

Installing Java Environments

Go to bluej.org . Follow the instructions to download and install the BlueJ application for your computer. This typically takes about 20 minutes.)

BlueJ

A free Java Development Environment designed for beginners, used by millions worldwide. [Find out more...](#)

"One of my favourite IDEs out there is BlueJ"
— James Gosling, creator of Java.



Supported by **ORACLE®**

Download and Install

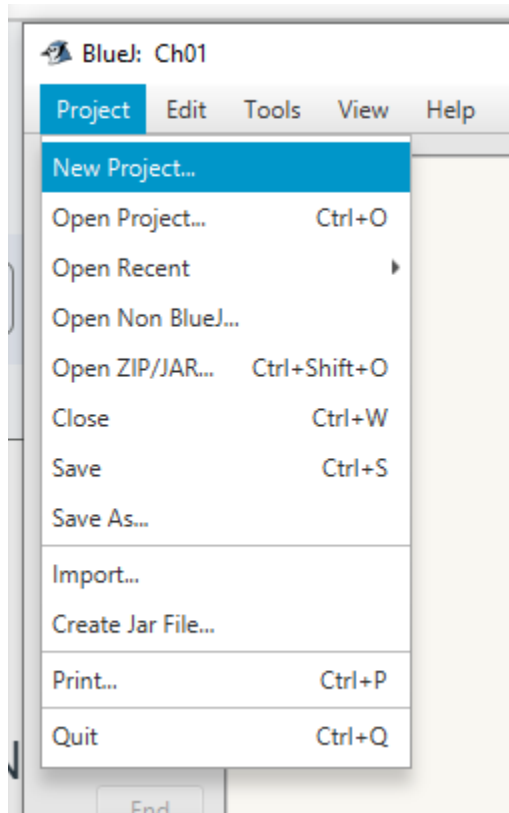
Version 5.2.0, released 20 June 2023 (Multiple bug fixes, including Mac file-opening, [see more](#))

Windows	Mac OS X	Ubuntu/Debian	Other
			
Requires 64-bit Windows, Windows 7 or later. Also available: Standalone zip suitable for USB drives.	Requires OS X 10.11 or later.	Requires 64-bit, Debian buster or Ubuntu 18.10 or later. There is also a flatpak available (maintained by someone else).	Please read the Installation instructions . (Works on most platforms with Java/JavaFX 17 support).

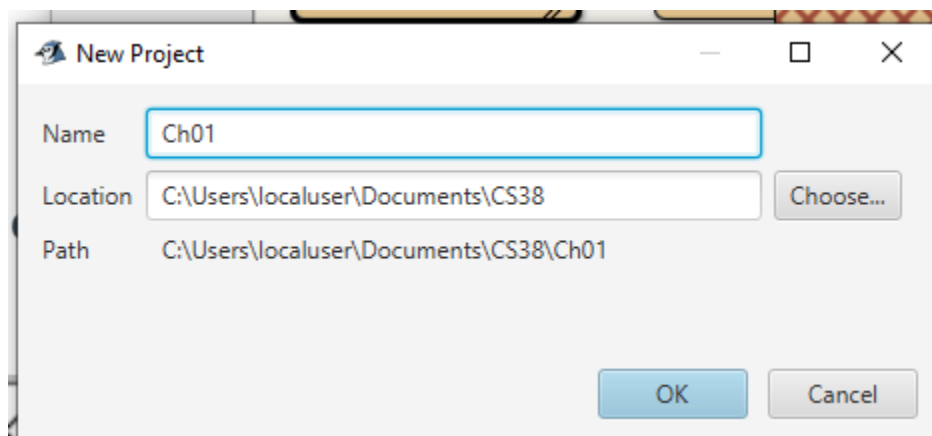
Start Window file Explorer and go to Documents. You may already have folders for your classes, e.g. bio100, math28, english4.

Create a folder for this class, e.g. CS38 or javaIVC.
Your directory may look something like

Start BlueJ, select "New Project":



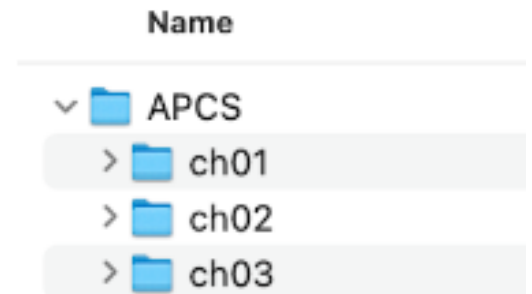
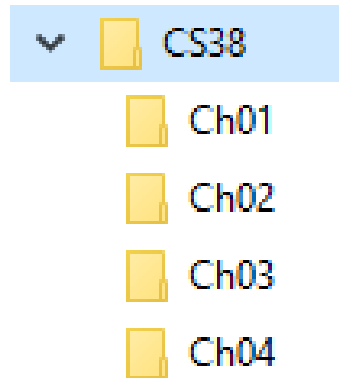
Create a New Project on **your local computer**, NOT in a cloud storage. For example:



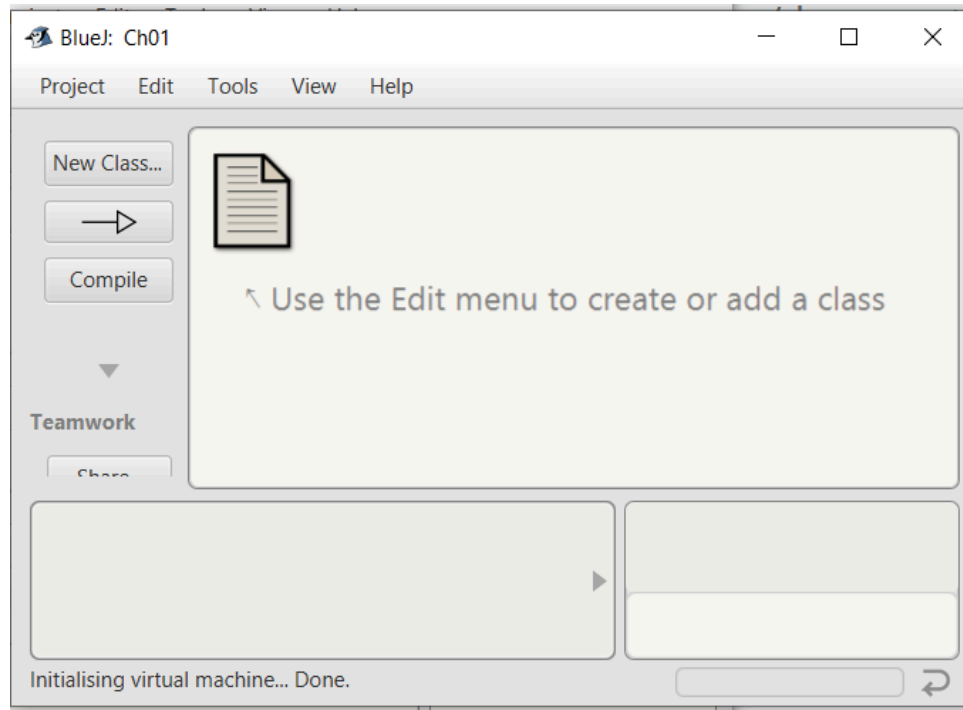
You can use project names like Ch01 or Ch01Intro or Chap01 ect.

Repeat and create New Projects for Ch02, Ch03, Ch04

Inside your folder you have subfolders. A Window PC with “CS38” is shown on the left, a Mac with a folder “APCS” is shown on the right:

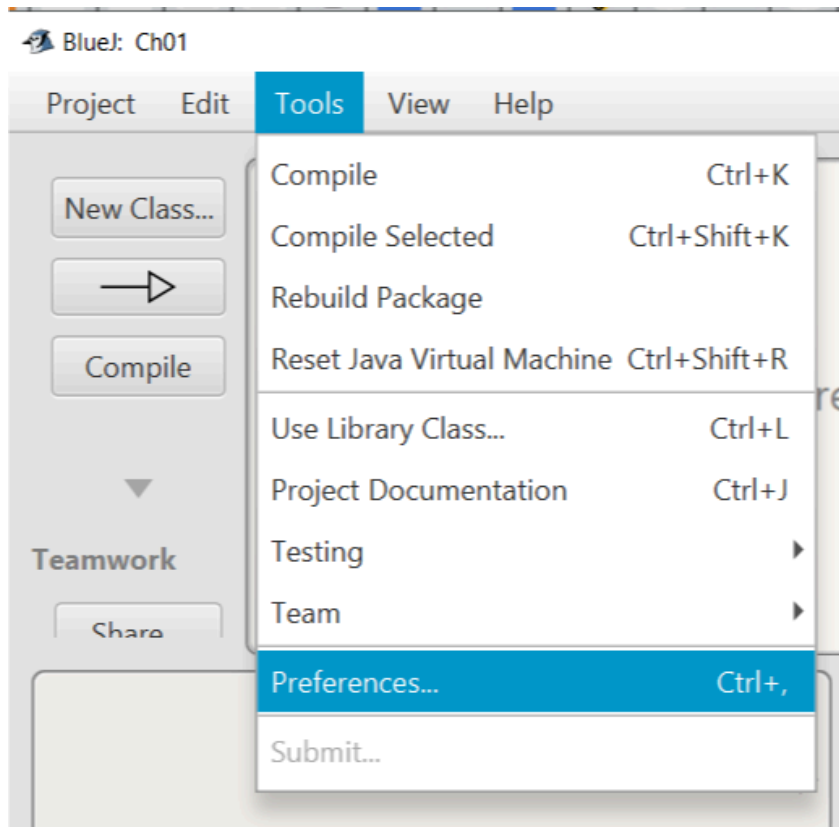


This is the BlueJ environment for a project name Ch01 and corresponds to a folder in Window Explorer / Mac Finder:

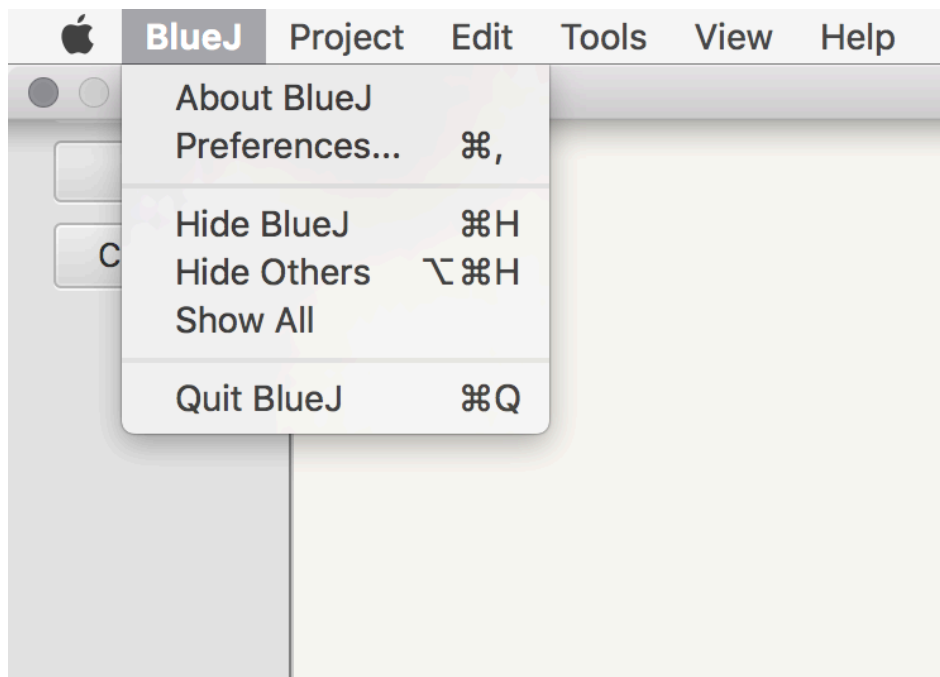


Configuring your environment:

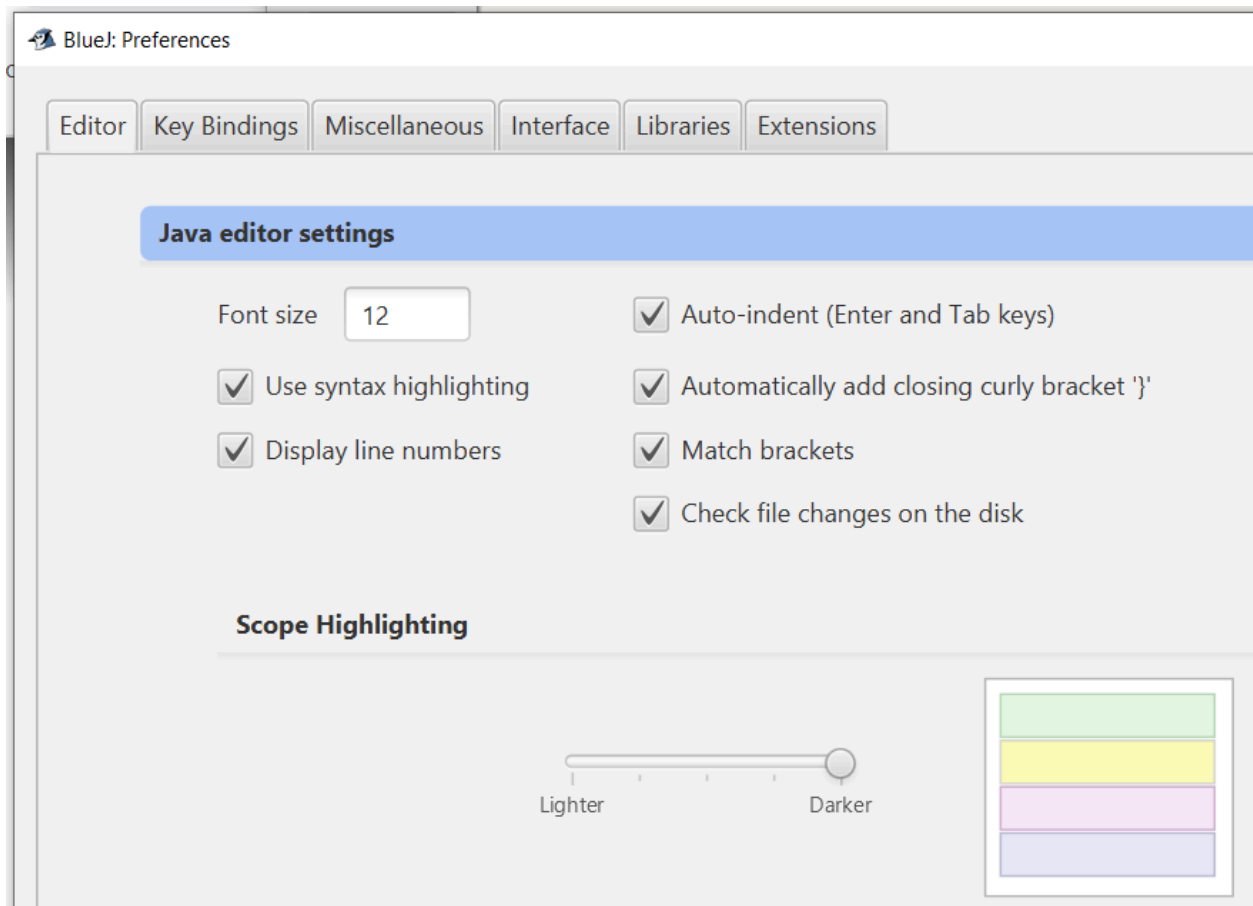
Window User: Select Tools, Preferences



Mac Users: Preferences is here. Also "command comma" gets you there.



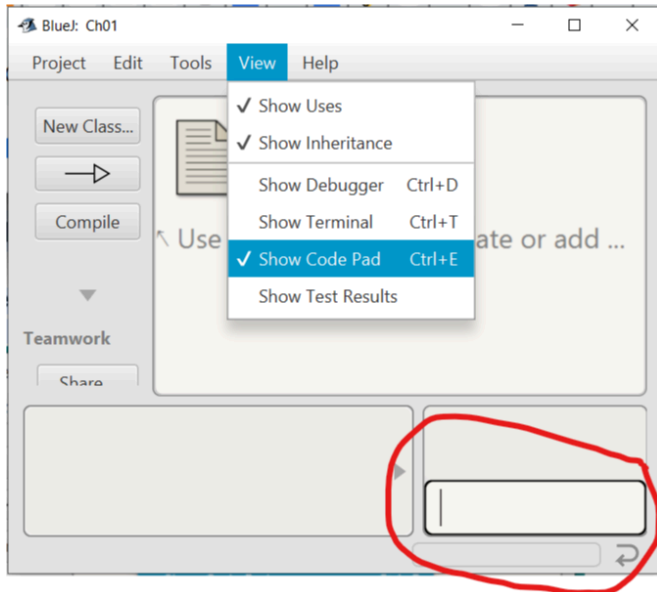
Check all the checkboxes and choose a comfortable Font size.
Click OK to return to the Project window.



Your First Java Commands - Using Code Pad

Please follow these steps to become familiar with the BlueJ environment. Let's write some sample Java statements.

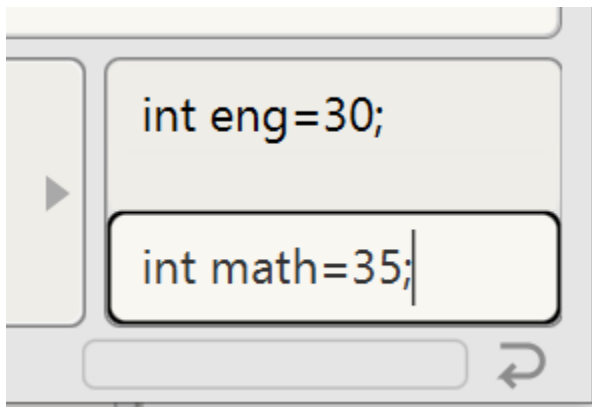
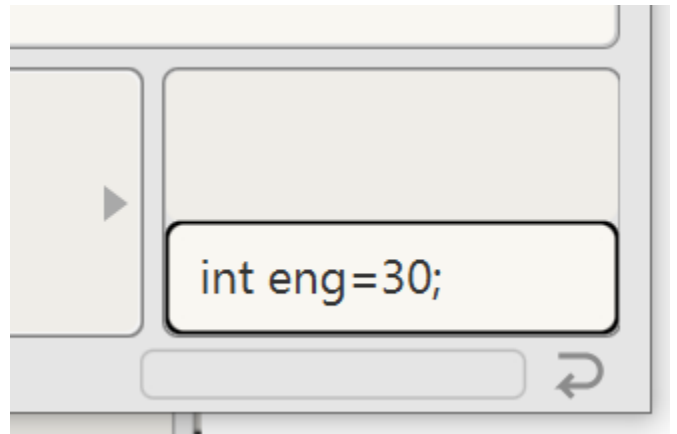
Select View, Show Code Pad (you see it circled) below:



CodePad is like a calculator. You can use it to test simple Java instructions.

Question: Three classroom are english with 30 students, math with 35 students, cs with 15 students. What is the total number of students?

Enter this Java statement for english. The "int" says eng is an integer. The semicolon ";" is used to end the statement.



Press enter to finish.
Now enter the number of math students.
The "int" says math is an integer.
The semicolon ";" is used to end the statement.

```
int eng=30;  
int math=35;  
int cs=15;
```

Here is how you tell Java the number of students enrolled in cs:

```
int eng=30;  
int math=35;  
int cs=15;  
int total=eng + math + cs;
```

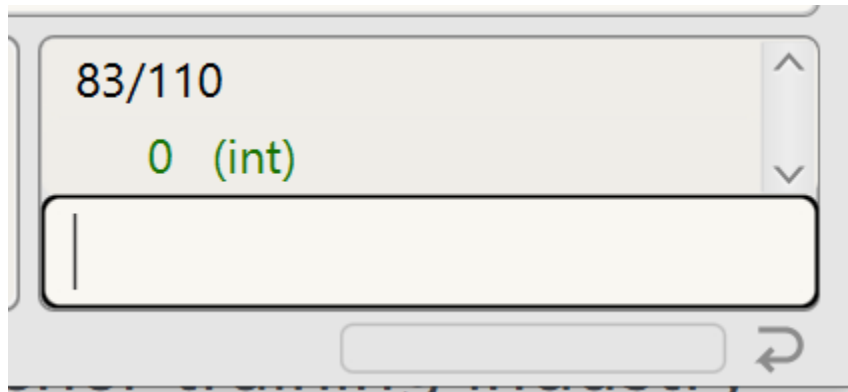
The total number of students is an integer and must end with a semicolon".

To see the value of total, just type total:

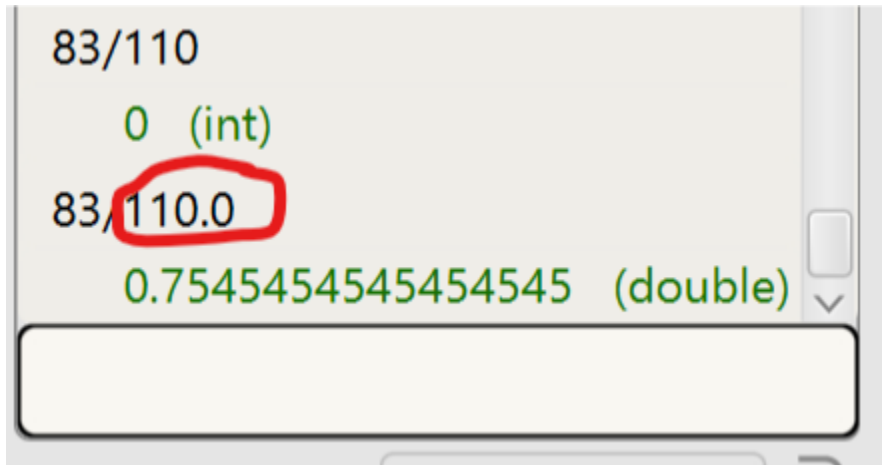
```
int eng=30;  
int math=35;  
int cs=15;  
int total=eng + math + cs;  
total  
80 (int)
```


Question: Your history quiz score is 83/110. What is the percentage score?

This is **WRONG**:



Add a decimal point to 83 or 110 or both and now it's correct:



So the CodePad calculator is not exactly like a smart phone calculator.

Problem: Amy (age 16), Ben (age 11), Dee (age 14) are friends. What is the average age?

```
int amy = 16;
int ben = 11;
int dee = 14;
double average = (amy+ben+dee)/3.0;
average
13.666666666666666 (double)
```

This says average is a double precision decimal. It is calculated by adding the three integers and dividing by 3.0

Now you try it.

Problem: Use CodePad to calculate the **average age of four or more persons in your family**. You can use parents, sisters, brothers, grandparents, uncles, aunts, cousins. It must be at least four persons. Like my examples, do several partial screen shot of your CodePad windows and paste it into a file like Google Doc to submit as your classwork.

Need help with partial screenshots?

Mac: Shift Command 4, then drag the crosshair to select

PC: Window Shift S, then drag the crosshair to select

OR ask google "how to take a partial screenshot on a mac" or a PC

Be prepared to submit your file on the first class meeting.

We will use BlueJ to draw images like this in class:

