Forms

Collecting Information in a Usable Way

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1.4

Notes & URLs for this presentation can be found...

» underneath the link to this slide show on granneman.com
» at files.granneman.com/presentations/webdev/ Forms.txt

Intro

Forms in Daily Use

You use forms all the time

» Search
» Login
» Account creation
» Submit information
» Shopping
» Signing up for mailing lists

Google

Advanced search
Language tools

Google Search   I'm Feeling Lucky

Advertising Programs   Business Solutions   +Google   About Google

Ralph's Amazon.com   Today's Deals   Gift Cards   Sell   Help

Shop by
Department

Search   All ▾   [   ]   Go

Hello, Ralph
Your Account ▾

Your
Prime ▾

🛒 0 **Cart** ▾

Wish
List ▾

Instant Video   MP3 Store   Cloud Player   **Kindle**   Cloud Drive   **Appstore for Android**   **Digital Games & Software**   **Audible Audioboo**

Last Chance: Perfect Gift for Mom

kindle fire HDX

$229 $199 ›View Kindle offers

Limited-time offer

skype

Mom
I LOVE YOU!
xxx

Ingredients You
Can Pronounce   Give Free Shipping   **Mother's Day Gift Cards**   **Mother's Day**   Flat Sandals

There's
Still
Time!

happy mother's day

Just for **Mom**
Just in Time

Amazon Gift Cards with **Instant Delivery**

›Email   ›Print at home   ›Facebook

Ad Feedback 💬

Related to Items You've Viewed

You viewed   Customers who viewed this also viewed

Read | View source | View history

Search 🔍

WIKIPEDIA
The Free Encyclopedia

Welcome to Wikipedia,
the free encyclopedia that anyone can edit.
4,474,018 articles in English

- Arts
- Biography
- Geography
- History
- Mathematics
- Science
- Society
- Technology
- **All portals**

From today's featured article

On 4 December 1893, the **Shangani Patrol**, comprising 34 soldiers of the British South Africa Company, was annihilated by over 3,000 Matabele warriors during the First Matabele War, in Rhodesia (modern-day Zimbabwe). Major Patrick Forbes was attempting to capture the Matabele King Lobengula. A patrol, headed by Major Allan Wilson (pictured), was scouting ahead on the north side of the Shangani River. When Wilson's patrol moved in to capture Lobengula, it was ambushed by Matabele riflemen and warriors near the king's wagon. Surrounded and outnumbered about a hundred-fold, the patrol made a last stand as three of its number rode back to the river for reinforcements – without success as the Shangani was now in flood and Forbes was also involved in a skirmish. After fighting to the last cartridge, and killing over ten times their own number, Wilson and his men were annihilated. The patrol's members were regarded as national heroes for endeavour in the face of insurmountable odds. The anniversary of the battle became an annual public holiday in Rhodesia in 1895, and was an official non-work day until 1920. A film depicting the episode, *Shangani Patrol*, was released in 1970. (**Full article...**)

Recently featured: 1941 Atlantic hurricane season – Joseph W. Tkach – 1st Provisional Marine Brigade

Archive – **By email** – **More featured articles...**

Did you know...

From Wikipedia's new and recently improved content:

In the news

- Following the passage of **a secession referendum**, the Republic of Crimea **declares independence** from Ukraine and begins the process of accession to the Russian Federation.
- Anna Fenninger (*pictured*) and Marcel Hirscher of Austria win the overall **Alpine Skiing World Cup** titles.
- In rugby union, the **Six Nations** concludes with Ireland winning the championship.
- **Chiquita** and Fyffes agree to a merger that would create the world's largest banana producer.
- **Malaysia Airlines Flight 370** goes missing while en route from Kuala Lumpur to Beijing with 239 people on board.

Recent deaths: Tony Benn – Bob Crow

More current events...

On this day...

March 18: **Flag Day** in Aruba (1976)

- 1241 – First Mongol invasion of Poland: Mongols overwhelmed the Polish armies of Sandomierz and Kraków provinces in the **Battle of Chmielnik** and plundered the abandoned city of Kraków.
- 1871 – French President Adolphe Thiers (*pictured*)

facebook

Sign Up

It's free and always will be.

First Name | Last Name

Your Email

Re-enter Email

New Password

Birthday

Month | Day | Year   Why do I need to provide my birthday?

○ Female   ○ Male

By clicking Sign Up, you agree to our Terms and that you have read our Data Use Policy, including our Cookie Use.

Sign Up

How Forms Work

When you submit a form, data is sent from your browser to the server in `name=value` pairs

`https://www.google.com/search?q=cthulhu+rlyeh`

`q` is the `name`

`cthulhu+rlyeh` is the `value`

1. User fills in form & presses Submit
2. Name/value pairs sent to server
3. Server processes submitted info
4. Server creates a results page for user to see (optional)

Definitions

Label identifies the form field

Form field is made up of one or more *form controls* that have the same value in the `name` attribute

```html
<fieldset>
  <legend>Tell Zombies About You</legend>
  <p>
    <label for="name">Name:</label>
    <br><input type="text" name="name">
  </p>
  <p>
    <label for="email">Email:</label>
    <br><input type="text" name="email">
  </p>
  <p>
    Brain Size
    <br><input type="radio" name="brain"
    value="Small" id="small"> <label
    for="small">Small</label>
    <br><input type="radio" name="brain"
    value="Medium" id="medium"> <label
    for="medium">Medium</label>
    <br><input type="radio" name="brain"
    value="Large" id="large"> <label
    for="large">Large</label>
    <br><input type="radio" name="brain"
    value="Extra Large" id="extra-large">
    <label for="extra-large">Extra
    Large</label> ← Call us ASAP!
  </p>
</fieldset>
```

┌─ Tell Zombies About You ──────────────────

Name:

[   ]

Email:

[   ]

Brain Size
○ Small
○ Medium
○ Large
○ Extra Large ← Call us ASAP!

```
1  <fieldset>
2    <legend>Tell Zombies About You</legend>
3    <p>
4      <label for="name">Name:</label>
5      <br><input type="text" name="name">
6    </p>
7    <p>
8      <label for="email">Email:</label>
9      <br><input type="text" name="email">
10   </p>
11   <p>
12     Brain Size
13     <br><input type="radio" name="brain"
        value="Small" id="small"> <label
        for="small">Small</label>
14     <br><input type="radio" name="brain"
        value="Medium" id="medium"> <label
        for="medium">Medium</label>
15     <br><input type="radio" name="brain"
        value="Large" id="large"> <label
        for="large">Large</label>
16     <br><input type="radio" name="brain"
        value="Extra Large" id="extra-large">
        <label for="extra-large">Extra
        Large</label> ← Call us ASAP!
17   </p>
18 </fieldset>
```

Tell Zombies About You

Name:

Email:

Brain Size
○ Small
○ Medium
○ Large
○ Extra Large ← Call us ASAP!

☐ Label
☐ Form Controls
☐ Form Field

General
Form Attributes

name

value

id

size

disabled

type

`name="tentacle_number"`

`name` identifies the form field

Commonly the same as your database's column/attribute

Each field has its own unique value for name

Found in `<button>`, `<fieldset>`, `<form>`, `<input>`, `<select>`, & `<textarea>`

`value="Cthulhu"`

`value` provides data that gets submitted with the form

Note that values can also be entered by the user (e.g., in a text box)

A value is submitted for every field, even if it is null

Found in `<button>`, `<option>`, & `<input>`

`id="tentacle_number"`

`id` used by `<label>` to target the field

More later when we get to `<label>`

Also used with JavaScript

Very common to use same value for `name` & `id`

Global attribute, so found in every element

`size="40"`

`size` is deprecated—use CSS instead

Found in `<input>` & `<select>`

`disabled`

Disables user's ability to interact with the form control

Browsers usually gray it out

Found in `<button>`, `<fieldset>`, `<input>`, `<option>`, `<select>`, & `<textarea>`

```
type="button|checkbox|file|hidden|image|
password|radio|reset|submit|text"
```

For `<button>` & `<input>`, `type` determines which kind of form control to display

Default value is `text`

HTML5 introduces several new values for `type`

color	month	time
date	number	url
datetime	range	week
datetime-local	search	
email	tel	

Form
Containers

```
<form>

<fieldset>

<legend>

<label>
```

`<form>` ... `</form>`

Contains interactive *form controls*

```
<form action="http://www.miskatonic-
expedition.com/apply.php" method="get"
id="subscription">
```

action: URL for a program that receives form data &
processes it

method: how form is sent (2 methods: get & post)

action & method were formerly needed, but JavaScript
increasingly handles data submissions

`method="get"`

Values from form are added to the end of the URL specified in the action attribute

`https://www.google.com/search?q=cthulhu+rlyeh`

Good for:
» Short forms (like search)
» Retrieving data from a database & not adding or deleting

If `method` is not specified, `get` is used

```
method="post"
```

Values from form are sent in HTTP headers

Good for:
» Allowing users to upload files (required)
» Long forms
» Sensitive data, like login forms
» Adding data to, or deleting data from, a database

For testing & learning, you can use a `mailto` for the action

```
<form method="post"
action="mailto:you@domain.com?
subject=Form_Test" enctype="text/plain">
```

Completely insecure, so use with care!

`<fieldset> ... </fieldset>`

Group related form fields together

Border can be adjusted with CSS

```
1  <fieldset>
2    <p>
3      First Name:
4      <br><input type="text" name="first-
       name">
5    </p>
6    <p>
7      Last Name:
8      <br><input type="text" name="last-
       name">
9    </p>
10   <p>
11     Email:
12     <br><input type="text" name="email">
13   </p>
14 </fieldset>
```
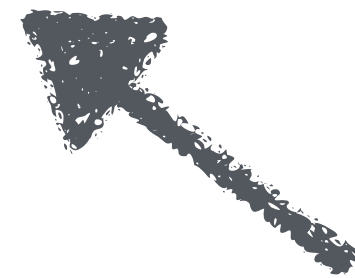
First Name:

Last Name:

Email:

`<legend>` … `</legend>`

Caption for grouped form fields that identifies their purpose

Always goes at top of `<fieldset>`

```
1  <fieldset>
2    <legend>Contact Info</legend>
3    <p>
4      First Name:
5      <br><input type="text" name="first-
       name">
6    </p>
7    <p>
8      Last Name:
9      <br><input type="text" name="last-
       name">
10   </p>
11   <p>
12     Email:
13     <br><input type="text" name="email">
14   </p>
15 </fieldset>
```

Contact Info

First Name:

Last Name:

Email:

`<label>` … `</label>`

Caption for specific form control

Can be placed in 2 ways

1. Using the `for` attribute
2. Placing form control inside `<label>`

The `for` attribute's value must match the form control's `id`

```
1  <fieldset>
2    <legend>Favorite zombie movie</legend>
3    <p>
4      <input type="radio" name="zombies" id="night"
       value="Night of the Living Dead">
5      <label for="night">Night of the Living
       Dead</label>
6    </p>
7    <p>
8      <input type="radio" name="zombies" id="dawn"
       value="Dawn of the Dead">
9      <label for="dawn">Dawn of the Dead</label>
10   </p>
11   <p>
12     <input type="radio" name="zombies" id="day"
       value="Day of the Dead">
13     <label for="day">Day of the Dead</label>
14   </p>
15 </fieldset>
```

Favorite zombie movie

○ Night of the Living Dead

○ Dawn of the Dead

○ Day of the Dead

The easier method is to place the form control inside `<label>`

The problem now is that if you style `<label>`, it affects the form control too

```html
<fieldset>
  <legend>Favorite zombie movie</legend>
  <label>
    <input type="radio" name="zombies"
    value="Night of the Living Dead">
    Night of the Living Dead
  </label>
  <label>
    <input type="radio" name="zombies" value="Dawn
    of the Dead">
    Dawn of the Dead
  </label>
  <label>
    <input type="radio" name="zombies" value="Day
    of the Dead">
    Day of the Dead
  </label>
</fieldset>
```

Favorite zombie movie

○ Night of the Living Dead

○ Dawn of the Dead

○ Day of the Dead

Big advantage of `label`: clickable area includes the label as well as the form control

Good for usability & accessibility

```
14  <p>
15    <input type="checkbox"
      name="zombies" value="Dawn">
      Dawn of the Dead
16  </p>
17  <p>
18    <input type="checkbox"
      name="zombies" value="Day">
      Day of the Dead
19  </p>
20  </form>
21
22  <h3>With <code>&lt;label></code>
    </h3>
23
24  <form>
25    <p>
26      Favorite zombie movie:
27    </p>
28    <p>
29      <label><input type="checkbox"
      name="zombies" value="Night">
      Night of the Living
      Dead</label>
30    </p>
31    <p>
32      <label><input type="checkbox"
```

Try clicking on the words instead of the checkbox. It won't work without a `<label>`, but it will with the `<label>` present.

Without `<label>`

Favorite zombie movie:

☐ Night of the Living Dead

☐ Dawn of the Dead

☐ Day of the Dead

With `<label>`

Favorite zombie movie:

☐ Night of the Living Dead

☐ Dawn of the Dead

☐ Day of the Dead

Label placement is important for usability

First name

Last name

Street address

City

State

Zip

Phone

E-mail

Age (optional)

Occupation (optional)

Gender Male

Marital Status Married

Education Pick one

Household Income Pick one

How do you usually read *The Village Voice*? Online

Would you like to receive a Voice Card? ☑ **Yes**

By submitting this entry, you agree to share your information with the sponsor of this giveaway.

No purchase necessary. You must include your name, address, and a valid e-mail address for your entry to be accepted. Winners will be picked at random and notified via email.

Enter   Clear Form

mozypro

Admin Console

Configuration   View all

Partners
Search / List Partners

Users
Search / List Users
Search / List Machines
Add New User

Configuration
▌Account Details
Edit Client Version
Client Configuration

▼ **Account Details**

👤 **WebSanity**

Name: WebSanity (change)

Username/Email: admin@websanity.com (change)

Password: Current Password: [_____]   New Password: [_____]   Confirm Password: [_____]   **Submit**   cancel

Receive Mozy Pro Newsletter? Yes (change)

Receive Mozy Email Notifications? Yes (change)

Receive Mozy Account Statements? No (change)

General rules of thumb

Above or to the left

» `<input>`

» `<textarea>`

» `<select>`

To the right

» `<input type="checkbox">`

» `<input type="radio">`

Field labels on top for mobile

Field labels on left for desktop

Basic Form Controls

```
<textarea> & <input type="text">

<input type="password">

<input type="radio"> & <input type="checkbox">

<select> & <option>

<input type="file">

<button type="submit"> & <button type="reset">

<input type="hidden">
```

Text

```
<textarea> & <input type="text">

<input type="password">
```

`<textarea>` ... `</textarea>`

Text area for *multiple lines of text*, like messages & comments

`cols` & `rows` attributes are deprecated—use CSS instead

HTML

```
1  <h3>Default sizing without CSS</h3>
2
3  <textarea name="about"></textarea>
4
5  <h3>Sizing set with CSS</h3>
6
7  <textarea name="about" class="sizing">
   </textarea>
```

CSS

```
1   .sizing {
2     font-size: 1rem;
3     height: 5rem;
4     width: 95%;
5   }
6
7   /* Uninteresting stuff below here */
8
9   html {
10    font-size: 24px;
11    font-family: "Iowan Old Style",
    Georgia, serif;
```

JS

Default sizing without CSS

Sizing set with CSS

Some browsers (like Safari & Firefox) allow users to resize `<textarea>`s manually

You can allow (or disallow—but don't) this behavior with the `resize` property

```html
1  <h3>Default sizing without CSS</h3>
2
3  <textarea name="about"></textarea>
4
5  <h3>Sizing set with CSS</h3>
6
7  <textarea name="about" class="sizing">
   </textarea>
```

```css
1  .sizing {
2    font-size: 1rem;
3    height: 5rem;
4    width: 95%;
5  }
6
7  /* Uninteresting stuff below here */
8
9  html {
10    font-size: 24px;
11    font-family: "Iowan Old Style",
   Georgia, serif;
```

Default sizing without CSS

Sizing set with CSS

Resizing handle
appears by default

`resize`

CSS property to control an element's resizability

Values
» `both`: user can resize both horizontally & vertically (default)
» `horizontal`: user can resize horizontally
» `vertical`: user can resize vertically
» `none`: user cannot resize ← Do not use this on `<textarea>`!

```html
1 <textarea name="about" class="sizing">
  </textarea>
```

```css
1 /* Move the CSS declaration you want to
  test to the end of its declaration
  block */
2
3 textarea {
4   resize: none;
5   resize: both;
6   resize: horizontal;
7   resize: vertical;
8 }
9
10 /* Uninteresting stuff below here */
```

Labeling `<textarea>`

1. text between `<textarea>` & `</textarea>`
2. `<label>`
3. `placeholder` attribute

HTML

```html
<h3>Labeling inside <code>&lt;textarea>
</code></h3>

<textarea name="creature">My favorite
Lovecraft creature is…</textarea>

<h3>Labeling with <code>&lt;label>
</code></h3>

<label for="creature">My favorite
Lovecraft creature is…</label>
<textarea name="creature" id="creature">
</textarea>

<h3>Labeling with
<code>placeholder</code> attribute</h3>

<textarea name="creature"
placeholder="My favorite Lovecraft
creature is…"></textarea>
```

CSS

JS

Labeling inside `<textarea>`

My favorite Lovecraft creature is…

Labeling with `<label>`

My favorite Lovecraft creature is…

Labeling with `placeholder` attribute

My favorite Lovecraft creature is…

If you put text between `<textarea>` & `</textarea>`, it appears in the `<form>` element & is submitted unless users delete it

Users will forget

```html
<h3>Labeling inside <code>&lt;textarea>
</code></h3>

<textarea name="creature">My favorite
Lovecraft creature is…</textarea>

<h3>Labeling with <code>&lt;label>
</code></h3>

<label for="creature">My favorite
Lovecraft creature is…</label>
<textarea name="creature" id="creature">
</textarea>

<h3>Labeling with
<code>placeholder</code> attribute</h3>

<textarea name="creature"
placeholder="My favorite Lovecraft
creature is…"></textarea>
```

Labeling inside `<textarea>`

My favorite Lovecraft creature is…

Labeling with `<label>`

My favorite Lovecraft creature is…

Labeling with `placeholder` attribute

My favorite Lovecraft creature is…

Form labels should be used

Only remove them if you have a *very* good reason

```html
<h3>Labeling inside <code>&lt;textarea>
</code></h3>

<textarea name="creature">My favorite
Lovecraft creature is…</textarea>

<h3>Labeling with <code>&lt;label>
</code></h3>

<label for="creature">My favorite
Lovecraft creature is…</label>
<textarea name="creature" id="creature">
</textarea>

<h3>Labeling with
<code>placeholder</code> attribute</h3>

<textarea name="creature"
placeholder="My favorite Lovecraft
creature is…"></textarea>
```

Labeling inside `<textarea>`

My favorite Lovecraft creature is...

Labeling with `<label>`

My favorite Lovecraft creature is...

Labeling with `placeholder` attribute

My favorite Lovecraft creature is...

facebook

Sign Up

It's free and always will be.

First Name

Last Name

Your Email

Re-enter Email

New Password

Birthday

Month

Day

Year

Why do I need to provide my birthday?

○ Female   ○ Male

By clicking Sign Up, you agree to our Terms and that you have read our Data Use Policy, including our Cookie Use.

Sign Up

The `placeholder` attribute places gray text in the text area

Gray text...

» *disappears* automatically when a user clicks in the `<textarea>` & types
» *reappears* if a user clicks out of the `<textarea>` without filling anything in

Remember, though: `placeholder` is a placeholder, not a label

The HTML5-only `placeholder` attribute works well only with really short forms

Using it as a label removes the user's ability to verify their answers because they cannot see the labels

"The `placeholder` attribute should not be used as a replacement for a `label`. … Use of the `placeholder` attribute as a replacement for a `label` can reduce the accessibility and usability of the control for a range of users including older users and users with cognitive, mobility, fine motor skill or vision impairments."
—W3C HTML 5.1 Editor's Draft, March 23, 2015

```
1 <p>We recommend using the
  <code>&lt;label></code> element,
  with the <code>placeholder</code>
  attribute used for annotations
  &amp; examples.</p>
2
3 <label for="creature">Tell us
  your favorite Lovecraft creature
  & why you like it:</label>
4 <textarea name="creature"
  id="creature"
  placeholder="Deities (e.g.,
  Cthulhu, Nyarlathotep, Yog-
  Sothoth) or species (e.g., Deep
  Ones, Shoggoths) are both fine!">
5 </textarea>
```

We recommend using the `<label>` element, with the `placeholder` attribute used for annotations & examples.

Tell us your favorite Lovecraft creature & why you like it:

Deities (e.g., Cthulhu, Nyarlathotep, Yog-Sothoth) or species (e.g., Deep Ones, Shoggoths) are both fine!

	![IE](Internet Explorer)	Safari	Chrome	Firefox	Android	iOS
resize	—	4	4	5	—	—
placeholder	10	5	4	4	2.1-3.0, 4.3	3.2

`<input type="text">`

Text input for *single lines of text*, like names, cities, & email addresses

`maxlength`: maximum number of characters users can enter (if absent, no limits)

`minlength`: minimum number of characters users can enter (use with caution!)

```html
1  <fieldset>
2    <legend>Contact Info</legend>
3    <p>
4      First Name:
5      <br><input type="text" name="first-name">
6    </p>
7    <p>
8      Last Name:
9      <br><input type="text" name="last-name">
10   </p>
11   <p>
12     Email:
13     <br><input type="text" name="email">
14   </p>
15 </fieldset>
```

CSS

JS

Contact Info

First Name:

Last Name:

Email:

Tell Us About Yourself

Name

E-mail Address

Preferred contact number: ☑ Home ☑ Mobile ☑ Office

Best time call: ☐ AM   ☐ PM

Please provide your suggestions to enhance Online Banking:

Please do not include personal account information here. Use our Secure message section of Online Banking to send account-related questions.

Submit   Clear All

`<input type="password">`

Text input with *content masked by* •

This is not secure by default! Data is not sent encrypted to the server unless you use HTTPS

`maxlength`: maximum number of characters users can enter (if absent, no limits)

```
1  <fieldset>
2    <legend>Create Account</legend>
3    <p>
4      User Name:
5      <br><input type="text" name="username"
       size="25" maxlength="25">
6    </p>
7    <p>
8      Password:
9      <br><input type="password" name="password"
       size="25" maxlength="128">
10   </p>
11 </fieldset>
```

Create Account

User Name:

Cthulhu

Password:

••••••••••••••••

Choices

`<input type="radio">` & `<input type="checkbox">`

`<select>` & `<option>`

`<input type="radio">`

Radio buttons that allow users to select one option only

Be careful—there's no way for users to *unselect* a radio button

Multiple radio buttons make up a form field, & all radio buttons in the same field must share the same value for the `name` attribute

```html
1  <fieldset>
2    <legend>Favorite Zombie Movie</legend>
3    <label>
4      <input type="radio" name="zombies"
       value="Dawn of the Dead (Romero)">
       Dawn of the Dead (Romero)
5    </label>
6    <label>
7      <input type="radio" name="zombies"
       value="Dawn of the Dead (Snyder)">
       Dawn of the Dead (Snyder)
8    </label>
9    <label>
10     <input type="radio" name="zombies"
       value="Day of the Dead"> Day of the
       Dead
11   </label>
12   <label>
13     <input type="radio" name="zombies"
       value="Night of the Living Dead">
       Night of the Living Dead
14   </label>
15   <label>
16     <input type="radio" name="zombies"
       value="Re-Animator"> Re-Animator
17   </label>
18   <label>
```

Favorite Zombie Movie

○ Dawn of the Dead (Romero)
○ Dawn of the Dead (Snyder)
○ Day of the Dead
○ Night of the Living Dead
○ Re-Animator
○ Return of the Living Dead
○ Shaun of the Dead
○ Zombi 2
○ Zombieland

![Nikon — At the heart of the image]

Join the Nikon Community Now!

. . . .

Email Address:

| scott@granneman.com |

Please carefully check your email address entry.

To ensure your email filter does not block messages from us, add our 'From' address (nikon@nikon.net) to your Address Book.

ZIP Code:

| 63112 |

○ Yes ⦿
No   Send me education based messages that will help me get the most out of my photography and sport optic equipment including helpful tips and lessons, inspirational articles and other related educational messages.

○ Yes ⦿
No   Send me the Nikon corporate newsletter that will keep me up to date on all the latest company news including newly released products, rebates and other relevant company information.

○ Yes ⦿
No   Send me special offers from Nikon marketing partners. Please note that these messages will come from Nikon, and at no point will Nikon will share or sell your contact information with these third parties.

○ Yes ⦿
No   If you would prefer to **not** receive additional email messages from Nikon, please select **No**.

(Submit)

eClinicalWeb

Questions/Concerns
- 🧑 Ask Doctor

Messages
- 📩 Inbox
- 📩 Sent Messages
- ✖ Deleted Messages

Account Information
- 👥 Personal Information
- 👥 Additional Information
- 👥 Reset Password

Intake Forms
- 📑 Patient History Questions
- 📑 Surgical and Allergies

Review
- 📋 Current Statement
- 📋 Past Statement
- 📊 Referrals
- 📊 PHR-Complete Report
- 🗑 PHR-View
- 🗑 Visit Summary

Appointments
- 📅 New Appointment

Patient History Questions

Please answer these questions:

Dermatology

bruising

⚪ Yes ⦿ No

rash

⚪ Yes ⚪ No

lumps

⚪ Yes ⚪ No

keloid formation

⚪ Yes ⚪ No

Constitutional

weight change

⚪ Yes ⚪ No

loss of appetite

⚪ Yes ⚪ No

fever

⚪ Yes ⚪ No

fatigue

⚪ Yes ⚪ No

```
<input type="checkbox">
```

Checkboxes that allow users to select—& unselect—one or more options

Multiple checkboxes make up a form field, & all checkboxes in the same field must share the same value for the `name` attribute

```
1   <fieldset>
2     <legend>Favorite Zombie Movies</legend>
3     <label>
4       <input type="checkbox" name="zombies"
        value="Dawn of the Dead (Romero)">
        Dawn of the Dead (Romero)
5     </label>
6     <label>
7       <input type="checkbox" name="zombies"
        value="Dawn of the Dead (Snyder)">
        Dawn of the Dead (Snyder)
8     </label>
9     <label>
10      <input type="checkbox" name="zombies"
        value="Day of the Dead"> Day of the
        Dead
11    </label>
12    <label>
13      <input type="checkbox" name="zombies"
        value="Night of the Living Dead">
        Night of the Living Dead
14    </label>
15    <label>
16      <input type="checkbox" name="zombies"
        value="Re-Animator"> Re-Animator
17    </label>
18    <label>
```

Favorite Zombie Movies

- ☐ Dawn of the Dead (Romero)
- ☐ Dawn of the Dead (Snyder)
- ☐ Day of the Dead
- ☐ Night of the Living Dead
- ☐ Re-Animator
- ☐ Return of the Living Dead
- ☐ Shaun of the Dead
- ☐ Zombi 2
- ☐ Zombieland

`<select>` ... `</select>`

Select list (AKA *drop-down menu*) that allows users to select one option from a list

`<option>` ... `</option>`

Provides a specific choice for users inside `<select>`

`selected`: if set, option is initially selected (so it can only be used on one `<option>`)

```
1  <fieldset>
2    <legend>Favorite Zombie Movie</legend>
3    <select name="zombies">
4      <option value=""> Choose one…</option>
5      <option value="Dawn of the Dead
         (Romero)"> Dawn of the Dead (Romero)
         </option>
6      <option value="Dawn of the Dead
         (Snyder)"> Dawn of the Dead (Snyder)
         </option>
7      <option value="Day of the Dead"> Day of
         the Dead</option>
8      <option value="Night of the Living Dead">
         Night of the Living Dead</option>
9      <option value="Re-Animator"> Re-
         Animator</option>
10     <option value="Return of the Living
         Dead"> Return of the Living Dead</option>
11     <option value="Shaun of the Dead"> Shaun
         of the Dead</option>
12     <option value="Zombi 2"> Zombi 2</option>
13     <option value="Zombieland">
         Zombieland</option>
14   </select>
15 </fieldset>
```

Favorite Zombie Movie

✓ Choose one…
Dawn of the Dead (Romero)
Dawn of the Dead (Snyder)
Day of the Dead
Night of the Living Dead
Re-Animator
Return of the Living Dead
Shaun of the Dead
Zombi 2
Zombieland

Select lists are similar to radio buttons in that users can only make 1 choice

If users need to see all options at the same time, radio buttons are better

If you have a very long list of options (such as a list of states or countries), select lists are better

`<select name="zombies" size="5" multiple>`

Multi-select lists allow users to select multiple options from a select list

Don't use this form control, as it's very confusing for users

`size`: number of options to show at once (turns select list into multi-select list)

`multiple`: if set, allows users to select multiple options (Command on OS X & Ctrl on Windows & Linux)

```html
<fieldset>
  <legend>Favorite Zombie Movie</legend>
  <small>(Hold down Ctrl or Command to select
  multiple movies)</small>
  <select name="zombies" size="5" multiple>
    <option value="Dawn of the Dead (Romero)">
    Dawn of the Dead (Romero)</option>
    <option value="Dawn of the Dead (Snyder)">
    Dawn of the Dead (Snyder)</option>
    <option value="Day of the Dead"> Day of the
    Dead</option>
    <option value="Night of the Living Dead">
    Night of the Living Dead</option>
    <option value="Re-Animator"> Re-
    Animator</option>
    <option value="Return of the Living Dead">
    Return of the Living Dead</option>
    <option value="Shaun of the Dead"> Shaun of
    the Dead</option>
    <option value="Zombi 2"> Zombi 2</option>
    <option value="Zombieland">
    Zombieland</option>
  </select>
</fieldset>
```

┌─ Favorite Zombie Movie ─────────────────────┐
│   │
│ (Hold down Ctrl or Command to select multiple movies) │
│ ┌─────────────────────────────────────┐   │
│ │ Dawn of the Dead (Romero)   │   │
│ │ Dawn of the Dead (Snyder)   │   │
│ │ Day of the Dead   │   │
│ │ Night of the Living Dead   │   │
│ │ Re-Animator   │   │
│ └─────────────────────────────────────┘   │
│   │
└───┘

Uploads

```
<input type="file">
```

File select: choose file on your computer to upload to a server

Requires `method="post"` in `<form>` to upload files

Difficult to style with CSS, so don't even try

Note in CodePen how my CSS is ignored

```
1 <input type="file" name="upload">
```

```
1 html {
2   font-size: 24px;
3   font-family: "Iowan Old Style",
  Georgia, serif;
4 }
```

Choose File   no file selected

```
<input type="file" name="images" multiple>
```

Upload multiple files (new in HTML5!)

You can also use other technologies to upload multiple files: e.g., Flash, PHP, JavaScript

Submission

```
<button type="submit"> & <button type="reset">

<input type="hidden">
```

`<button type="submit">`

Submits form to a server

Similar to `<input type="submit">`, but `<button>` is better because...

» Much easier to style
» Can add inner HTML content (e.g., `<i>`, `<b>`, `<img>`)
» Can use `::after` & `::before` pseudo-elements

```
19       <input type="checkbox"
       name="zombies" value="Return of the
       Living Dead"> Return of the Living
       Dead
20     </label>
21     <label>
22       <input type="checkbox"
       name="zombies" value="Shaun of the
       Dead"> Shaun of the Dead
23     </label>
24     <label>
25       <input type="checkbox"
       name="zombies" value="Zombi 2">
       Zombi 2
26     </label>
27     <label>
28       <input type="checkbox"
       name="zombies" value="Zombieland">
       Zombieland
29     </label>
30 </fieldset>
31
32 <button type="submit">Vote or I'll eat
   your brains!</button>
33
```

Favorite Zombie Movies

☐ Dawn of the Dead (Romero)
☐ Dawn of the Dead (Snyder)
☐ Day of the Dead
☐ Night of the Living Dead
☐ Re-Animator
☐ Return of the Living Dead
☐ Shaun of the Dead
☐ Zombi 2
☐ Zombieland

Vote or I'll eat your brains!

The Submit button goes on the right

In fact, it's really the only button you need

Multi-page forms aren't very usable & users don't really like them

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Need Help?
1.800.MYAMFAM
(692.6326)

Products ˅   Learn & Plan ˅   Claims ˅   Payments ˅   My Account ˅

Overview   Saved Quotes   **Online Billing**   Policies   Profile   Help   Log Out

Billing Account Summary

Payments

Make a Payment

View/Edit Payments

Automatic Payments

Financial Information

Set Up New Payment Method

View/Edit Payment Methods

Manage Billing Accounts

Due Date Reminder

Register Billing Account

Unregister Billing Account

Help

FAQs

Contact Billing

Enter Payment Information - Verification

Enter Payment   Verify   Confirm

Please verify that the information below is correct. If you need to make changes, click "Edit." To proceed, click "Submit."

Billing Account: 007-592-614-45

Payment Amount:	$551.00
Payment Method Name:	MasterCard
Payment Date:	04/05/2010

Submit   Edit   Cancel

Inquiring Document: Ticket N48158283
You have a total of 1 ticket(s) on your account.

The amount of the ticket entered is: **$20.00**
The total amount of your ticket(s) is: **$20.00**

Please select from the following:

🔘 I would like to pay for this ticket only.

Ticket Number	Issue Date	Violation	Location	Amount
N48158283	07/28/2010	STREET CLEANING	6400 ODELL	$20.00

Total Payment: $20.00

(Submit)   (Back)   (Cancel)

First name [   ]

Last name [   ]

Street address [   ]

City [   ]

State [   ]

Zip [   ]

Phone [   ]

E-mail [   ]

Age (optional) [   ]

Occupation (optional) [   ]

Gender [Male ▾]

Marital Status [Married ▾]

Education [Pick one ▾]

Household Income [Pick one ▾]

How do you usually read *The Village Voice*? [Online ▾]

Would you like to receive a Voice Card? ☑ **Yes**

By submitting this entry, you agree to share your information with the sponsor of this giveaway.

No purchase necessary. You must include your name, address, and a valid e-mail address for your entry to be accepted. Winners will be picked at random and notified via email.

[Enter] [Clear Form]

Actually, try to get all your buttons in the correct order

Billing Account Summary

Payments

Make a Payment

View/Edit Payments

Automatic Payments

Financial Information

Set Up New Payment Method

View/Edit Payment Methods

Manage Billing Accounts

Due Date Reminder

Register Billing Account

Unregister Billing Account

Help

FAQs

Contact Billing

Enter Payment Information

Enter Payment 〉 Verify 〉 Confirm 〉

To make a payment, please complete the information below and click "Next."

* indicates required information

Billing Account: 007-592-614-45   View Bill [i]

Statement Date:	03/25/2010
Due Date:	04/21/2010

Payment Amount: [?] *

○ Minimum Due $45.99

◉ Account Balance $551.00

○ Other $ _____

Payment Method Name: *   MasterCard   **View/Edit Payment Methods**   **Set Up New Payment Method**

Payment Date: [?] *   04/05/2010 ▲▼ 📅

Next   **Previous**

`<button type="reset">`

Restores form to its original values

Do *not* use this except for testing!

Do *not* use this on live forms!

Similar to `<input type="reset">`, but `<button>` is better, as explained with `<button type="submit">`

```
        Living Dead"> Return of the Living
        Dead
20    </label>
21    <label>
22      <input type="checkbox"
        name="zombies" value="Shaun of the
        Dead"> Shaun of the Dead
23    </label>
24    <label>
25      <input type="checkbox"
        name="zombies" value="Zombi 2">
        Zombi 2
26    </label>
27    <label>
28      <input type="checkbox"
        name="zombies" value="Zombieland">
        Zombieland
29    </label>
30  </fieldset>
31
32  <button type="reset">Lose all your
    work!</button>
33  <button type="submit">Vote or I'll eat
    your brains!</button>
34
```

Favorite Zombie Movies

☐ Dawn of the Dead (Romero)
☐ Dawn of the Dead (Snyder)
☐ Day of the Dead
☐ Night of the Living Dead
☐ Re-Animator
☐ Return of the Living Dead
☐ Shaun of the Dead
☐ Zombi 2
☐ Zombieland

Lose all your work!   Vote or I'll eat your brains!

If you do use a Reset button (& you should *not*), do not make it look like a Submit button

6 How would you like to pay?

Please enter your payment information below. The information you enter will be transmitted using a secure connection. Required fields are indicated with ◆ .

Bill Shipping Charges to: ⊡

Visaxxxxxxxxxxxxx7833 ⬍ ◆

Associate a Shipper's UPS Account ⊡

Use Another UPS Shipper Account ⬍ ◆

UPS Account Number

V428E4 ◆

Account Name:

WebSanity ◆

Your descriptive name for this account

Country:

United States or Puerto Rico

ZIP Code

63117 ◆

Save Options for Account number:

Save As new Entry and Set As Default ⬍

Don't have a UPS Account?

Open a UPS Account (You will leave the shipping screens)

7 Would you like to schedule a pickup?

☐ Schedule a UPS On-Call Pickup. ⊡ - An additional fee may apply

☑ Review Shipping details, including price, before completing this shipment

Start Over　**Next »**

`<input type="hidden">`

Fields *invisible to users*, but used by developers to add hidden values to forms

```html
21    <label>
22      <input type="checkbox"
      name="zombies" value="Shaun of the
      Dead"> Shaun of the Dead
23    </label>
24    <label>
25      <input type="checkbox"
      name="zombies" value="Zombi 2">
      Zombi 2
26    </label>
27    <label>
28      <input type="checkbox"
      name="zombies" value="Zombieland">
      Zombieland
29    </label>
30 </fieldset>
31
32 <input type="hidden" name="BrainID"
   value="D311C10US">
33
34 <button type="reset">Lose all your
   work!</button>
35 <button type="submit">Vote or I'll eat
   your brains!</button>
36
```

Favorite Zombie Movies

☐ Dawn of the Dead (Romero)
☐ Dawn of the Dead (Snyder)
☐ Day of the Dead
☐ Night of the Living Dead
☐ Re-Animator
☐ Return of the Living Dead
☐ Shaun of the Dead
☐ Zombi 2
☐ Zombieland

Lose all your work!   Vote or I'll eat your brains!

Mobility

On mobile devices, users often prefer something else besides the form controls that work well on non-mobile computers

Instead of checkboxes...
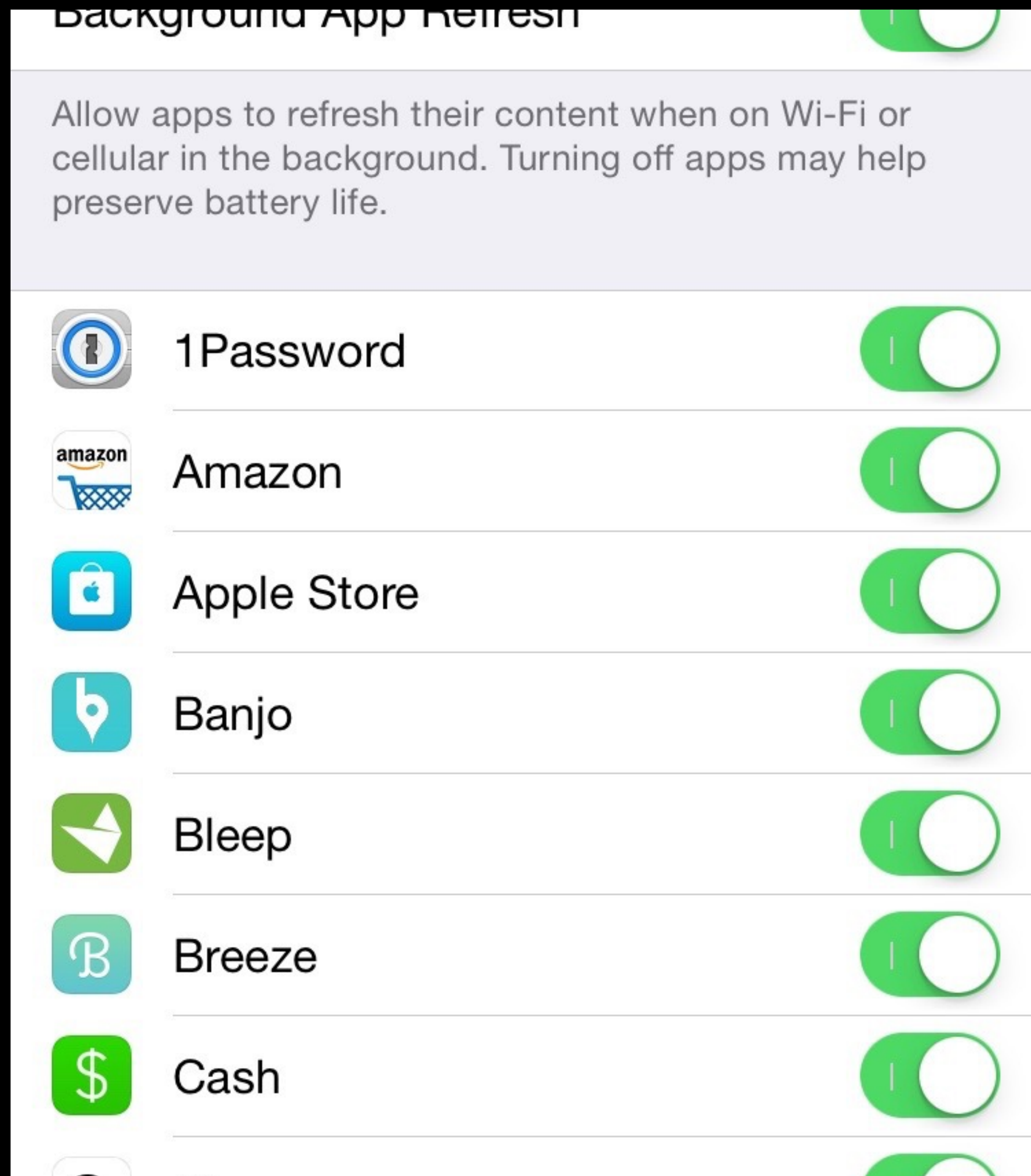
Switch

» Lets user turn option on or off
» Choice between 2 mutually exclusive options
» Can also replace radio buttons (2 choices, 1 pre-selected) & select lists (same)

Instead of radio buttons…

Segmented control or *radio group*

» Horizontal group of multiple segments that are closely related but mutually exclusive
» Each segment acts as a discrete button

Instead of select lists...
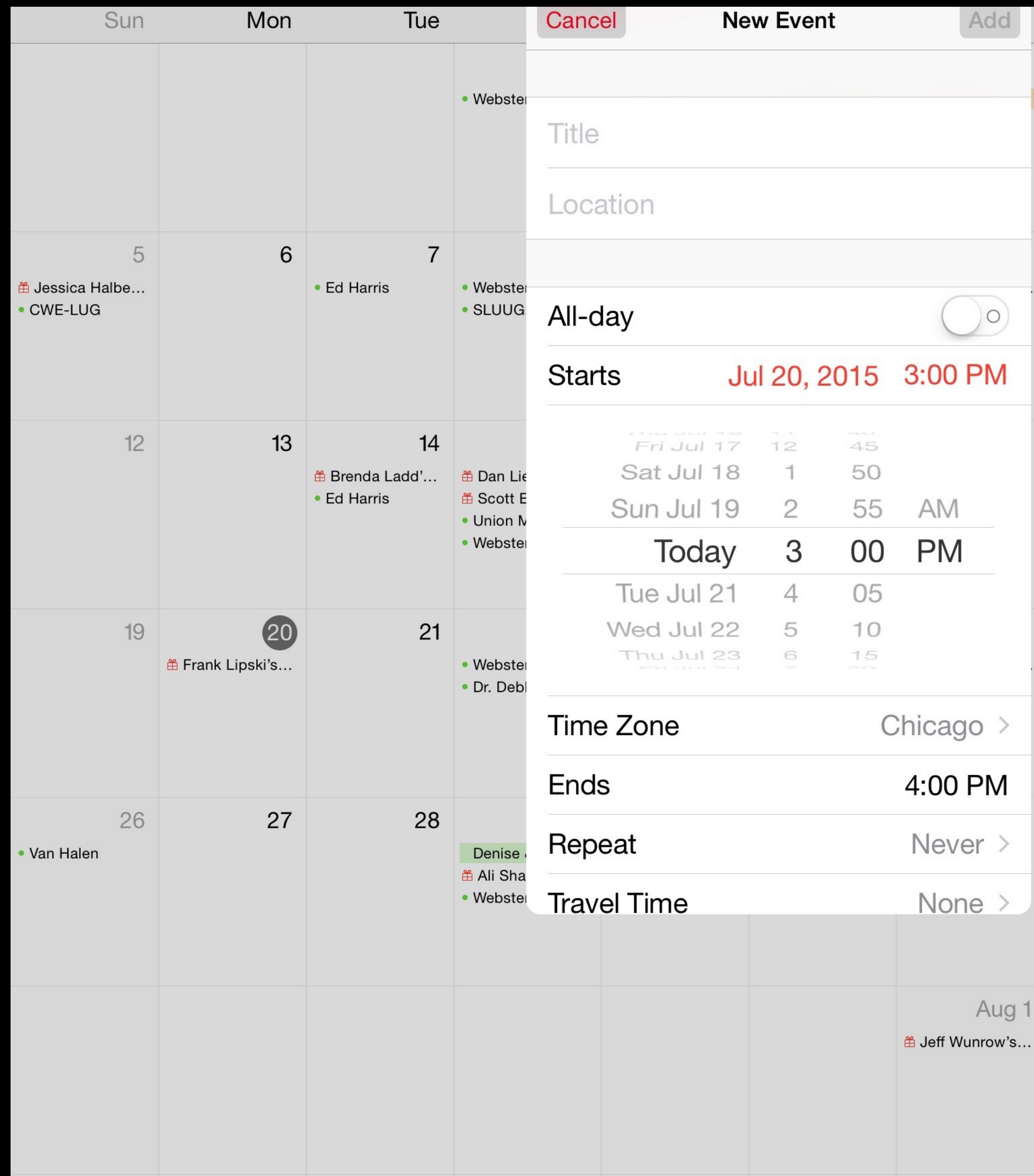
Picker

» Mobile equivalent of a select list
» Sometimes exactly what you need
» Think about whether you should really use it or not
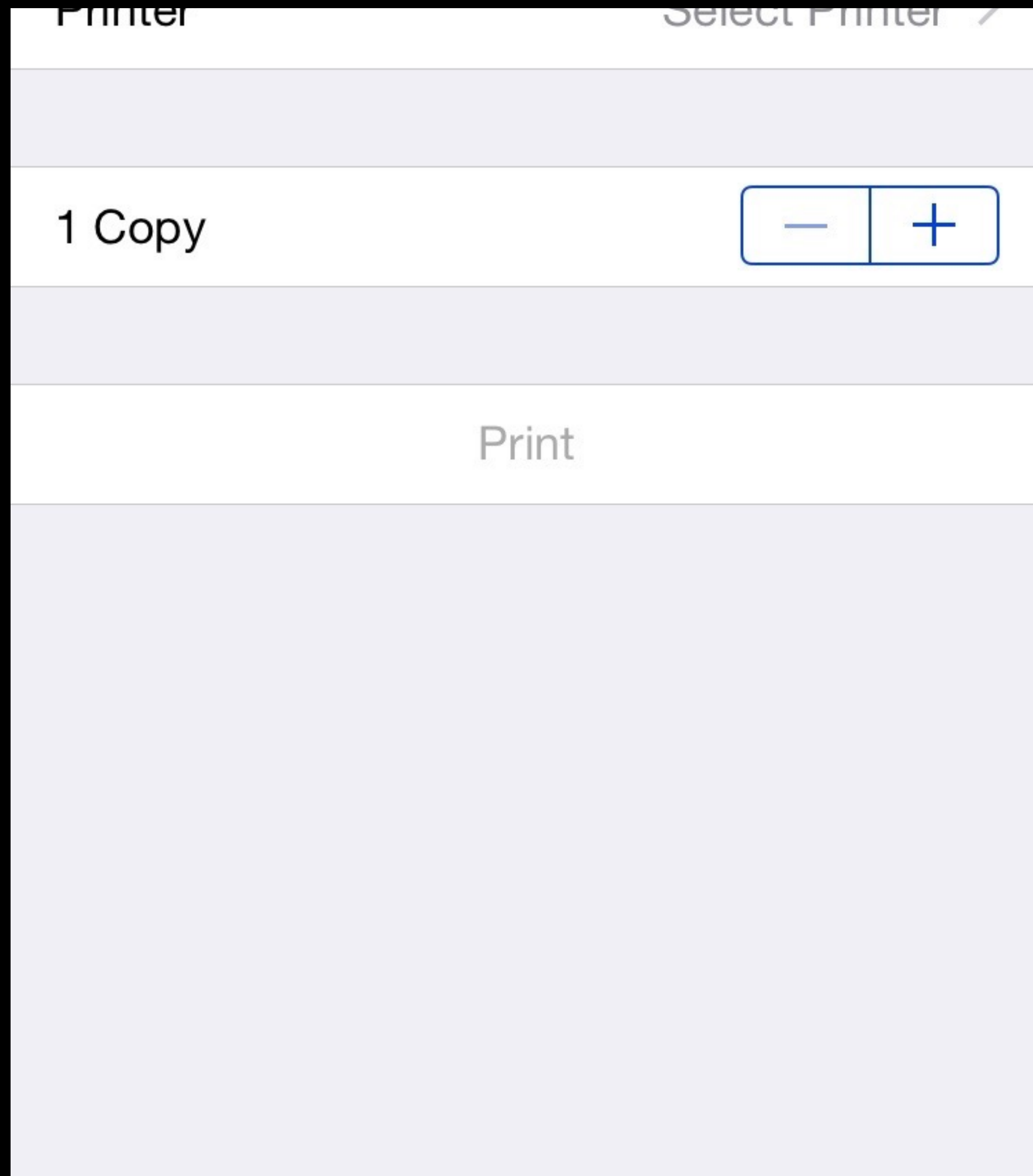
Stepper

» Increases or decreases value by a constant amount
» Good for making small adjustments
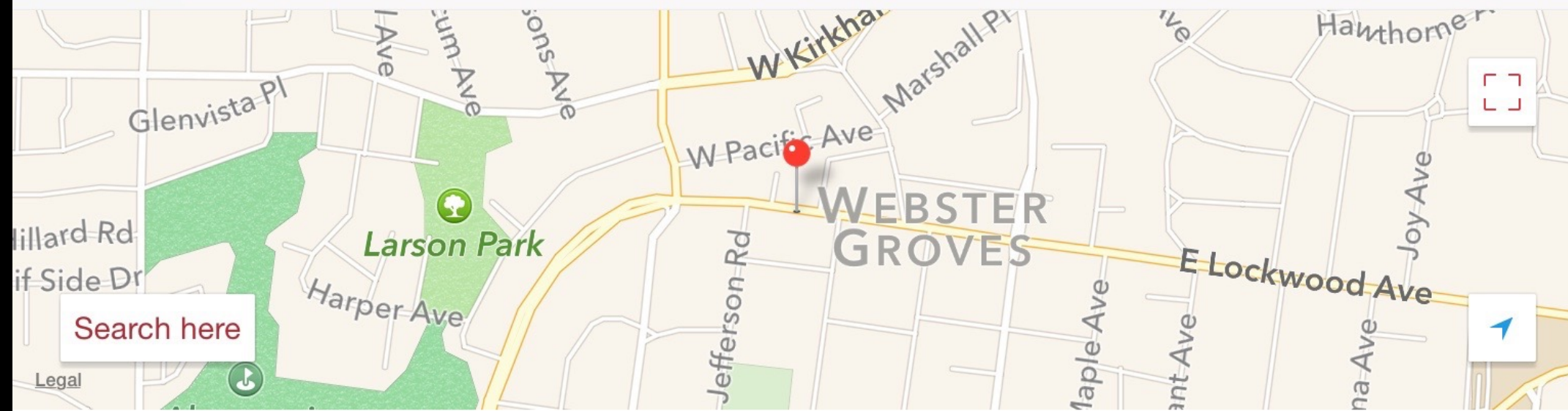
Robust
★★★★½ 355 reviews
Tapas / Small Plates $$
0.5 mi

6:45 PM   7:00 PM   7:15 PM

Wasabi Sushi Bar - Warson W…

Japanese $$
1.4 mi

6:45 PM   7:00 PM   7:15 PM

Acero
★★★★½ 488 reviews
Italian $$$
2.5 mi

6:30 PM   7:00 PM   7:30 PM

Maggiano's - St. Louis
★★★★½ 3,669 reviews
Italian $$
2.5 mi

6:45 PM   7:00 PM   7:15 PM

Boogaloo - St. Louis
★★★★☆ 282 reviews
Creole $$
2.3 mi

6:45 PM   7:00 PM   7:15 PM
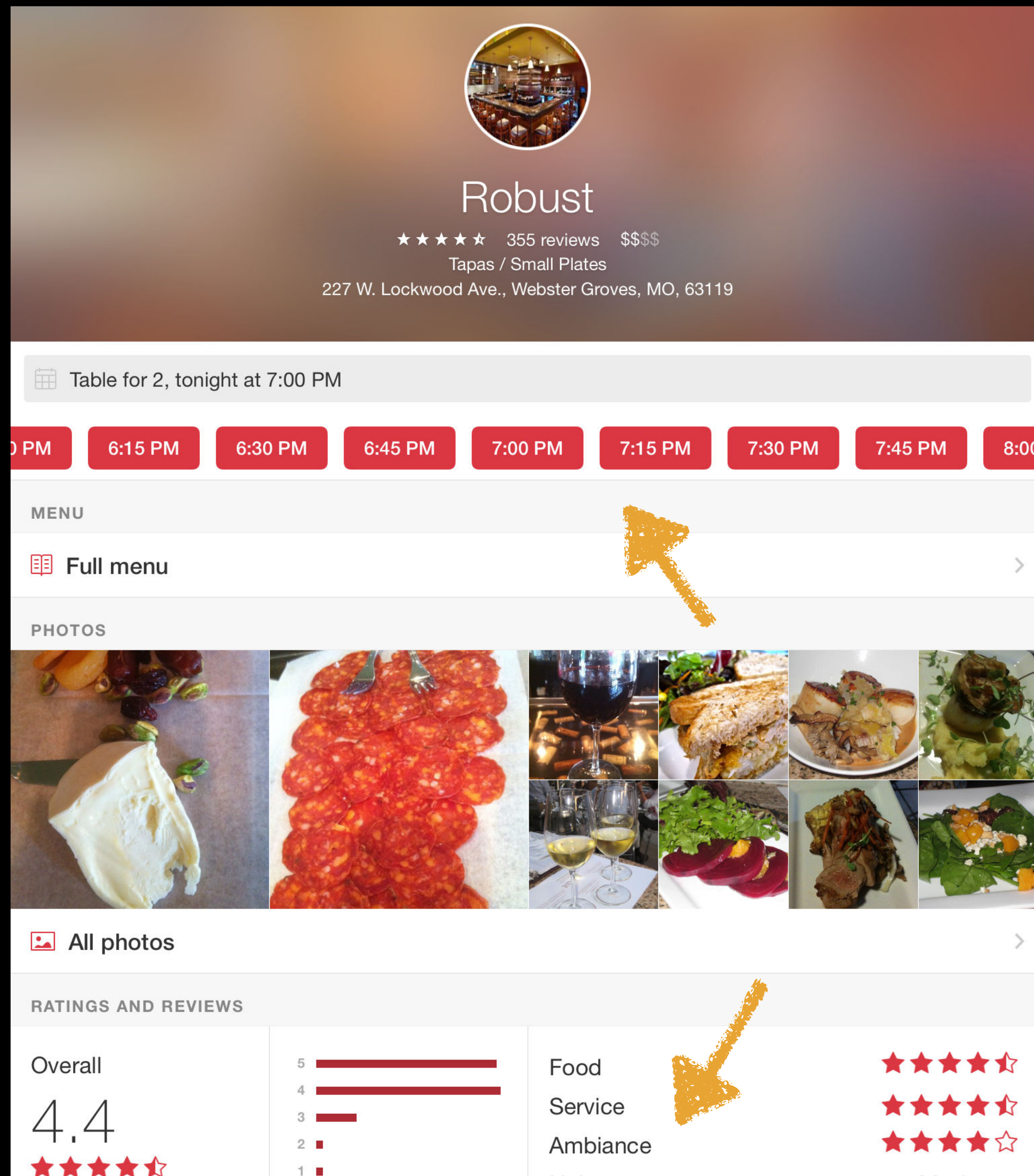
Buttons

» Expose options that would otherwise be hidden in a select list
» Selecting becomes a single tap instead of a multiples taps

Accessibility

For maximum accessibility:

» Use fieldsets
» Don't rearrange the order of fields using CSS; instead, let the order on screen follow the order in HTML

Tips

Custom form controls

Why custom form controls?

Since form elements are replaced, they all look different depending on the OS & the browser

In the past, Jans used to give up trying to style form controls

Now, we have a standard way to tell the rendering engine not to use a replaced element & instead style the control using the standard box model

```
<input type="radio">

input[type="radio"] {
  appearance: none;
  …
}
```

Clearly indicate what is required

Which of these 4 fields are required? All of them?

By the way: labels on the top *and* bottom are confusing

BECOME A MEMBER

🖨 Print

Join the ACLU of Connecticut

Membership type *

○ New Membership ○ Renewal

Membership Level

○ $35 ○ $50 ○ $75 ○ $100 ○ $200

Other Amount

Note: Contributions to the ACLU of Connecticut are NOT tax deductible for charitable purposes. The ACLU of Connecticut is composed of two organizations, The American Civil Liberties Union of Connecticut and the ACLU Foundation of Connecticut. Learn more...

Member Information

Name *

Prefix   First   Last   Suffix

Company

Address *

Street Address

Connecticut ⇕

City   State

ZIP Code

BECOME A MEMBER

🖨 Print

Join the ACLU of Connecticut

Membership type *

○ New Membership   ○ Renewal

Membership Level

○ $35   ○ $50   ○ $75   ○ $100   ○ $200

Other Amount

[   ]

Note: Contributions to the ACLU of Connecticut are NOT tax deductible for charitable purposes. The ACLU of Connecticut is composed of two organizations, The American Civil Liberties Union of Connecticut and the ACLU Foundation of Connecticut. Learn more…

Member Information

Name *

[   ] [   ] [   ] [   ]

Prefix   First   Last   Suffix

Company

[   ]

Address *

[   ]

Street Address

[   ] [Connecticut ⇅]

City   State

[   ]

ZIP Code

Which of these 4 fields are required? All of them?

By the way: labels on the top *and* bottom are confusing

Even today, HTML forms lack 2 things:

» Validation
» Business logic

Validation

How do developers ensure that a user actually entered
an email address?

Or a telephone number?

🇵🇱	22 123 45 67	🇳🇬	0704 123 4567
🇷🇺	8.812.234-56-78	🇰🇪	+254,700 123456
🇧🇷	(11) 1234-5678	🇵🇰	(091) 1234567
🇮🇹	06 12345678	🇯🇵	744 21 1234
🇩🇪	(030) 12345678	🇨🇳	010-12345678
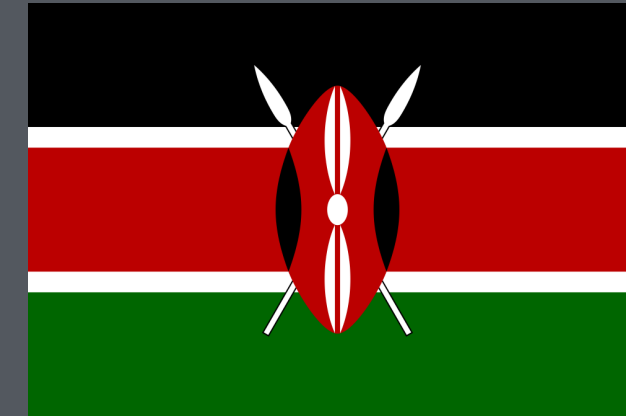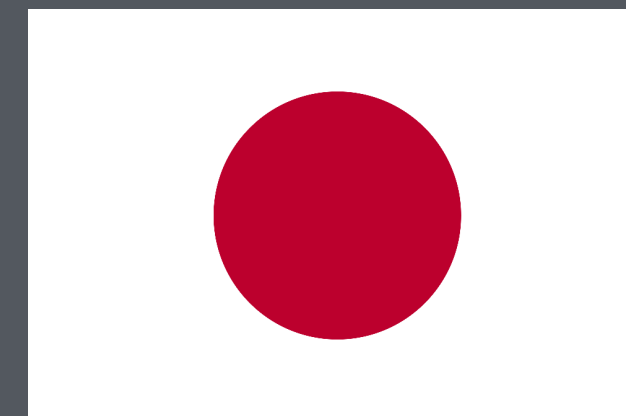
HTML5 includes some validation, but it's not very robust

Still have to rely on server-side programming

Business logic

HTML forms don't include good mechanisms to match business logic

DONATE ONLINE

Donation

Amount: choose... ?

Matching Funds: choose... ?

[Not sure about matching funds?](#)

Tribute: choose... ?

Is this gift made in honor of, or in memory of, a friend or loved one?

Designation: choose... ?

You may make a general donation to support our overall mission, or designate the gift for a more specific purpose.

Recurring Gift: choose... ?

Choose to make a one-time gift or a monthly, quarterly or annual gift. Recurring gift subscriptions start on the first day of the following month.

Donor Information

First Name: ?   Address: ?

Last Name: ?   City: ?

Card Number: ?   State: choose... ?

Expires: month... year... ?   ZIP: ?

Security Code: ?   Phone: ?

                       Email: ?

Joint Donor

Please provide partner/spouse name if making a joint donation.

First Name: Last Name:

Feedback

DONATE ONLINE

Donation

Amount: [choose...] (?)

Matching Funds: [Yes]
[Not sure about matching funds?](#)

Tribute: [choose...] (?)
Is this gift made in honor of, or in memory of, a friend or loved one?

Designation: [choose...] (?)
You may make a general donation to support our overall mission, or designate the gift for a more specific purpose.

Recurring Gift: [choose...] (?)
Choose to make a one-time gift or a monthly, quarterly or annual gift. Recurring gift subscriptions start on the first day of the following month.

Matching Gift Program

So that we can expect to receive and properly track your matching gift to us, please provide us with the following information.

Company Name: [_____] (?)
Address: [_____] (?)
City: [_____] (?)
State: [choose...] (?)
ZIP: [_____] (?)

Please fax or email your matching gift form to Sarah Sherwood at 314-371-0404, or sarah@habitatstl.org.

Donor Information

Thank you!

scott@granneman.com
www.granneman.com
ChainsawOnATireSwing.com
@scottgranneman

jans@websanity.com
websanity.com

Forms

Collecting Information in a Usable Way

R. Scott Granneman & Jans Carton

1.4

Changelog

2018-08-27 1.4: Created a new Mobility section with counter-examples to select lists, radio buttons, & checkboxes; added Custom Form Controls; changed theme to Granneman 1.4; fixed minor formatting issues
2015-03-31 1.3: Changed "grey" (UK spelling) to "gray" (US spelling); made it clearer that `<textarea>` labels should almost always be used; added quote from W3C re: `placeholder` != substitute for `label`

Changelog

2014-11-22 1.2: Split validation slide into 2; added slide on international telephone numbers; added slide combining `<label>` with `placeholder` attribute; added `multiple` attribute to Uploads
2014-08-03 1.1.1: Fixed `type` values; added details on `placeholder`; compatibility chart for `resize` & `placeholder`

Licensing of this work

Questions? Email scott@granneman.com