



Software Development Process

Steps to Create Software

Software:

Computer programs - Web Applications - Phone apps

Step 1:

Identify the goal

- What do you want to create?

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Step 2:

Brainstorm and design

- How do you want the layout to look?
- What are the major problems you need to solve?
- What are the smaller pieces that make up the bigger pieces?

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Step 3:

Programming and testing

- Test for functionality
- Find bugs and fix them

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Step 4:

Create and Submit First Version

- Create user interface
- Add styling
- Test functionality

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Step 5:

Maintenance/Editing/Revision

- Get feedback from users
- More debugging
- More testing for functionality
- Add features

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Step 6:

Publish New Version

- Repeat Steps 5 and 6 forever



JavaScript - The console

Definitions

console:

- a place to run, test, and debug your code

Google Chrome has a console in the Developer Tools

Press **command + option + i**

Codepen has a console you can open with the “console” button at the bottom of the screen.

console.log()

console.log() is like “println()” for the console.

Go to bit.ly/greenCircle

Codepen’s console will only show what’s been logged with console.log(). Chrome’s console will also give error messages.



JavaScript - Random Numbers

Math.random()

Math.random() is a built-in Javascript function that returns a decimal value between 0 and 1, but not including 1.

lowest value possible: 0

highest value possible: .999999999999999999999999999999999999...

Random Whole Number Formula

Memorize this:

```
Math.floor(Math.random() * (max - min + 1)) + min
```

Random Whole Number Formula

Example:

To simulate rolling a die, generate a random number between 1 and 6 inclusive

```
Math.floor(Math.random() * (max - min + 1)) + min
```

```
Math.floor(Math.random() * (6 - 1 + 1)) + 1
```

Simplify and store in a variable

```
var roll = Math.floor(Math.random() * (6)) + 1
```