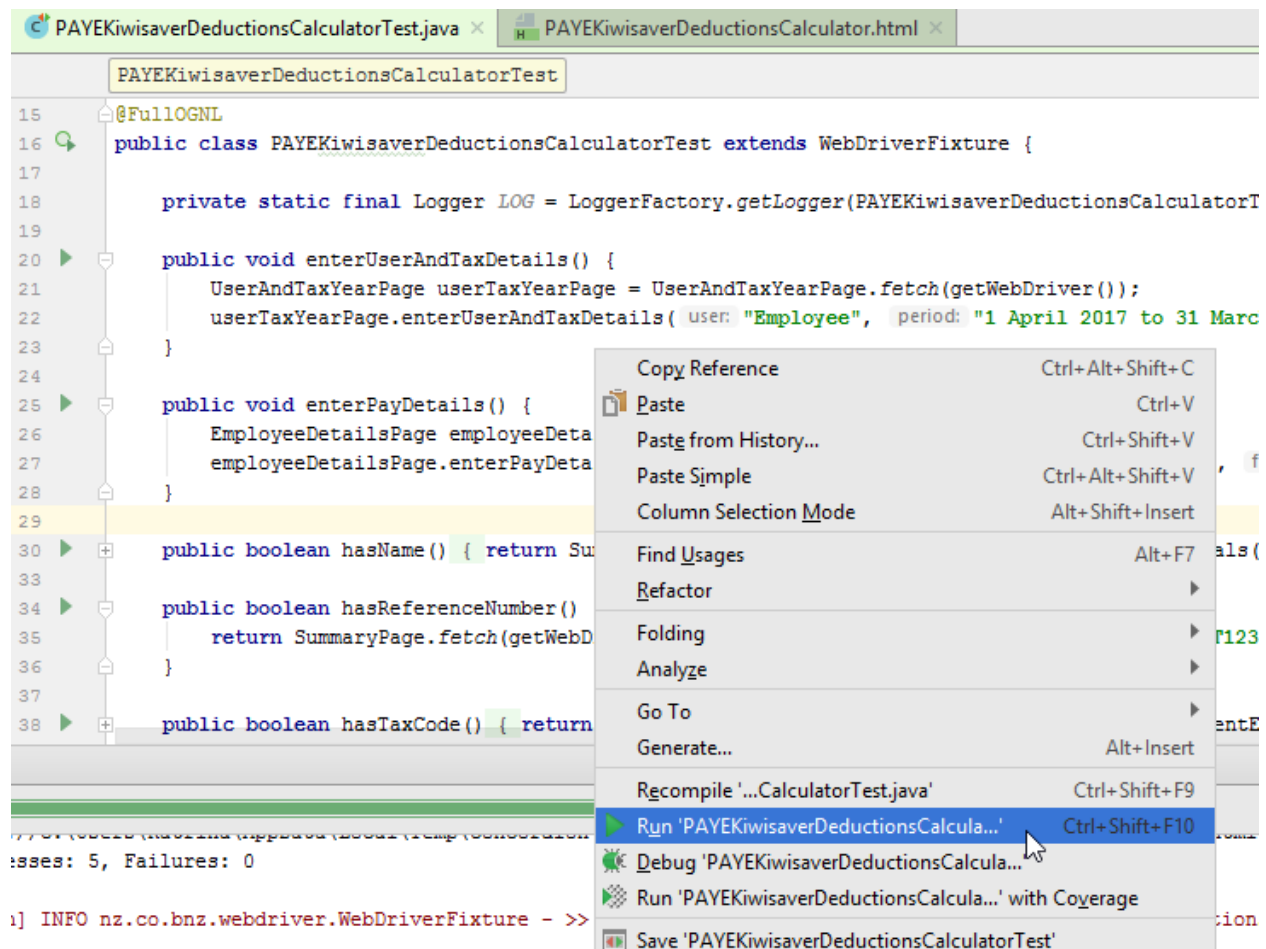
Import the project using 'Gradle':



And then we want to get the test running! In each repository the test is located here:

```
src\test\nz\govt\ird\test\PAYEKiwisaverDeductionsCalculatorTest.java
```

You should be able to right click in the file and select the option to 'Run' the test:



What should happen is that the test will launch Firefox, complete a series of actions and assertions against the IRD PAYE Calculator, then finish successfully.

To get the tests working, you will probably need to configure IntelliJ to know about your Java (Gradle JVM). You might also need to mess about with build paths, and there could be any number of other tweaks required for your environment. **Don't worry too much if the test doesn't run.** If you've got this far, then you've got all the pieces in place. We can work out the rest together on tutorial day.

Late note: If you'd like to see a variant on the aas suite that uses updated concordion syntax, you can look at Nigel Charman's work here:

<https://github.com/nigelcharman/j4n-ird-aas/tree/master>