



CS 105: Introduction to Computer Programming

Creating a JavaScript program using WebStorm

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Khan Window \neq Complete Program

- The Khan Academy videos let you edit the JavaScript code to create your own cool images, animations and more.
- However, the code in the Khan Academy window is NOT a full program: it only works inside Khan Academy's window.
- For your homework assignments, you need to turn in a complete webpage that does not use the Khan Academy window.
- Khan Academy uses JavaScript together with a powerful JavaScript library called "**Processing**".
- In order for your code to work, you will need to have a copy of p5.js **in the same directory** as your `.html` file.



WebStorm IDE

- WebStorm an Integrated Development Environment (IDE) for writing JavaScript and HTML programs.




```

52 var foulLineX = 600;
53 var foul = false;
54 textSize(100);
55
56 //=====
57 // This function is called 60 times per second.
58 //=====
59 draw = function ()
60 {
61   background(0, 150, 0);
62
63   //Draw Foul Line
64   stroke(150, 0, 0);
65   line(foulLineX,0,foulLineX,canvasHeight);

```

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Can I use a different IDE?

- Anyone who already knows Sublime, or another IDE should skip CS-105 and take CS-152. CS-105 is for noobs.
- If you are not already an expert in another IDE, then NO.
- The reason is simply that I will be teaching WebStorm. I will be showing how to create projects, use the debugger, set formatting, use shortcuts,
- These skills can all be done in different IDEs, but the procedures are different. I do not want the lab instructors nor myself to answer questions to some students that are totally pointless to other students.
- The course is a group learning experience so lets all use the same IDE.

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WebStorm Download, Install, Register

- Download WebStorm:

<https://www.jetbrains.com/webstorm/>

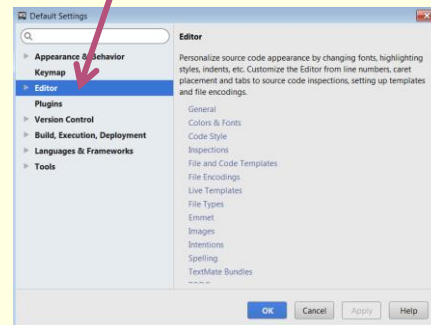
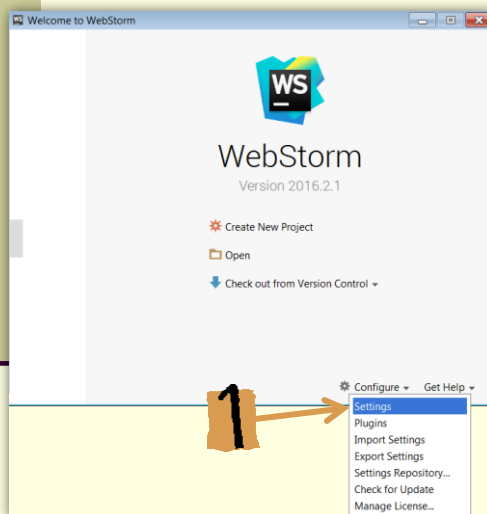
- The above is a Free 30-day trial. Students can get a free multi-year version by using an e-mail ending in .edu:

<https://www.jetbrains.com/shop/eform/students>

The screenshot shows a web browser window with the URL <https://www.jetbrains.com/shop/eform/students>. The page title is "JetBrains Products for Learning". There are three tabs: "University email address" (selected), "ISIC/ITIC membership", and "Official document". Under "Apply with:", there are radio buttons for "I'm a student" (selected) and "I'm a teacher". Below that are input fields for "First name" and "Last name". The "Email address:" field contains "@unm.edu". A blue button at the bottom says "APPLY FOR FREE PRODUCTS".

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Starting and Configuring WebStorm



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Set { } Format

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The screenshot shows the 'Default Settings' dialog for 'Editor > Code Style > JavaScript'. The 'Braces placement' section is highlighted with a box and a callout. The callout shows the following options:

Option	Value
In function declaration	Next line
Other	Next line

```
function buzz ()  
{  
  return 0;  
}
```

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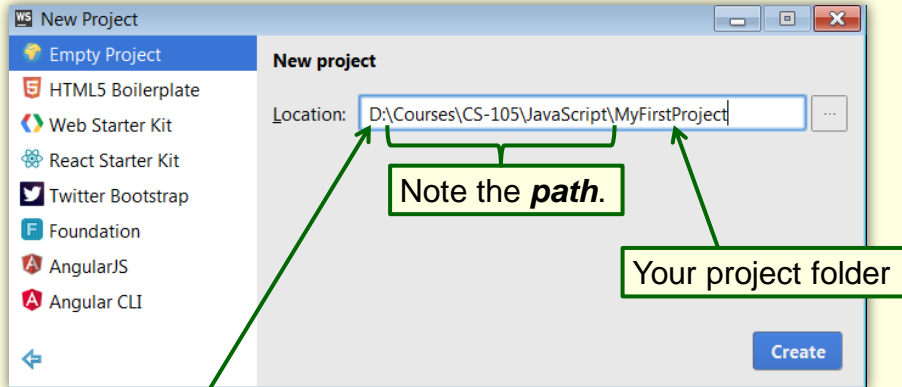
Creating a Webstorm Project

If WebStorm already has an open project, close it.

The screenshot shows the 'Welcome to WebStorm' dialog. The left sidebar lists several projects, with 'KhanAcademyToys' selected. The main area displays the WebStorm logo and version (2016.2.1). Below the logo, there are three main options: 'Create New Project', 'Open', and 'Check out from Version Control'. A green arrow points to the 'Create New Project' option.

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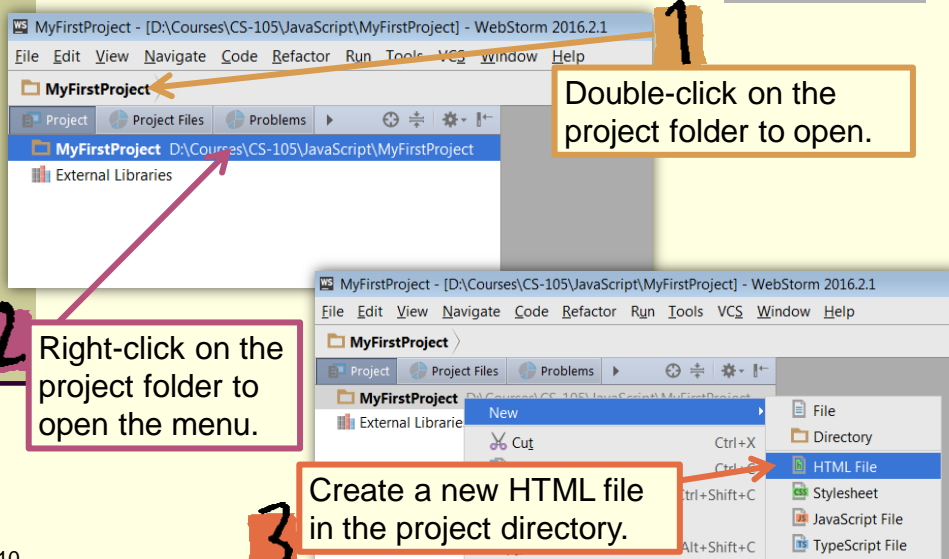
Create a Project Directory



If you are in a lab, select your USB drive.

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Add an HTML File to Your Project



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View of WebStorm With New .html File

The screenshot shows the WebStorm IDE interface. The top toolbar includes buttons for Project, Project Files, Problems, and a search icon. The breadcrumb trail shows the path: MyFirstProject > D:\Courses\CS-105\JavaScript\MyFirstProject. The file explorer on the left shows the project structure with 'HomePage.html' selected. The main editor displays the HTML code for 'HomePage.html' with line numbers 1 through 9. The code includes a DOCTYPE declaration, an HTML lang attribute, a head section with a meta charset and a title, and a body section. Annotations with blue arrows point from text boxes to the file explorer and the file path in the breadcrumb.

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11 CRLF+ UTF-8

HomePage.html where it belongs: inside the MyFirstProject folder.

Drive and folder *path* to your project folder.

Creating a .zip Archive for Turn-in

The screenshot shows a Windows File Explorer window with the path 'JavaScript > MyFirstProject'. The file 'HomePage.html' is selected, and a context menu is open. The menu options include Open, 7-Zip, CRC SHA, Convert to Adobe PDF, Combine files in Acrobat..., Edit with Vim, Send by Bluetooth to, Restore previous versions, Send to, Cut, Copy, Create shortcut, Delete, Rename, and Properties. The 'Send to' sub-menu is expanded, showing options like Compressed (zipped) folder, Desktop (create shortcut), Documents, Fax recipient, Mail recipient, and Skype. Annotations with blue arrows point from text boxes to the file, the context menu, and the 'Compressed (zipped) folder' option.

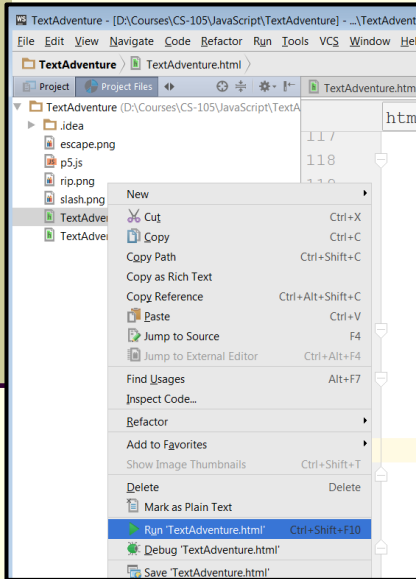
Right-click on file or folder.

Select:
Send to → Compressed (zipped) folder

You can also zip a whole project folder. Do this when your project contains many source, image and/or sound files.



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If chrome is your system's **default browser**, you can run a .html file in chrome from WebStorm, by right-clicking the file and selecting



However, if you do **NOT** want chrome as your system's **default browser**, you can still tell WebStorm to use chrome..... (see next slide)



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Setting Webstorm's Default Browser

You only need to do this if chrome is NOT your system's default browser.

Expand "Tools". Then Select "Web Browsers"

Drag Chrome to the top of the list.

Change "System default" to "First listed"