

Introduction to the course. Managing the Application Life Cycle

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Last update: 24/11/2015

Agenda

- Introduction to the Course
- Tools
- Managing Application Life Cycle
- Resources
- Practice task

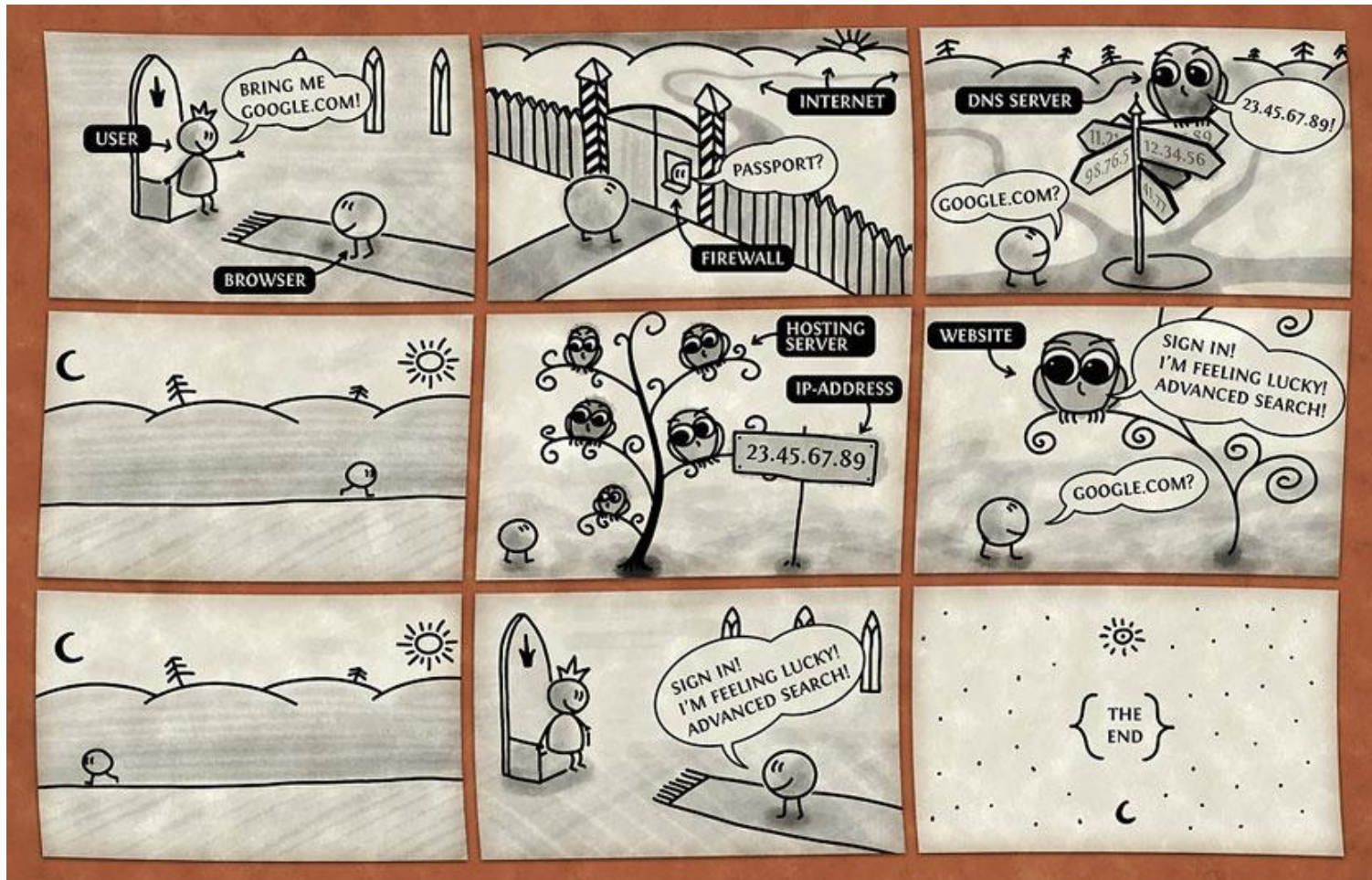
Introduction to the Course

HTML/CSS/JavaScript

- HTML – Hypertext Markup Language
- CSS – Cascading Style Sheets
- JavaScript – Programming Language

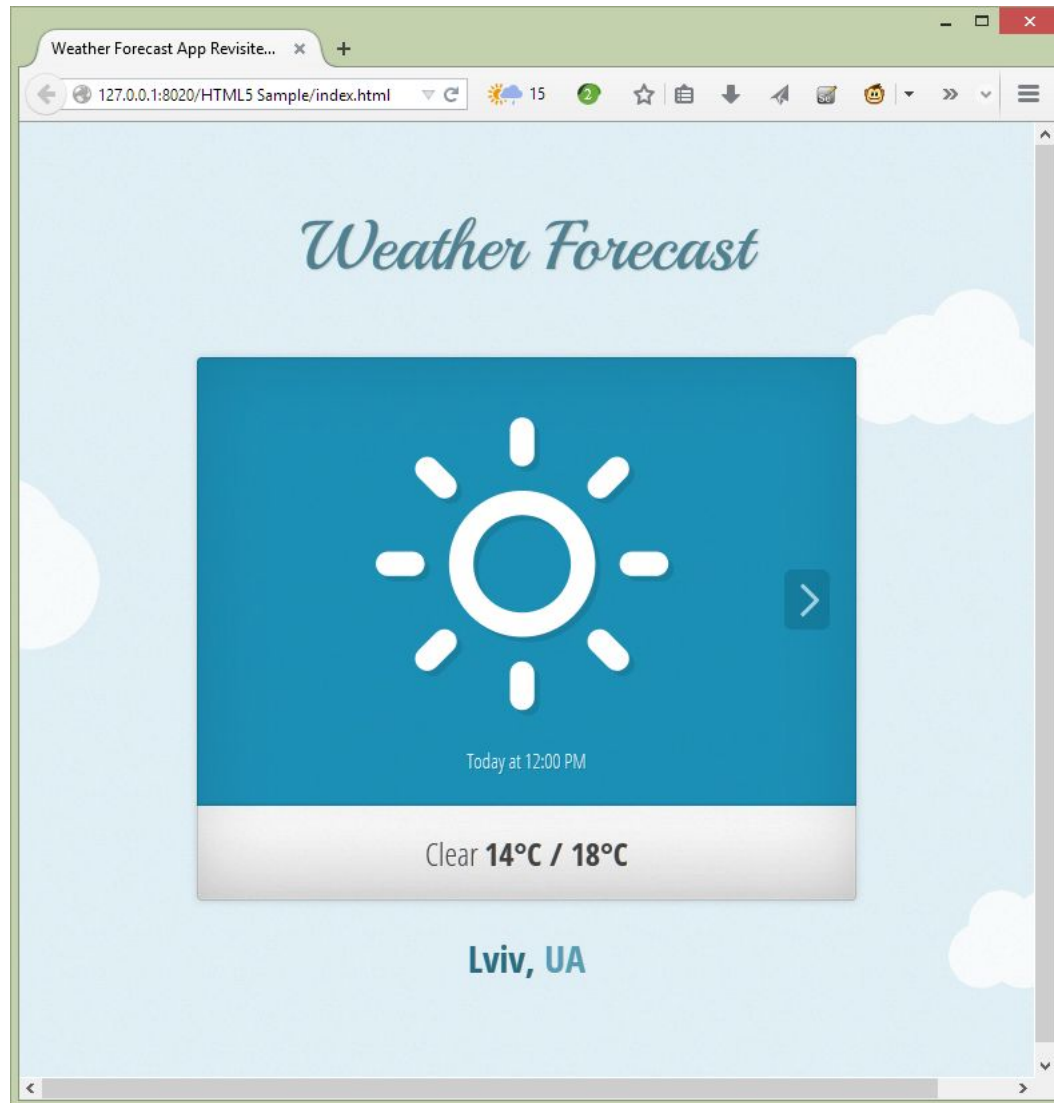


How do browsers work



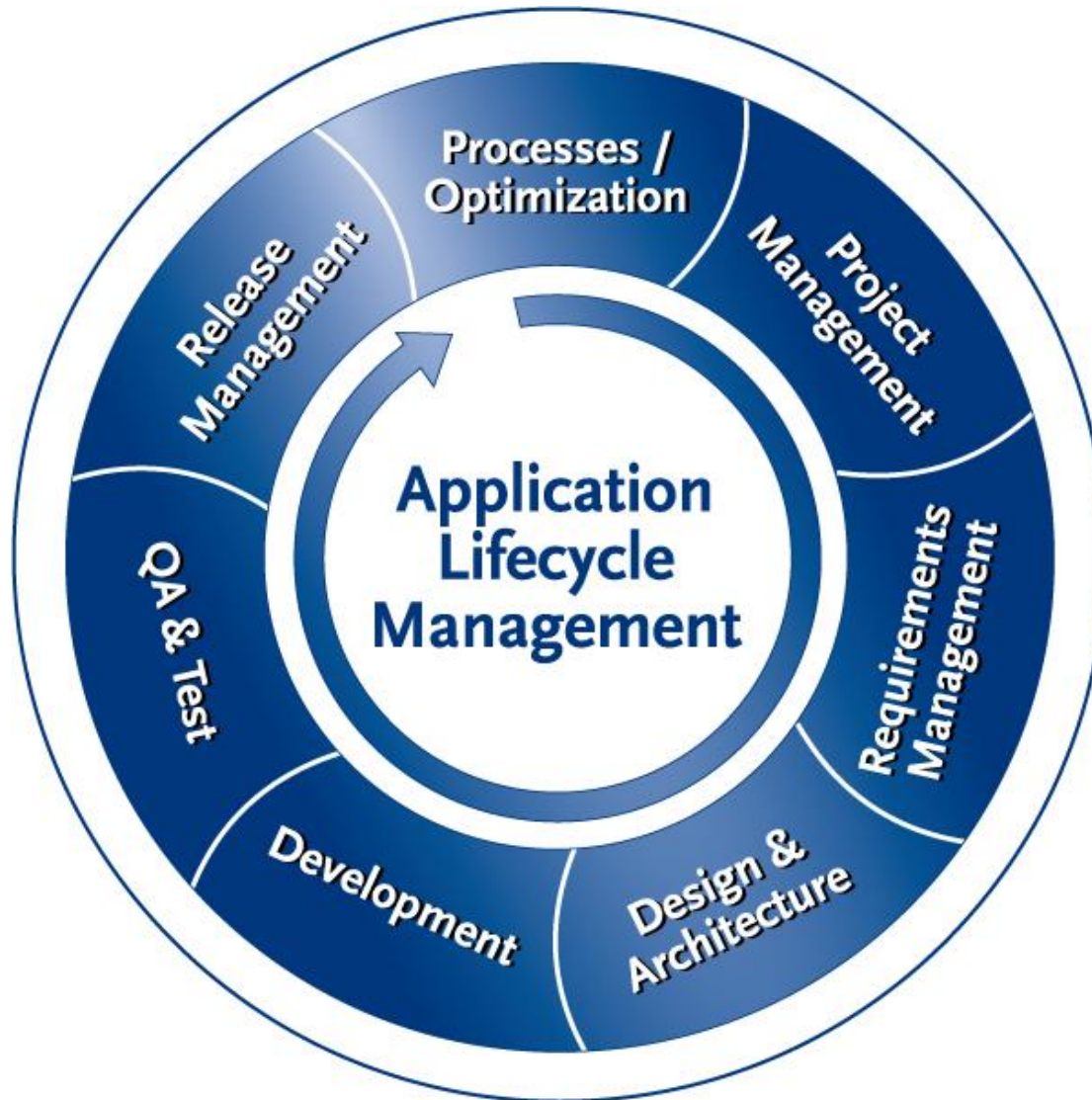
Detailed article: <http://www.html5rocks.com/ru/tutorials/internals/howbrowserswork/>

Sample project – Weather site

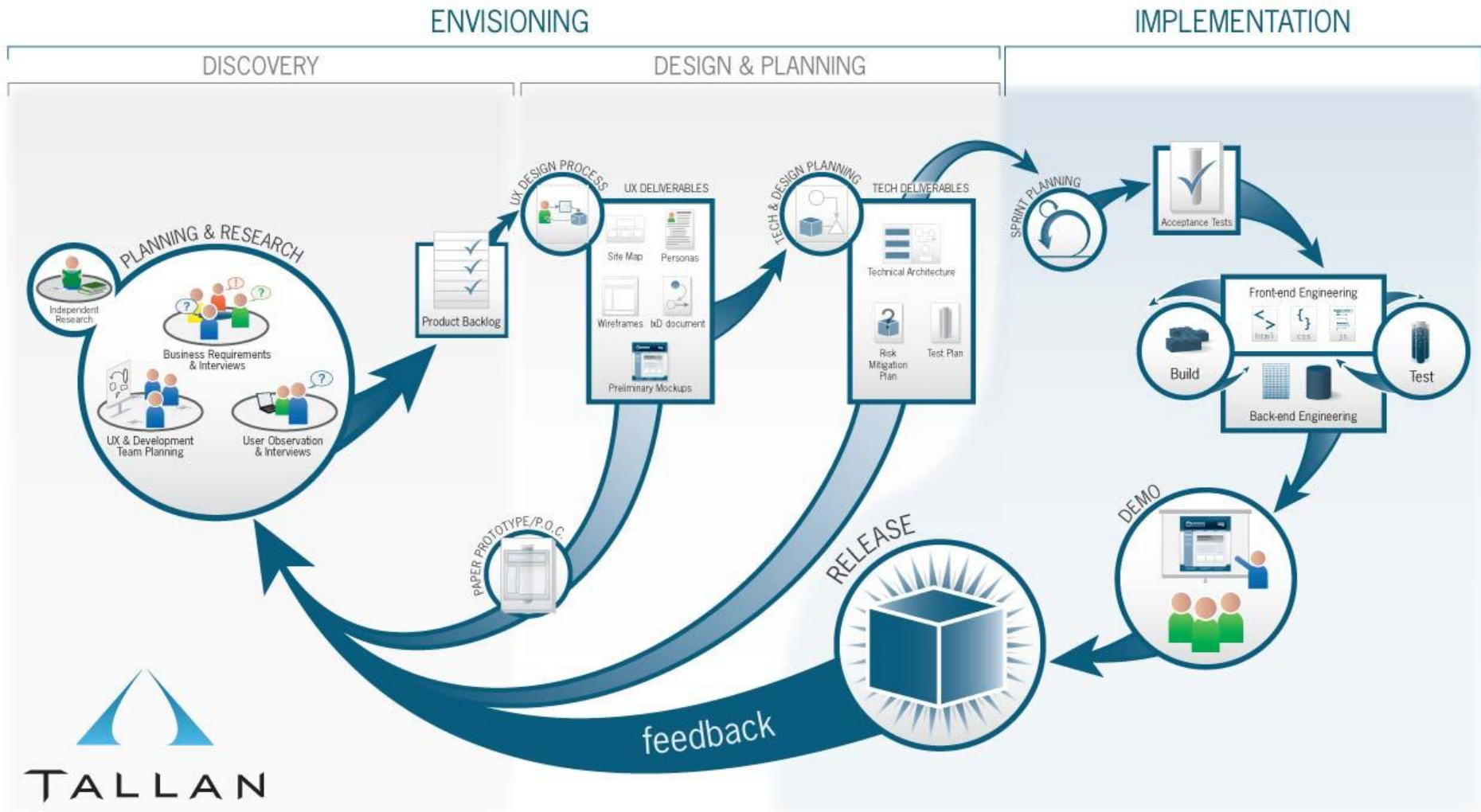


Managing Application Lifecycle

Application Lifecycle Management

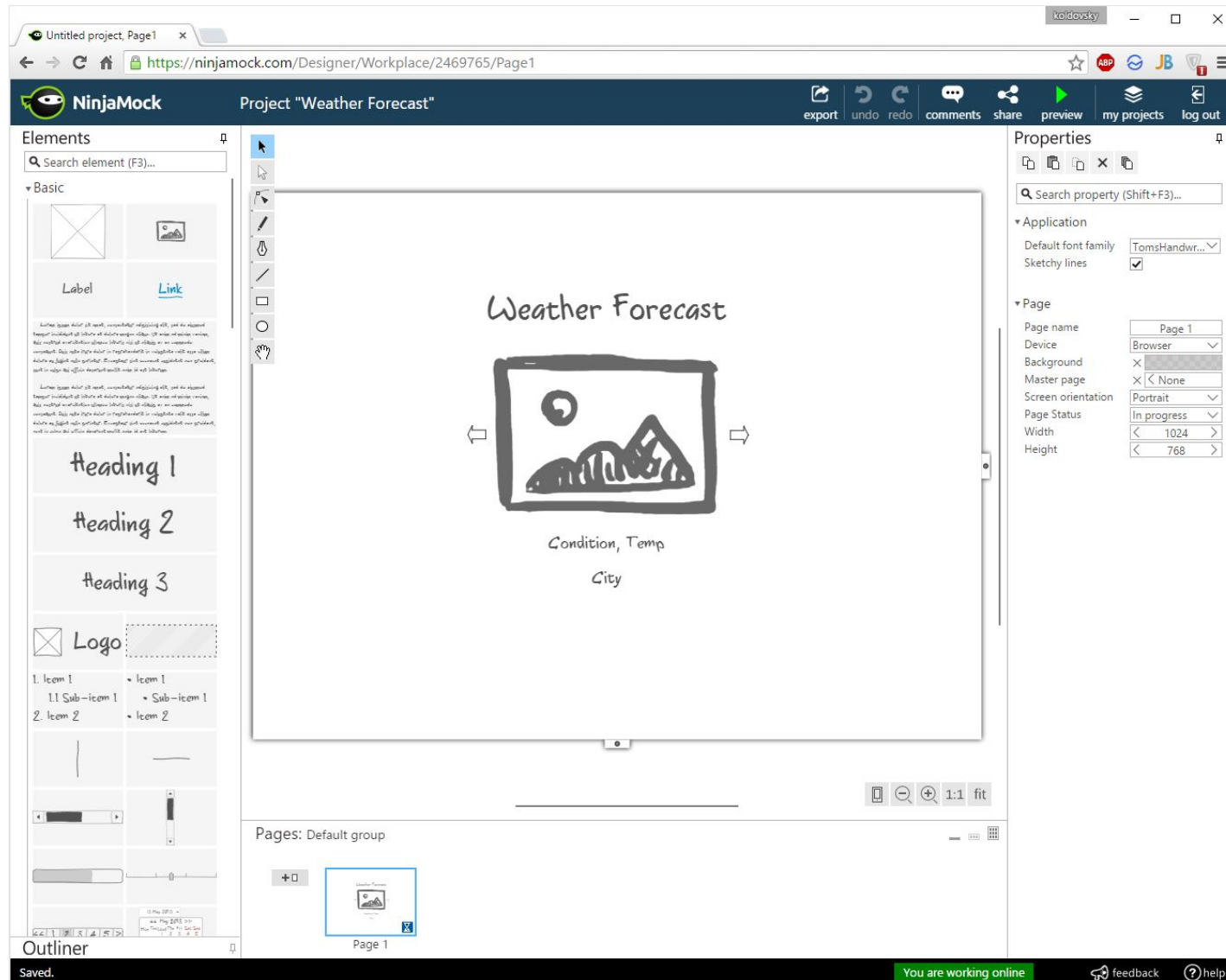


Agile website development process

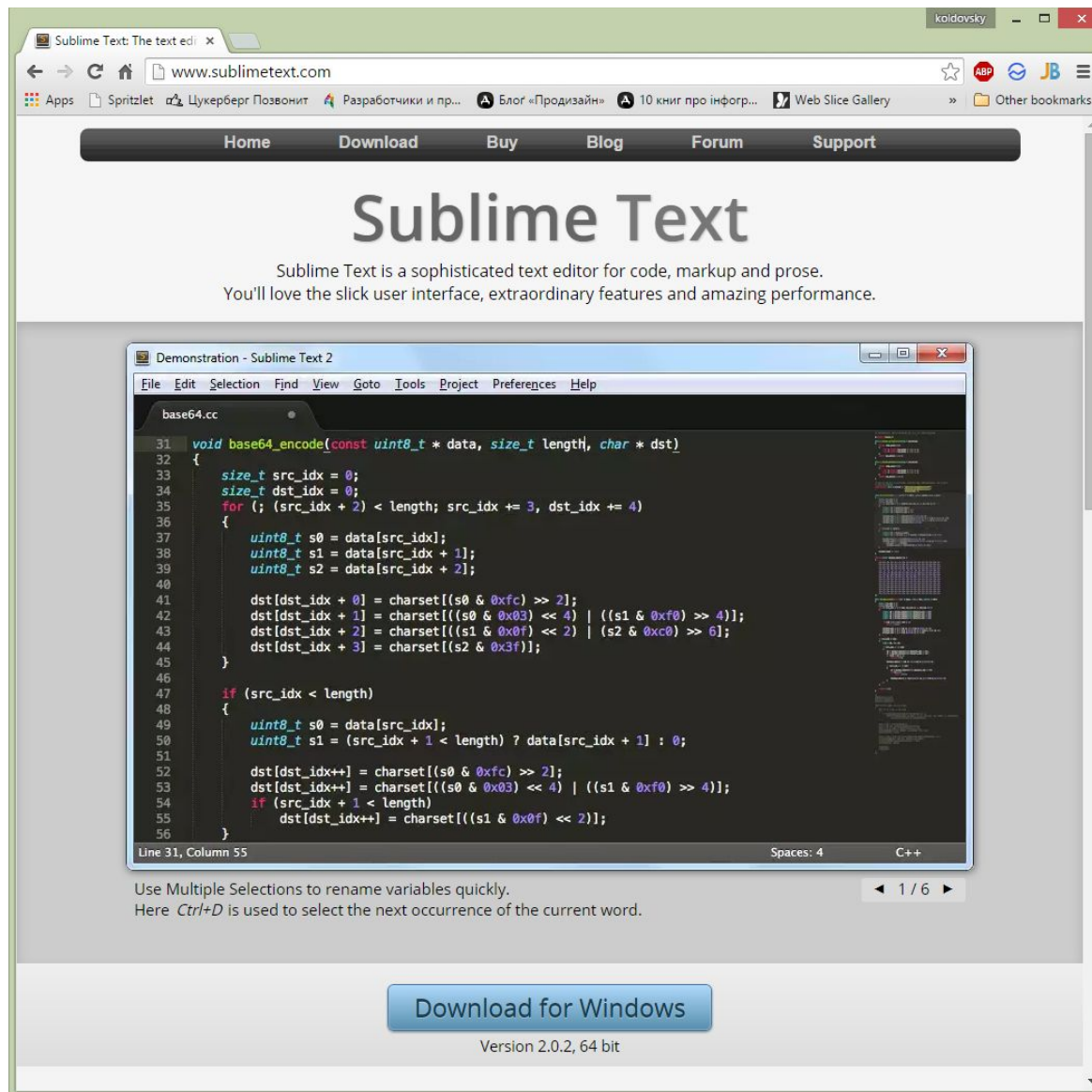


Tools

Mockups – NinjaMock



Sublime Text



The screenshot shows the Sublime Text website. At the top is a navigation bar with links: Home, Download, Buy, Blog, Forum, and Support. Below this is the Sublime Text logo and a description: "Sublime Text is a sophisticated text editor for code, markup and prose. You'll love the slick user interface, extraordinary features and amazing performance." A central window titled "Demonstration - Sublime Text 2" displays a C++ code editor with a file named "base64.cc". The code is a base64 encoding function. The editor interface includes a menu bar (File, Edit, Selection, Find, View, Goto, Tools, Project, Preferences, Help), a toolbar, and a status bar at the bottom showing "Line 31, Column 55", "Spaces: 4", and "C++". Below the code editor, there is a button labeled "Download for Windows" and the text "Version 2.0.2, 64 bit".

Sublime Text: The text editor

www.sublimetext.com

Home Download Buy Blog Forum Support

Sublime Text

Sublime Text is a sophisticated text editor for code, markup and prose.
You'll love the slick user interface, extraordinary features and amazing performance.

Demonstration - Sublime Text 2

```
File Edit Selection Find View Goto Tools Project Preferences Help
base64.cc
31 void base64_encode(const uint8_t * data, size_t length, char * dst)
32 {
33     size_t src_idx = 0;
34     size_t dst_idx = 0;
35     for (; (src_idx + 2) < length; src_idx += 3, dst_idx += 4)
36     {
37         uint8_t s0 = data[src_idx];
38         uint8_t s1 = data[src_idx + 1];
39         uint8_t s2 = data[src_idx + 2];
40
41         dst[dst_idx + 0] = charset[(s0 & 0xfc) >> 2];
42         dst[dst_idx + 1] = charset[((s0 & 0x03) << 4) | ((s1 & 0xf0) >> 4)];
43         dst[dst_idx + 2] = charset[((s1 & 0x0f) << 2) | (s2 & 0xc0) >> 6];
44         dst[dst_idx + 3] = charset[(s2 & 0x3f)];
45     }
46
47     if (src_idx < length)
48     {
49         uint8_t s0 = data[src_idx];
50         uint8_t s1 = (src_idx + 1 < length) ? data[src_idx + 1] : 0;
51
52         dst[dst_idx++] = charset[(s0 & 0xfc) >> 2];
53         dst[dst_idx++] = charset[((s0 & 0x03) << 4) | ((s1 & 0xf0) >> 4)];
54         if (src_idx + 1 < length)
55             dst[dst_idx++] = charset[((s1 & 0x0f) << 2)];
56     }
57 }
```

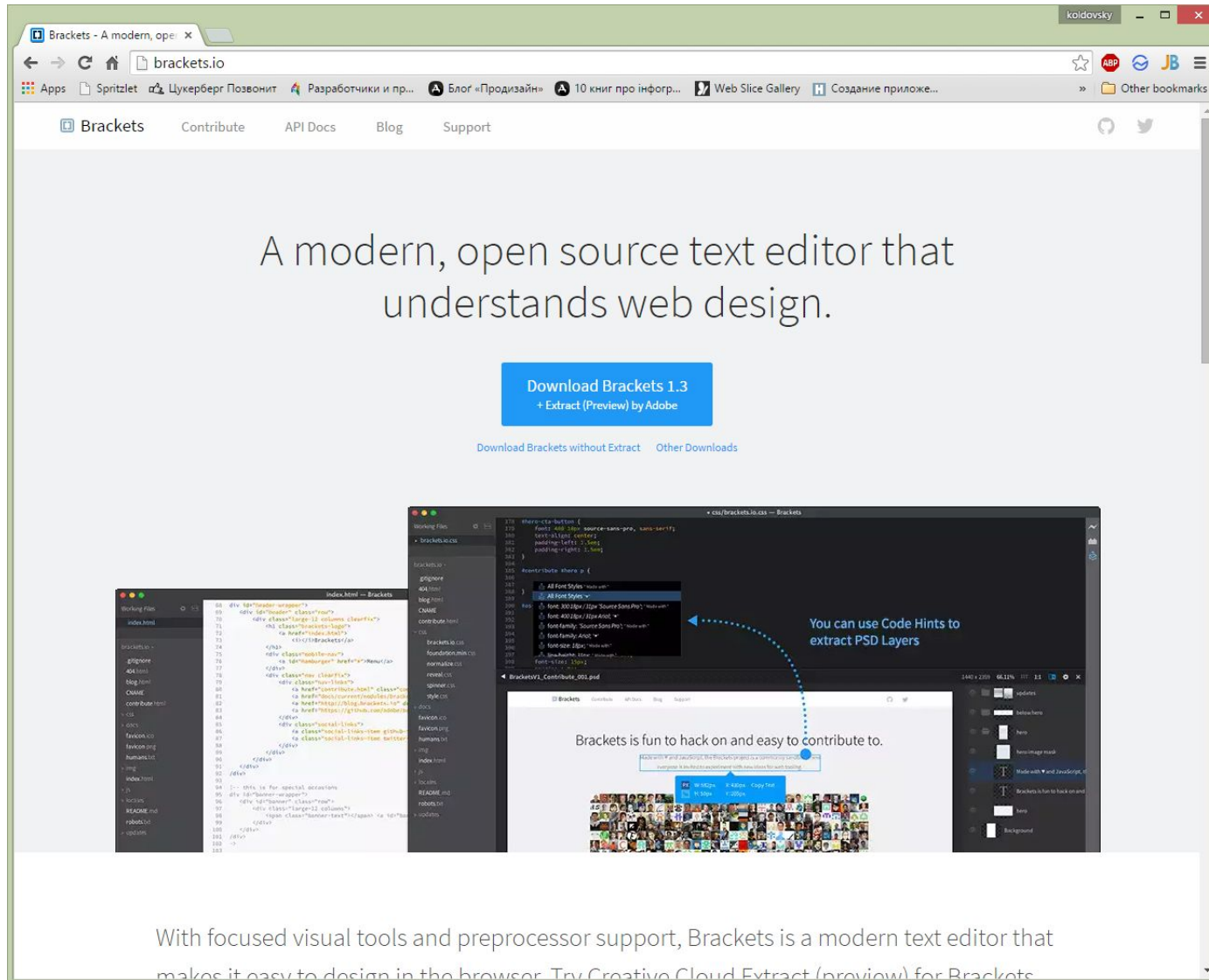
Line 31, Column 55 Spaces: 4 C++

Use Multiple Selections to rename variables quickly.
Here **Ctrl+D** is used to select the next occurrence of the current word.

Download for Windows

Version 2.0.2, 64 bit

Brackets

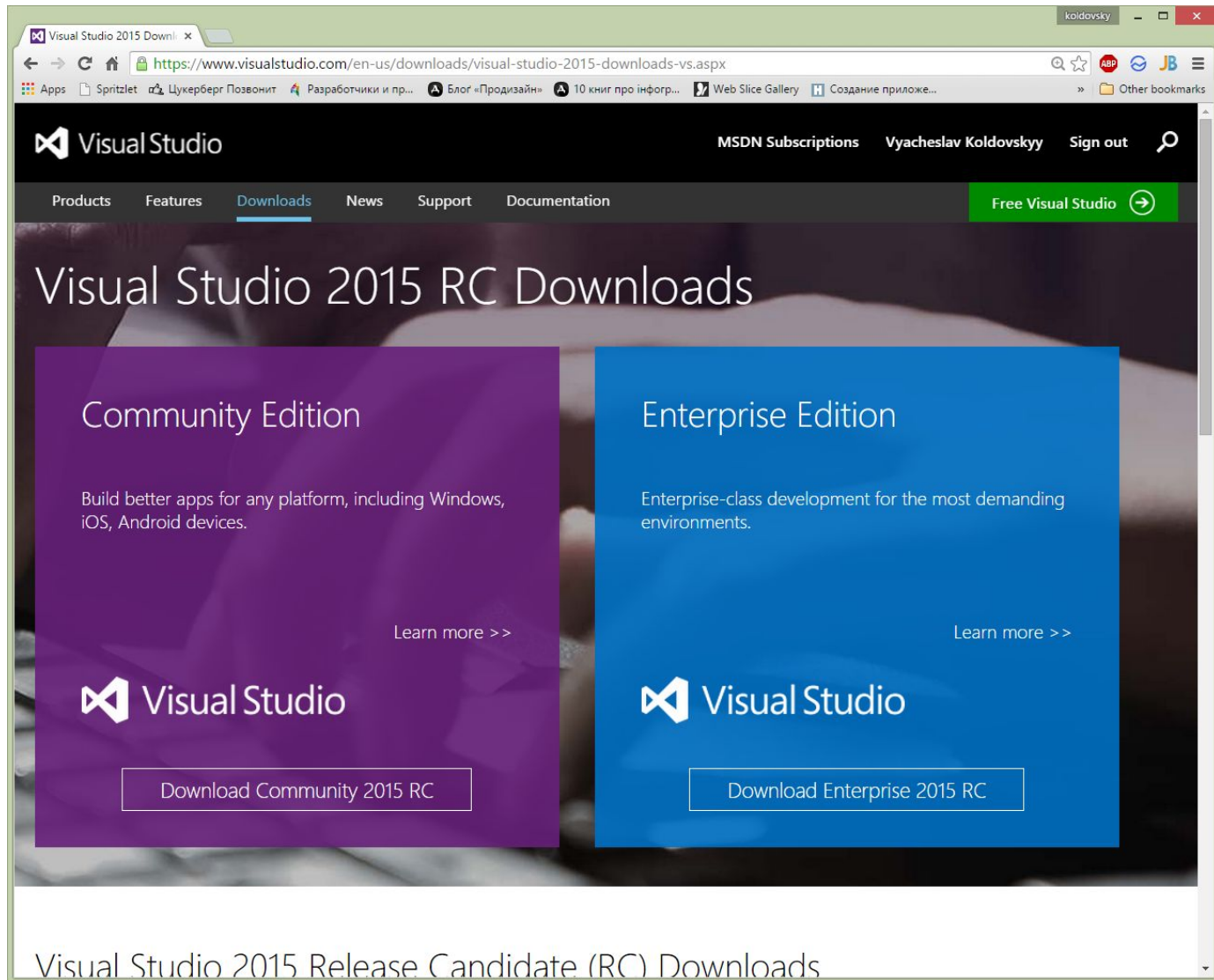


The image shows a screenshot of the Brackets website in a web browser. The website has a clean, modern design with a light gray background. At the top, there's a navigation bar with links to 'Brackets', 'Contribute', 'API Docs', 'Blog', and 'Support'. Below this, a large heading reads 'A modern, open source text editor that understands web design.' Underneath the heading is a blue button that says 'Download Brackets 1.3' with a sub-link '+ Extract (Preview) by Adobe'. Below the button are two smaller links: 'Download Brackets without Extract' and 'Other Downloads'.

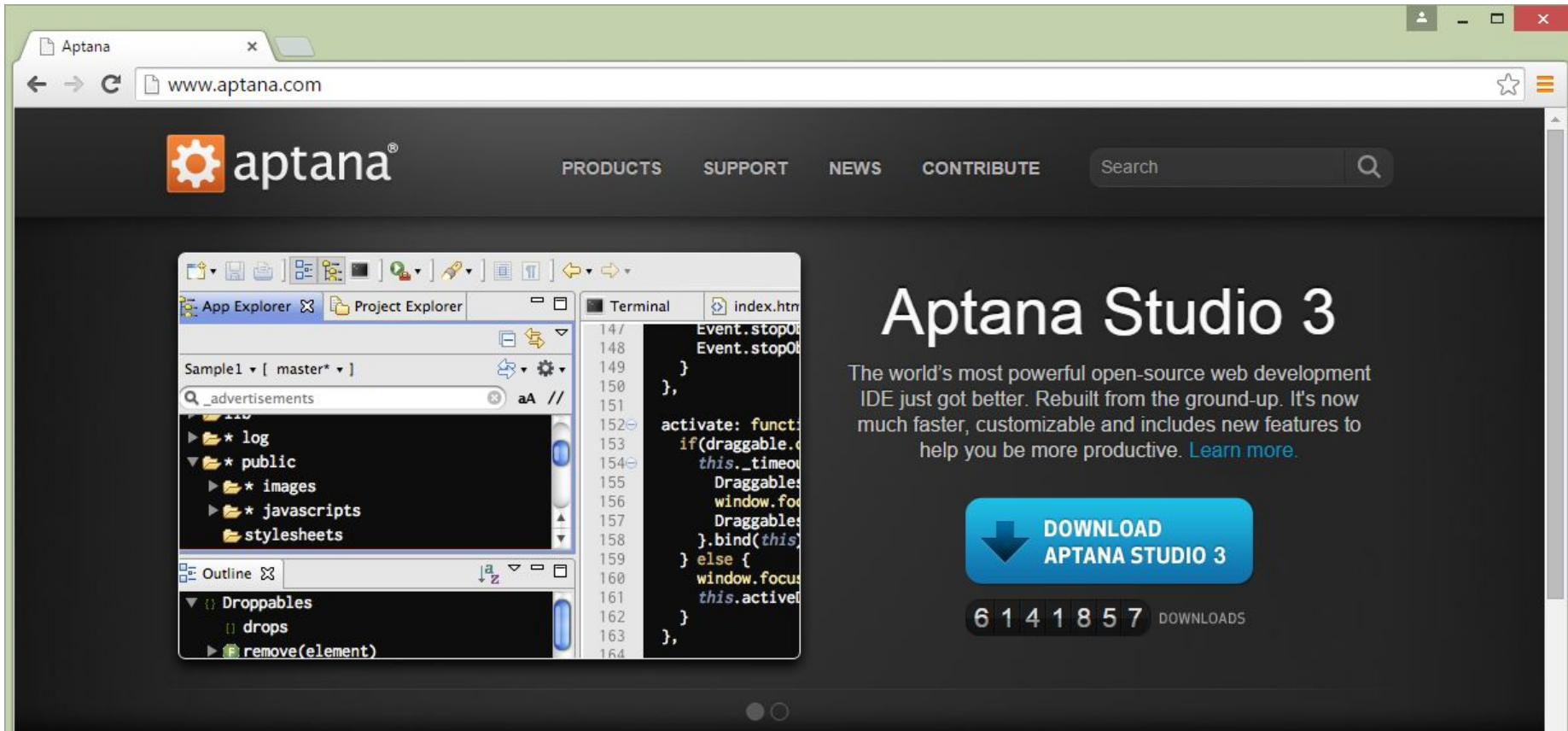
Below the website screenshot, there's a smaller image showing the Brackets editor interface. The editor has a dark theme. On the left, there's a file explorer showing a project structure. The main area shows a code editor with HTML code. On the right, there's a 'Properties' panel showing various settings for the selected element. A blue arrow points from the text 'You can use Code Hints to extract PSD Layers' to the 'Properties' panel. At the bottom of the editor interface, there's a footer that says 'Brackets is fun to hack on and easy to contribute to.'

With focused visual tools and preprocessor support, Brackets is a modern text editor that makes it easy to design in the browser. Try Creative Cloud Extract (preview) for Brackets.

MS Visual Studio Community Edition



Aptana Studio 3



Aptana Studio 3

The world's most powerful open-source web development IDE just got better. Rebuilt from the ground-up. It's now much faster, customizable and includes new features to help you be more productive. [Learn more.](#)

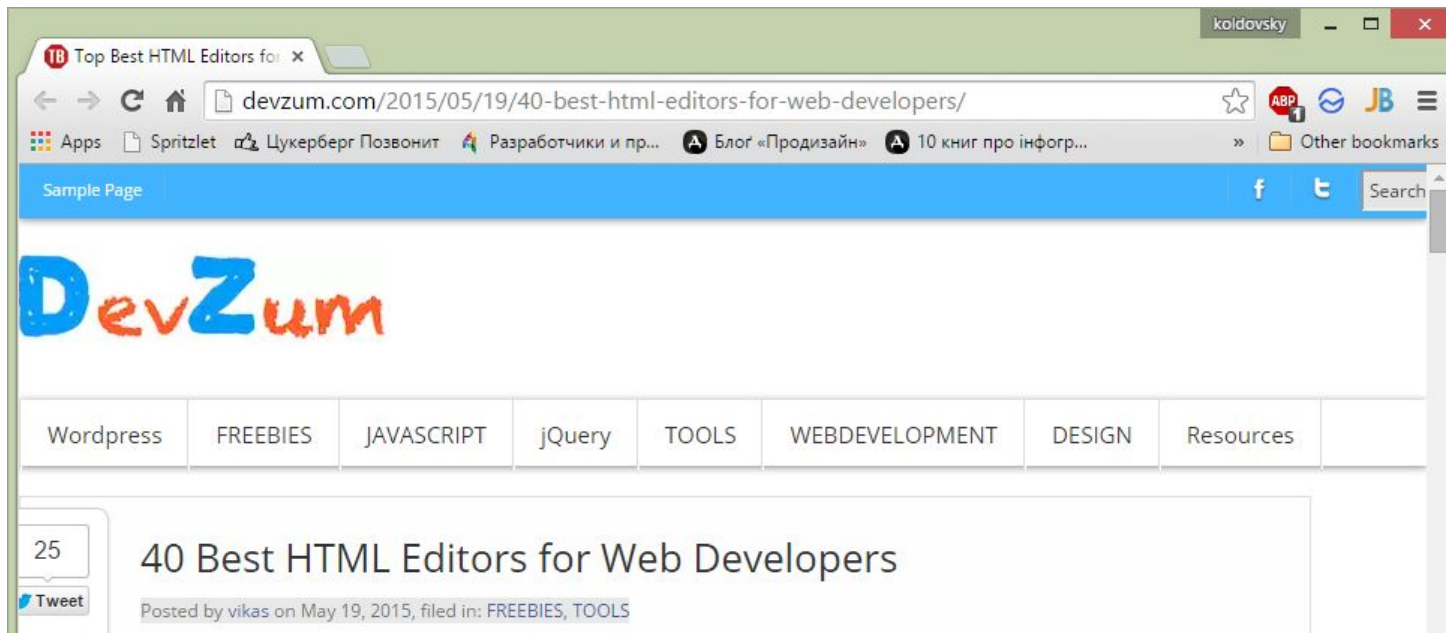
DOWNLOAD APTANA STUDIO 3

6 1 4 1 8 5 7 DOWNLOADS

Build web applications quickly and easily using the industry's leading web application IDE. Aptana Studio harnesses the flexibility of Eclipse and focuses it into a powerful web development engine.

And more...

- 40 Best HTML Editors for Web Developers:
<http://devzum.com/2015/05/19/40-best-html-editors-for-web-developers/>



Cloud 9

The screenshot displays the Cloud9 IDE interface. The top navigation bar includes menus for File, Edit, Find, View, Goto, Run, Tools, Window, and Support, along with buttons for Preview and Run. The left sidebar shows the Workspace with a file tree for 'weather_sample' containing 'assets', 'css', 'img', and 'js' folders, and files like 'script.js', 'weatherService', 'favicon.ico', and 'index.html'. The main editor area shows the 'index.html' file with the following content:

```
1 <!DOCTYPE html>
2 <html>
3   <head>
4     <meta charset="utf-8" />
5     <title>Сайт прогнозу погоди</title>
6
7     <!-- The stylesheet -->
8     <link rel="stylesheet" href="assets/css/styles.css" />
9
10    <!-- Google Fonts -->
11
```

The bottom panel shows a terminal window with the following output:

```
sts.
koldovskiy@weather_sample:~/workspace (gh-pages) $ git status
On branch gh-pages
Your branch is up-to-date with 'origin/gh-pages'.

nothing to commit, working directory clean
koldovskiy@weather_sample:~/workspace (gh-pages) $ git add .
koldovskiy@weather_sample:~/workspace (gh-pages) $ git commit -m "Added favicon, API key"
[gh-pages dfd098c] Added favicon, API key
 2 files changed, 1 insertion(+), 1 deletion(-)
 create mode 100644 favicon.ico
koldovskiy@weather_sample:~/workspace (gh-pages) $ git push origin gh-pages
Counting objects: 14, done.
Delta compression using up to 8 threads.
Compressing objects: 100% (6/6), done.
Writing objects: 100% (6/6), 813 bytes | 0 bytes/s, done.
Total 6 (delta 1), reused 0 (delta 0)
To git@github.com:koldovskiy/WeatherSample.git
 2e433b9..dfd098c  gh-pages -> gh-pages
koldovskiy@weather_sample:~/workspace (gh-pages) $ git status
On branch gh-pages
Your branch is up-to-date with 'origin/gh-pages'.
```

Resources

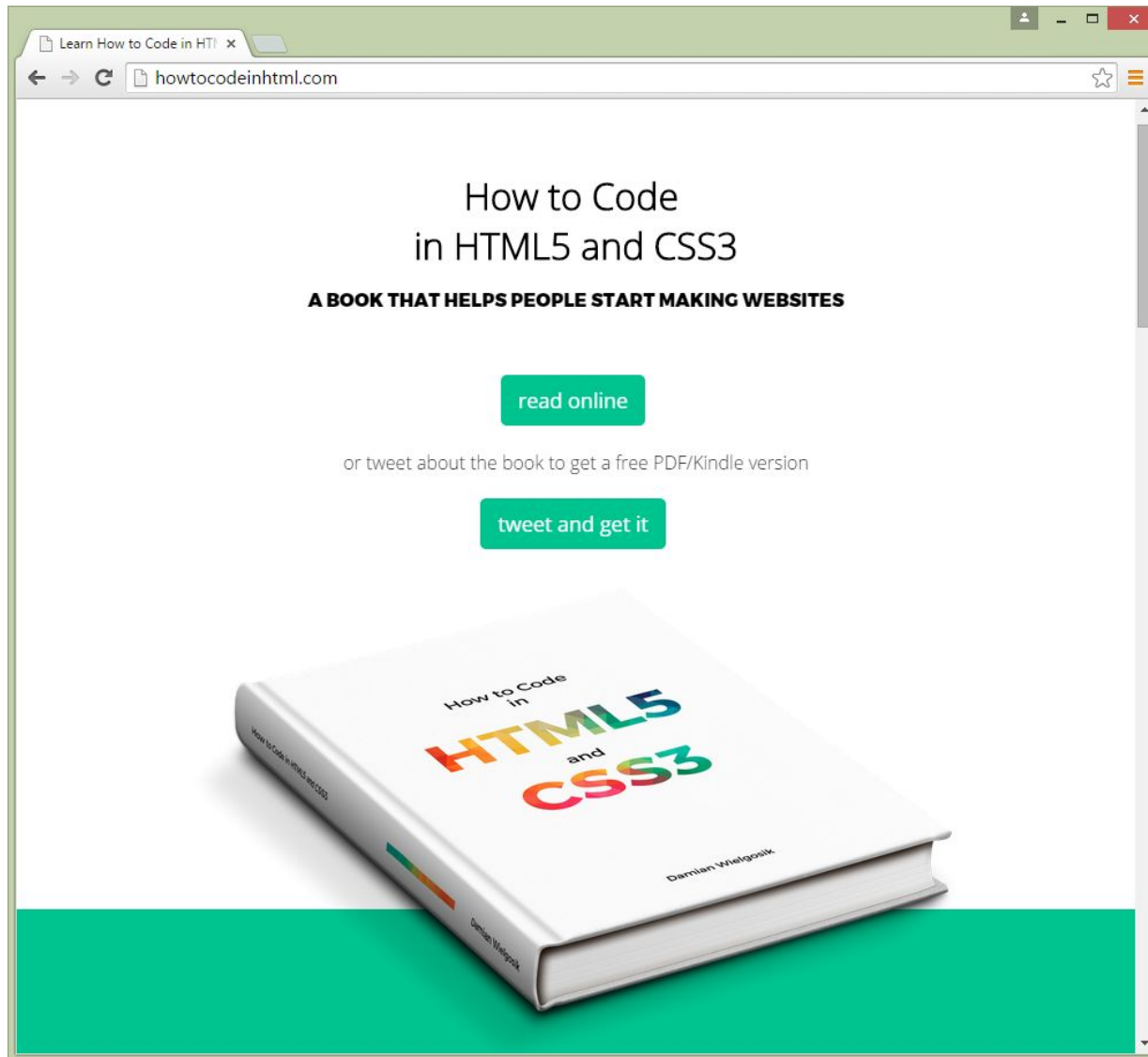
Microsoft Virtual Academy Course

The screenshot shows a web browser window displaying the Microsoft Virtual Academy course page. The browser's address bar shows the URL: www.microsoftvirtualacademy.com/training-courses/preparing-for-exam-mta-98-375-html5-. The page features a blue header with the Microsoft Virtual Academy logo and navigation links for Courses, Dashboard, and the user's name, Vyacheslav Koldovskyy. The main content area is titled 'Preparing for Exam MTA 98-375 HTML5 App Development Fundamentals' and includes a star rating, level information (Level 200), and a date (26 Sep 2014). A video player is embedded, showing a slide presentation titled '01 | Identify Exam Expectations'. The video player has a progress bar and a timestamp of 21 minutes, 43 seconds. To the right of the video player, there is a sidebar with a table of contents for the course. The table lists the following items:

Item	Duration	Points
01 Identify Exam Expectations	22 Minutes	3 Points
01 Slide Presentation	10 Minutes	1 Points
Take Assessment	10 Minutes	5 Points

Below the table, there is a 'Get Help' button. The footer of the page includes links for United States, Support, and Sitemap, as well as social media icons for Facebook, Twitter, YouTube, Google+, and RSS. The footer also contains the text '© 2015 Microsoft' and the Microsoft logo.

http://howtocodeinhtml.com



http://w3schools.com

The screenshot shows the W3Schools website in a web browser. The browser's address bar displays 'www.w3schools.com'. The website's header features the 'w3schools.com' logo and the tagline 'THE WORLD'S LARGEST WEB DEVELOPER SITE'. A green navigation bar contains links for 'TUTORIALS', 'REFERENCES', and 'EXAMPLES', along with a search icon. On the left side, a sidebar lists various topics: 'HTML/CSS' (with a sub-menu for Learn HTML, Learn CSS, Learn Bootstrap, and Learn W3.CSS), 'JavaScript' (with sub-menu items like Learn JavaScript, jQuery, jQueryMobile, AppML, AngularJS, AJAX, and JSON), 'HTML Graphics' (with sub-menu items like Canvas, SVG, Icons, and Google Maps), and 'Server Side'. The main content area is titled 'HTML' and describes it as 'The language for building web pages.' It includes two buttons: 'LEARN HTML' and 'HTML REFERENCE'. To the right, an 'HTML Example:' box displays a code snippet for a basic HTML document structure, including DOCTYPE, html, title, body, heading, and paragraph tags. Below the code is a 'Try it Yourself' button. At the bottom of the main content area, a 'CSS Example:' section is partially visible.

W3Schools Online Web Tutorials

www.w3schools.com

THE WORLD'S LARGEST WEB DEVELOPER SITE

TUTORIALS REFERENCES EXAMPLES

HTML/CSS

- Learn HTML
- Learn CSS
- Learn Bootstrap
- Learn W3.CSS

JavaScript

- Learn JavaScript
- Learn jQuery
- Learn jQueryMobile
- Learn AppML
- Learn AngularJS
- Learn AJAX
- Learn JSON

HTML Graphics

- Learn Canvas
- Learn SVG
- Learn Icons
- Learn Google Maps

Server Side

HTML

The language for building web pages.

LEARN HTML

HTML REFERENCE

HTML Example:

```
<!DOCTYPE html>
<html>
<title>HTML Tutorial</title>
<body>

<h1>This is a heading</h1>
<p>This is a paragraph.</p>

</body>
</html>
```

Try it Yourself

CSS Example:

overapi.com/html

OverAPI.com Python jQuery NodeJS PHP Java Ruby Javascript More » Search

Resource

Online
Official Website

Download
HTML/XML in one page
HTML Cheat Sheet [.pdf]
HTML quick reference [.pdf]
HTML & XHTML Tag Quick Reference [.pdf]
HTML5 Canvas Cheat Sheet [.pdf]

Related
Characters
CSS
JavaScript
XHTML

Attributes

Core
class
id
style
title

Language
dir
lang
xml:lang

Keyboard
accesskey
tabindex

Basic Tags

Basic
<!DOCTYPE>
<html>
<body>
<h1> to <h6>
<p>

<hr />

Images

<map>
<area />

Links
<a>
<link />

Lists

<div>
<dl>
<dt>
<dd>
<menu>

Entities

Character

"	"
&	&
<	<
>	>
@	@

Formatting

Format
<acronym>
<abbr>
<address>

<bdo>

<big>
<blockquote>
<center>
<cite>
<code>

<dfn>

<i>
<ins>
<kbd>
<pre>
<q>
<s>
<samp>
<small>
<strike>

<sub>
<sup>
<tt>
<u>
<var>
<xmp>

Status 2XX

2XX: Successful
200 OK

Status 1XX

1XX: Information
100 Continue
The server has received the request headers, and the client should proceed to send the request body.

Form/Table

Forms
<form>
<input />
<textarea>
<button>
<select>
<optgroup>
<option>
<label>
<fieldset>
<legend>

Tables
<table>
<caption>
<th>
<tr>
<td>
<thead>
<tbody>
<tfoot>
<col />
<colgroup>

Frames
<frame />
<frameset>
<noframes>
<iframe>

Others

Styles
<style>
<div>

Meta Info
<head>
<title>
<meta>
<base />
<basefont />

Programming
<script>
<noscript>
<applet>
<object>
<param />

HTML Events

<body>Events
onload
Script to be run when a document unload

Form Events
onblur
onchange
onfocus
onreset
onselect
onsubmit

Image Events

websitesetup.org/html5-cheat-sheet/



HTML 5 NEW TAG TAG NOT SUPPORTED IN HTML 5

| | |
|---------------------------|--|
| <!--...--> | Define a comment |
| <!DOCTYPE> | Defines the document type |
| <a> | Defines a hyperlink
href, hreflang, media, ping, rel, target, type |
| <abbr> | Defines an abbreviation |
| <acronym> | Used to define an embedded acronym |
| <address> | Defines an address element |
| <applet> | Used to define an embedded applet |
| <area> | Defines an area inside an image map
alt, coords, href, hreflang, media, ping, rel, shape, target, type |
| <article> | Defines an article
cite, pdate |
| <aside> | Defines content aside from the page content |
| <audio> | Defines sound content
autobuffer, autoplay, controls, src |
| | Defines bold text |
| <base> | Defines a base URL for all the links in a page
href, target |
| <basefont> | Used to define a default font-color, font-size, or font-family for all the document |
| <bdo> | Defines the direction of text display
dir |
| <big> | Used to make text bigger |
| <blockquote> | Defines a long quotation
cite |
| <body> | Defines the body element |
|
 | Inserts a single line break |
| <button> | Defines a push button
autofocus, disabled, form, formaction, formenctype, formmethod, formnovalidate, formtarget, name, type, value |
| <canvas> | Defines graphics
height, width |
| <caption> | Defines a table caption |
| <center> | Used to center align text and content |
| <cite> | Defines a citation |
| <code> | Defines computer code text
autobuffer, autoplay, controls, src |
| <col> | Defines attributes for table columns |
| <colgroup> | Defines groups of table columns
span |
| <command> | Defines a command button
checked, disabled, icon, label, radiogroup, type |

| | |
|---------------------------------|--|
| <datalist> | Defines a dropdown list |
| <dd> | Defines a definition description |
| | Defines deleted text
cite, datetime |
| <details> | Defines details of an element
open |
| <dialog> | Defines a dialog (conversation) |
| <dfn> | Defines a definition term |
| <dir> | Used to define a directory list |
| <div> | Defines a section in a document |
| <dl> | Defines a definition list |
| <dt> | Defines a definition term |
| | Defines emphasized text |
| <embed> | Defines external interactive content or plugin
height, src, type, width |
| <fieldset> | Defines a fieldset
disabled, form, name |
| <figure> | Defines a group of media content, and their caption |
| | Used to define font face, font size, and font color of text |
| <footer> | Defines a footer for a section or page |
| <form> | Defines a form
accept-charset, action, autocomplete, enctype, method, name, novalidate, target |
| <frame> | Used to define one particular window (frame) within a frameset |
| <frameset> | Used to define a frameset, which organized multiple windows (frames) |
| <h1> to <h6> | Defines header 1 to header 6 |
| <head> | Defines information about the document |
| <header> | Defines a header for a section or page |
| <hgroup> | Defines information about a section in a document |
| <hr> | Defines a horizontal rule |
| <html> | Defines an html document
manifest, xmlns |
| <i> | Defines italic text |
| <iframe> | Defines an inline sub window
height, name, sandbox, seamless, src, width |
| | Defines an image
alt, src, height, ismap, usemap, width |
| <input> | Defines an input field
accept, alt, autocomplete, autofocus, checked, disabled, form, formaction, formenctype, formmethod, formnovalidate, formtarget, height, list, max, maxlength, min, multiple, name, pattern, placeholder, readonly, required, size, src, step, type, value, width |

| | |
|----------------------------------|---|
| <ins> | Defines inserted text
cite, datetime |
| <keygen> | Defines a generated key in a form
autofocus, challenge, disabled, form, keytype, name |
| <kbd> | Defines keyboard text |
| <label> | Defines an inline sub window
for, form |
| <legend> | Defines a title in a fieldset |
| | Defines a list item
value |
| <link> | Defines a resource reference
href, hreflang, media, rel, sizes, type |
| <map> | Defines an image map
name |
| <mark> | Defines marked text |
| <menu> | Defines a menu list
label, type |
| <meta> | Defines meta information
charset, content, http-equiv, name |
| <meter> | Defines measurement within a predefined range
high, low, max, min, optimum, value |
| <nav> | Defines navigation links |
| <noframes> | Used to display text for browsers that do not handle frames |
| <noscript> | Defines a noscript section |
| <object> | Defines an embedded object
data, form, height, name, type, usemap, width |
| | Defines an ordered list
reversed, start |
| <optgroup> | Defines an option group
label, disabled |
| <option> | Defines an option in a drop-down list
disabled, label, selected, value |
| <output> | Defines some types of output
for, form, name |
| <p> | Defines a paragraph |
| <param> | Defines a parameter for an object
name, value |
| <pre> | Defines preformatted text |
| <progress> | Defines progress of a task of any kind
max, value |
| <q> | Defines a short quotation
cite |
| <rp> | Used in ruby annotations to define what to show browsers that do not support the ruby element |
| <rt> | Defines explanation to ruby annotations |
| <ruby> | Defines ruby annotations |
| <s>, <strike> | Used to define strikethrough text. |

| | |
|-------------------------------------|--|
| <samp> | Defines sample computer code |
| <script> | Defines a definition list
asynce, type, charset, defer, src |
| <section> | Defines a section
cite |
| <select> | Defines a selectable list
autofocus, disabled, form, multiple, name, size |
| <small> | Defines small text |
| <source> | Defines media resources
media, src, type |
| | Defines a section in a document |
| | Defines strong text |
| <style> | Defines a style definition
type, media, scoped |
| <sub>, <sup> | Defines sub/super-scripted text |
| <table> | Defines a table
summary |
| <tbody> | Defines a table body
summary |
| <td> | Defines a table cell
colspan, headers, rowspan |
| <textarea> | Defines a text area
autofocus, cols, disabled, form, maxlength, name, placeholder, readonly, required, rows, wrap |
| <tfoot>, <thead> | Defines a table footer / head |
| <th> | Defines a table header
colspan, headers, rowspan, scope |
| <time> | Defines a date/tim
datetime |
| <title> | Defines the document title |
| <tr> | Defines a table row
datetime |
| <tt> | Used to define teletype text |
| <u> | Used to define underlined text |
| | Defines an unordered list |
| <var> | Defines a variable |
| <video> | Defines a video
autobuffer, autoplay, controls, height, loop, src, width |

HTML5 TAG CHEAT SHEET Created by WebsiteSetup.org

Practice task

Practice task

- Prepare your working environment
- Open and run sample website
- Try to make changes and see updates

- Git commands:

```
git checkout -b gh-pages
```

```
git add .
```

```
git commit -m "add new file"
```

```
git push origin gh-pages
```

Homework

- Create mockup for your website

Contacts

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Website: **www.softserveinc.com**

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Fax: 239-690-3116

Thank You!