



# Technical Philosophy

Modern Front-End  
Development

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# The Plan

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We will look at:

- ❖ Some terminology.
- ❖ Some of the most important values in software development, especially in front-end development, and how we can strive to achieve them.
- ❖ Some examples of things we can learn through failure and some of my favorite hash tags. #UX #UXFail
- ❖ An embarrassingly incomplete project in progress—the good, the bad, and possible improvements.



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# What do I mean by “technical philosophy”?

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Software development is not just about *what* we do or *how* we do it, but about *what we value*.

Technical philosophy is what we value—*why* we do what we do.

It is informed by business objectives, but not necessarily limited by them.

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## What makes modern front end development “modern” and “front-end”?

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- ❖ Modern front-end development differs significantly from what it was just a few years ago, especially with regard to tooling, workflow, and emphasis on user experience and testing.
- ❖ As front-end development is concerned with the elements of software that are the closest to users, it is *not* just about programming—it also involves various kinds of design.

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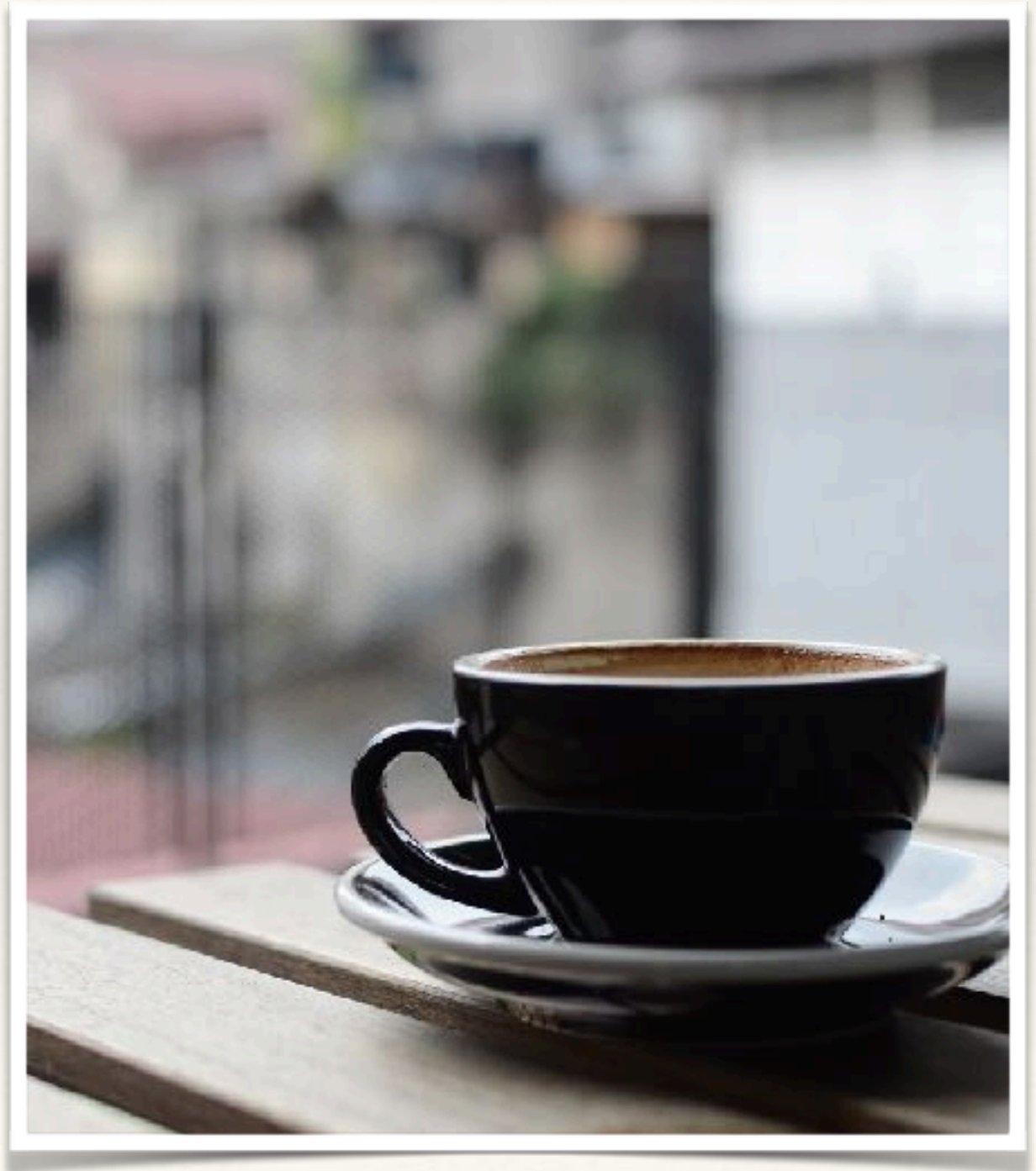
# Values

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Some common values in software development:

- ❖ user experience
- ❖ quality
- ❖ productivity
- ❖ efficiency
- ❖ security
- ❖ modularity
- ❖ reusability
- ❖ separation of concerns
- ❖ consistency (e.g., functionality, design, message, or branding)
- ❖ profitability

There is, of course, some overlap across different values!





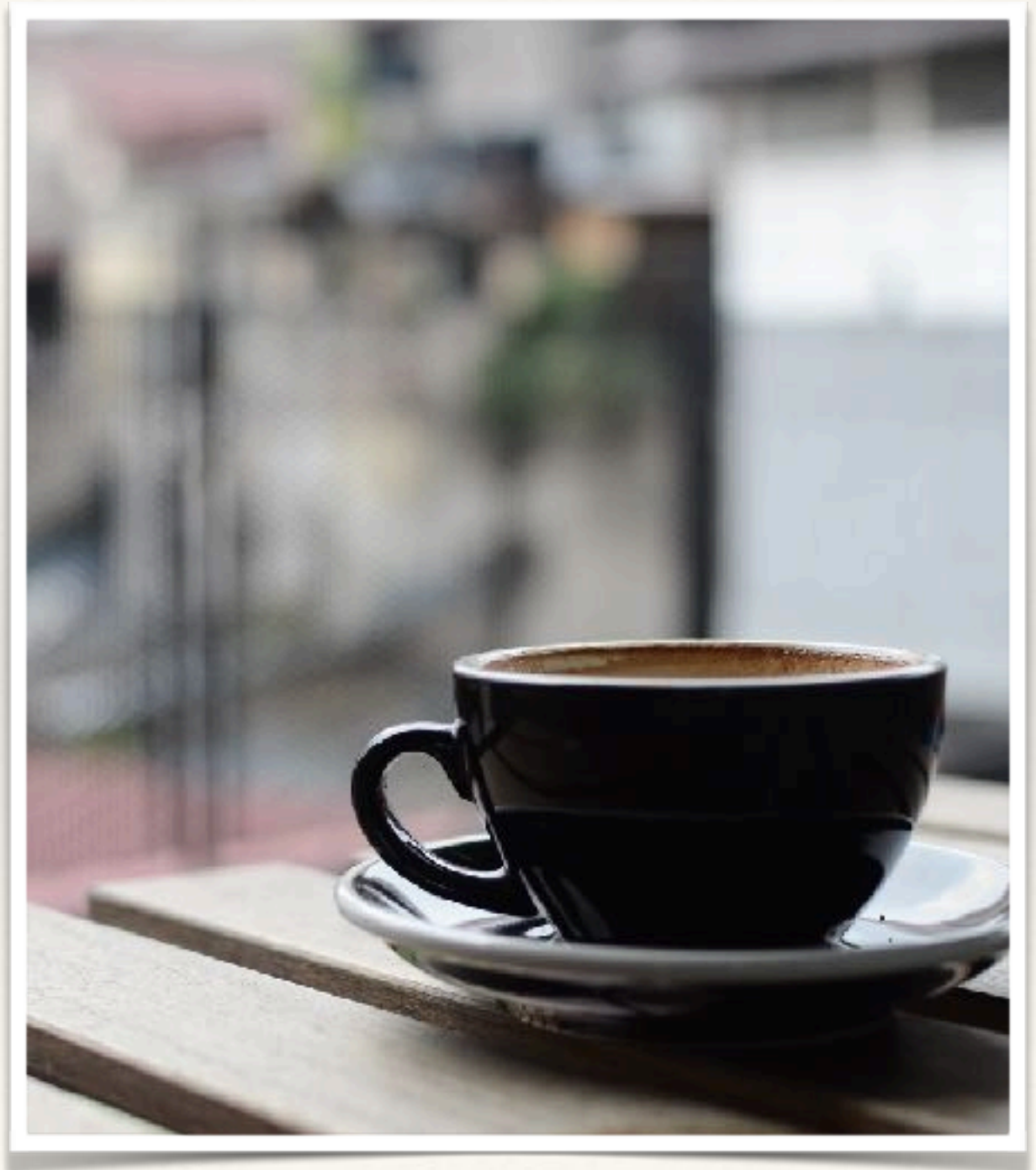
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# Values

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In modern front-end development, the same values are common, but priorities do tend to differ somewhat from those in back-end and middleware development.


1. user experience
2. user experience
3. user experience
4. user experience
5. user experience




Brian Sexton on Twitter: "Ultim x"

Twitter, Inc. [US] | <https://twitter.com/bdsexton/status/445086534115422208>





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Ultimately, everything we do as software developers culminates in user experience. Not just UI and ID. Services. Data. Everything. #UX

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
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**Brian Sexton** @bdsexton

Multidisciplinary designer and software developer. Thinker. Writer. Artist. Student of life. Champion of great experiences and personal hygiene. Comic. Runner.

 Joined January 2009

I definitely agree with this guy!



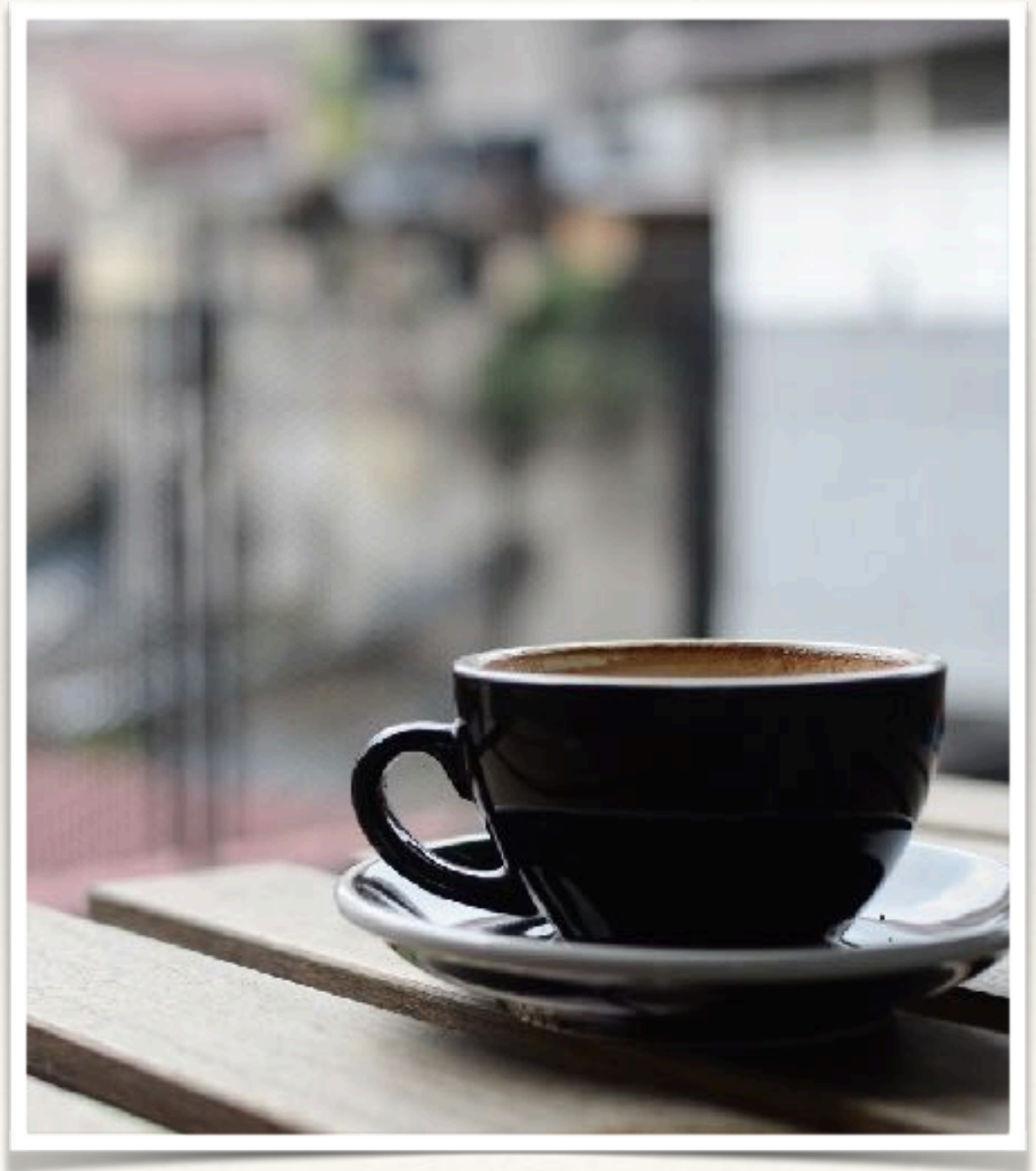
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# Values

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OK, OK... let's consider those things from earlier.

- ❖ tooling
- ❖ workflow
- ❖ user experience - *including responsiveness and accessibility*
- ❖ testing





“I think we’re seeing the emphasis shift from  
valuing trivia to valuing tools.”

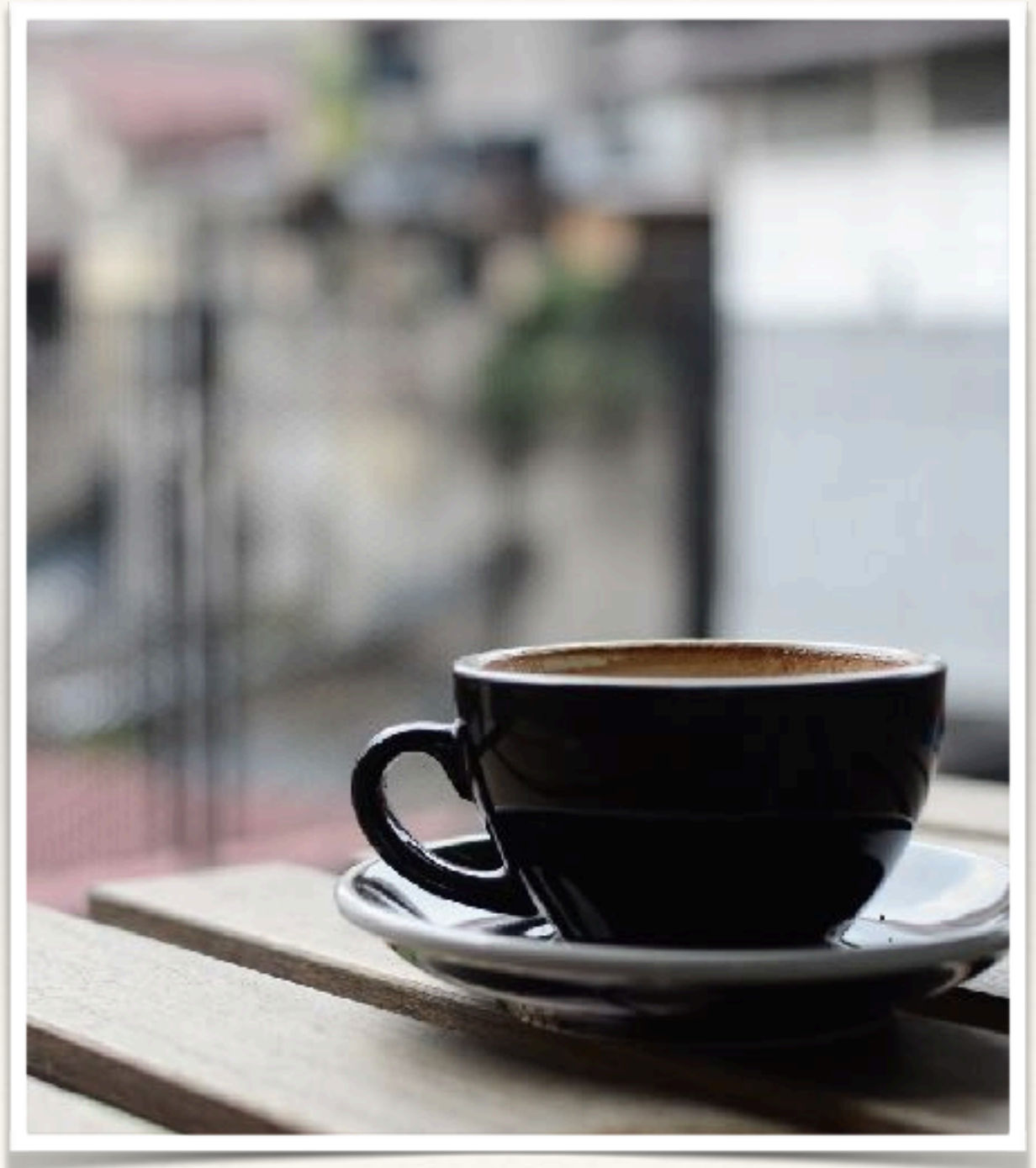
– *Rebecca Murphey* \*

\* From “**A Baseline for Front-End Developers**”, <http://rmurphey.com/blog/2012/04/12/a-baseline-for-front-end-developers>

# Tooling (and Related Resources)

Modern front-end development tooling includes:

- ❖ better text editors and IDEs
- ❖ Node.js
- ❖ task runners (e.g. Grunt and Gulp)
- ❖ processors (e.g., LESS, SASS, uglify, cssmin, and htmlmin)
- ❖ HTML, CSS, and JavaScript frameworks (e.g., Bootstrap and AngularJS)
- ❖ cross-platform development kits (e.g., Electron and PhoneGap / ~~Rancher~~ Apache Cordova)



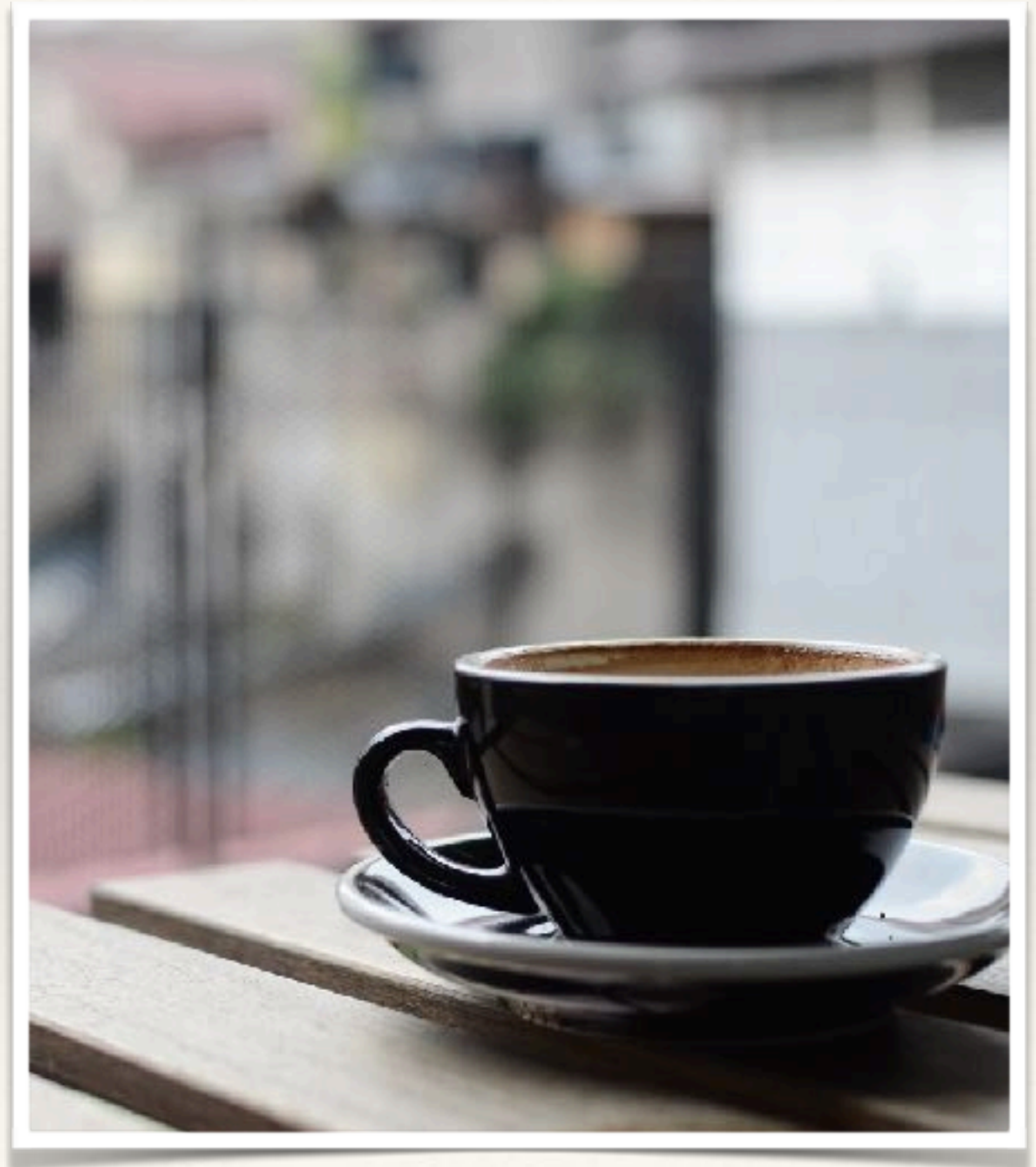
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# Workflow

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A modern front-end development workflow may include:

- ❖ building?!
- ❖ processing (e.g., CSS extension, JavaScript minification, and image resizing)





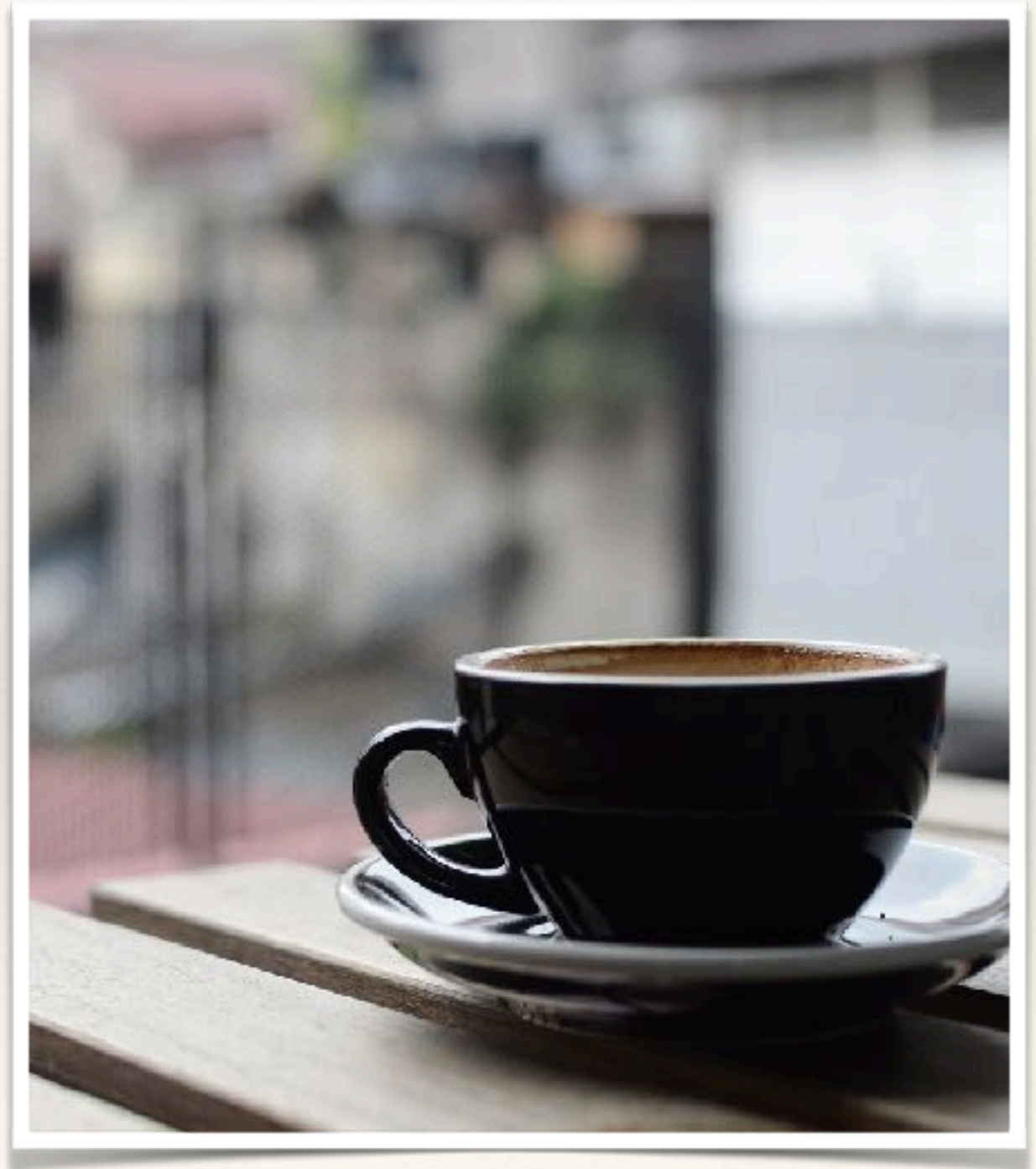
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# User Experience

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This really is the most important thing! Good UX is a worthy principle in its own right, but it is also good for business.

- ❖ Happy customers are more likely to be repeat customers.
- ❖ Passionate customers are more likely to advocate products and services—*free advertising!*



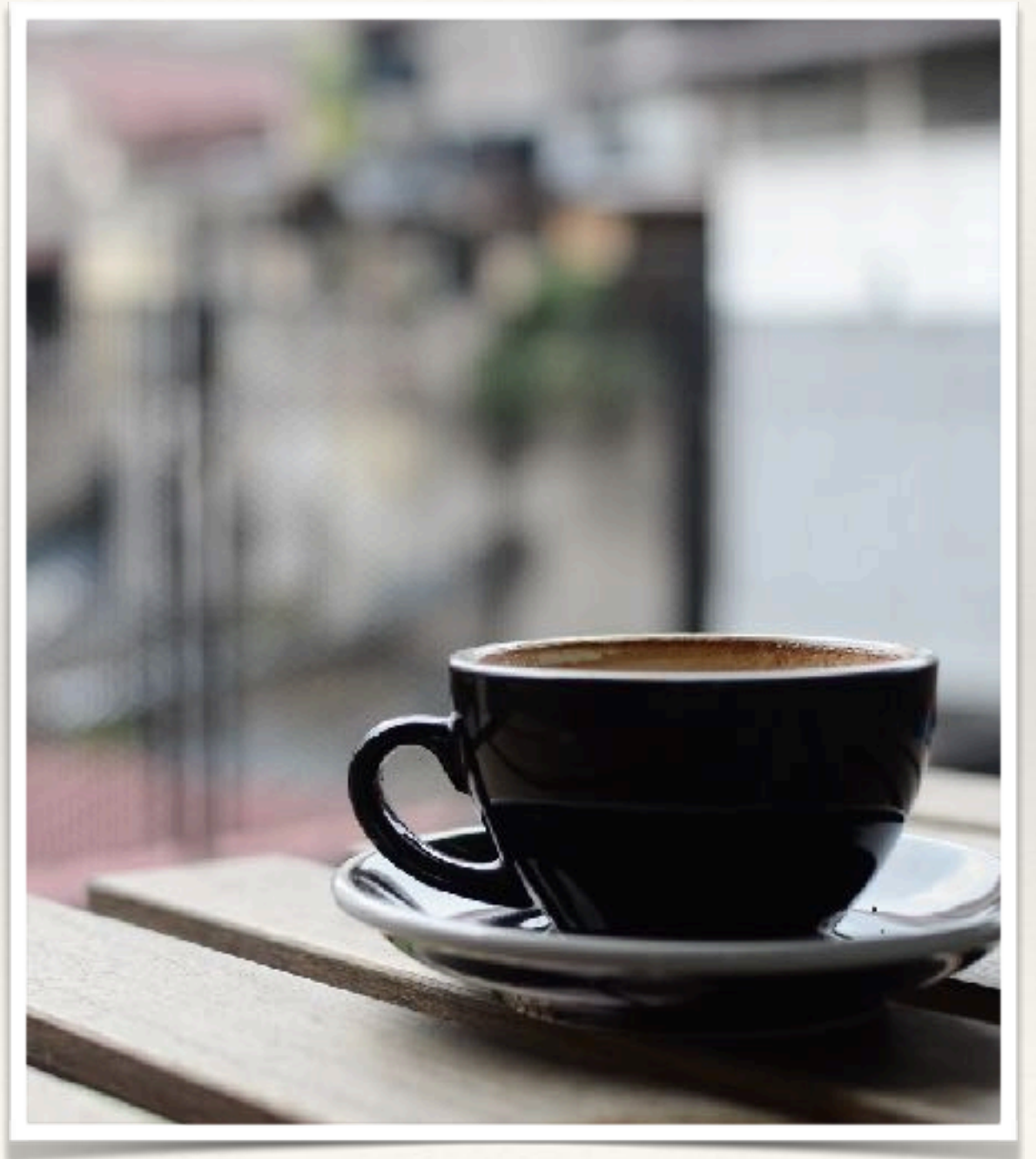
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# User Experience

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Good user experience is about doing things well, but also about paying attention to what has not been or is not being done well.

- ❖ #UX
- ❖ #UXFail



[https://www.childsup.ca.gov/payments/statedisbursementunit\(sdu\).aspx](https://www.childsup.ca.gov/payments/statedisbursementunit(sdu).aspx)

- [Contact My Local Child Support Agency](#)
- [Contact DCSS](#)
- [Protect Your Privacy/Security](#)

## ADDITIONAL LINKS

- [Child Support Handbook](#)
- [Employer Handbook](#)
- [Administrative Review Process](#)
- [Compromise of Arrears Program](#)
- [Parents Making Support Payments](#)
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## PAYMENT INFORMATION

**\*Payment Amount (USD):** **\*Paid With:** ☐ Bank Account ☒ Credit/Debit Card

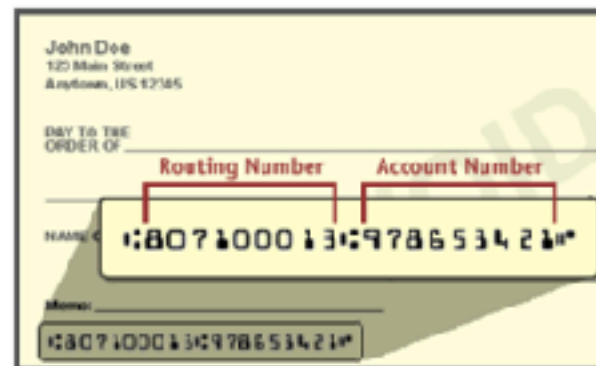
Complete all payment information below:

**Frequency:** **Pay On/Start Date:** **End Date:** **Account Type:** **Routing Number:** **Bank Account Number:** **Confirm Account Number:** **Card Type:** **Cardholder First Name:** **Cardholder Last Name:** **Card Account Number:** **Card Verification Number:** **Expiration Month:** **Expiration Year:** 

## Billing Address

☐ Check to use address in user profile as billing address.

Or enter a new address below:

**Address Line 1:** **Address Line 2:** **City:** 





## Credit/Debit/Prepaid Card



Card Number:

6011-1111-1111-1117

Security Code *(optional)*

Name on card:

Expiration:

01 - January



2016

☐ Use as **ExpressCheckout** for future purchases. ☐ Make this the Alternate payment Method for my account

PayPal



Gift Card



Checking Account

## Automatic Renewal Service Agreement

Your purchase includes enrollment in our automatic renewal service. This keeps your products up and running by automatically charging the then-current renewal fees to your payment method on file just before they're set to expire, with no further action on your part. You may cancel this service at any time by turning off the auto-renewal feature in your Go Daddy account.

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## ← Delete activity by



### Delete by topic or product

Search by keyword or filter by product or topic. Use the search options menu, to delete activity by topic or product.

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### Delete by date

All time



After



All products



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### Before you delete

Your activity can make Google services more useful to you, like better commute options in Maps and quicker results in Search.

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[OK](#)



**accountsd wants to use the "Local Items" keychain.**

Please enter the keychain password.

Password:



Cancel

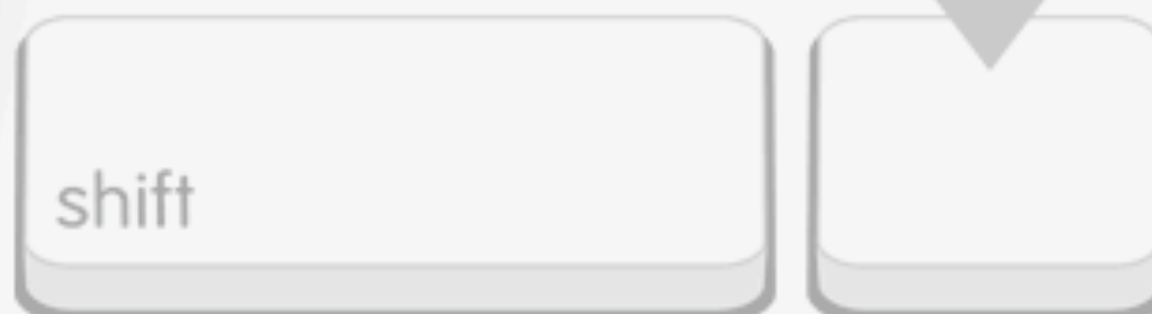
OK



## Identifying Your Keyboard

**Press the key immediately to the right of the Shift key on the left side of the keyboard that can't be identified.**

Press the key only once and do not hold down the key for a long time. When the key is recognized, the next panel will appear.



Identifying your keyboard...

## Keyboard Setup Assistant



### Your keyboard cannot be identified.

You have pressed a key on your Apple keyboard.  
Please press the keys on the keyboard that can't be identified.

Skip

OK


shift



Identifying your keyboard...



## Manage Your Amazon.com Store Card or Amazon Prime Store Card Account Online

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### Log into Your Account

User ID

Case-sensitive, may differ from your Amazon.com User ID

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☐ Remember User ID



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### Log into Your Account

⚠ This is a required field.

User ID

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Password

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Enjoy 24/7 conveniences of online account management

- Learn how to earn 5% back with the Amazon Prime Store Card
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- Visit [www.amazon.com/storecard](http://www.amazon.com/storecard) for more information







Dear Brian,

Recently, we sent you an invitation to complete a Guest Satisfaction Survey regarding your stay at Quality Inn & Suites in La Vergne, where you checked out on August 11, 2015.

If you would like to share your feedback about your stay, please click on the web address below. If that does not work, please copy and paste the entire web address into the address field of your browser. You will also have an option to post a review for this hotel on choicehotels .com.

<http://survey.medallia.com/?et56cnk97xdwf8ckvwhmht>

Your feedback is very important to us, and we look forward to hearing about your stay with us.

Michael Thompson  
Director of Customer Care  
Quality



Please do not 'Reply' directly to this invitation.

Technical assistance: Should you need help accessing or completing this survey, please visit: [surveysupport.medallia.com](http://surveysupport.medallia.com)

To unsubscribe: We rely on feedback from guests to ensure that your hotel stay meets and exceeds your expectations. If, however, you prefer not to receive a survey invitation in the future, you may unsubscribe by clicking this link:

<http://survey.medallia.com/?et56cnk97xdwf8ckvwhmht&reject=yes>

For all other requests, please visit <http://www.choicehotels.com>



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# Accessibility

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Accessibility is part of user experience, but it deserves its own mention.

*A Personal Accessibility Pet Peeve:  
Conveying information solely or  
primarily through color.*



“Colour (color) blindness (colour vision deficiency, or CVD) affects approximately 1 in 12 men (8%) and 1 in 200 women in the world.”

– *Colour Blind Awareness* \*

\* From “**Colour Blind Awareness**”, <http://www.colourblindawareness.org/colour-blindness/>

# Testing

Testing is kind of important!

- ❖ code-quality checking during development
- ❖ manual in-browser - change, save, maybe upload, test
- ❖ browser dev tools - standard and add-on (e.g., Web Developer Toolbar, Firebug, and Postman)
- ❖ browser console - JavaScript jiggery-pokery and even custom commands
- ❖ system console
- ❖ automated testing - via local task-runners, on integration servers, or both

Some tools span contexts. E.g., Browsersync can be run from the system console or from a task runner such as Grunt and it offers an in-browser interface.



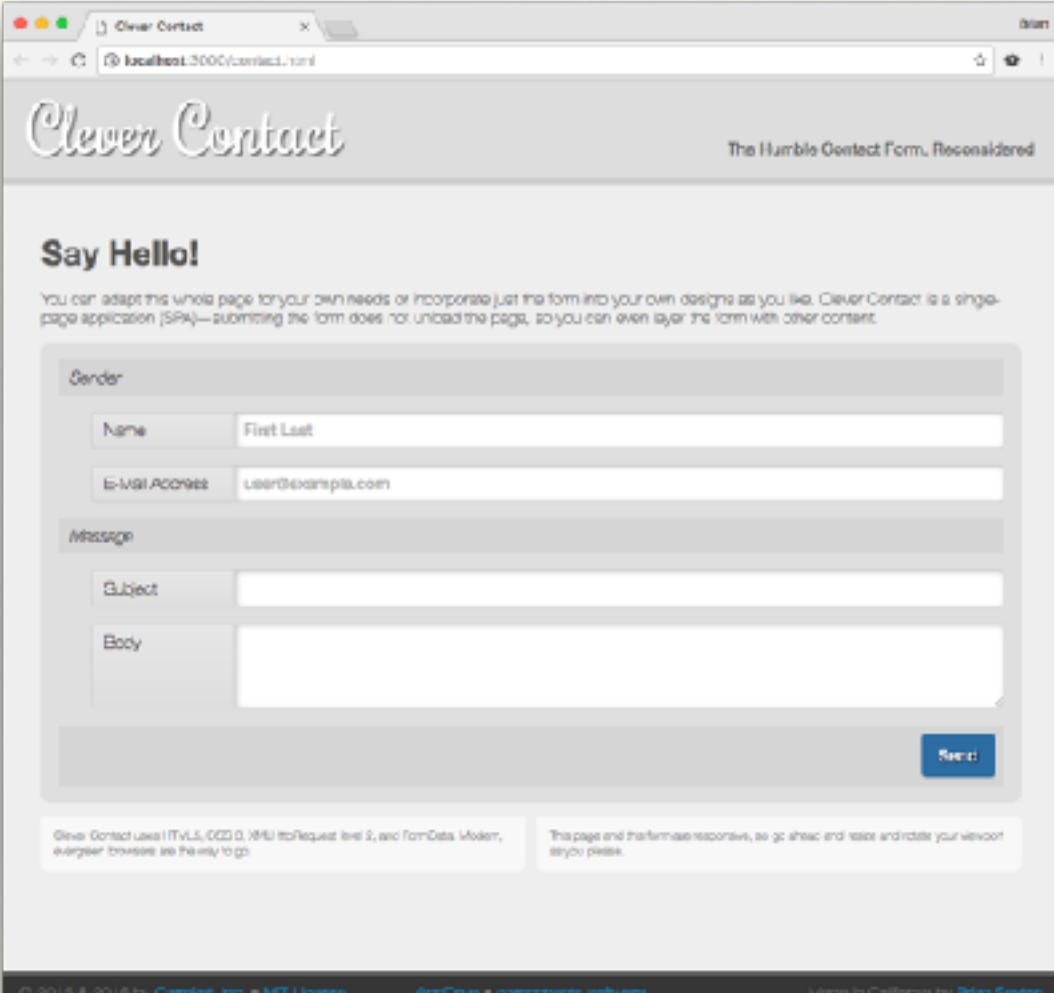


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# Clever Contact

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The humble contact form is something that pretty much every Web site can use and it serves as a reminder that we can often benefit from taking a new look at an old problem.



The screenshot shows a web browser window titled "Clever Contact" with the address bar displaying "localhost:3000/contact.html". The page has a light gray header with the "Clever Contact" logo on the left and the tagline "The Humble Contact Form, Reconsidered" on the right. Below the header, the main content area is titled "Say Hello!" and includes a subtext explaining that the form is a single-page application (SPA) that doesn't reload the page upon submission. The form itself is divided into two main sections: "Sender" and "Message". The "Sender" section contains a "Name" field with "First Last" as placeholder text and an "E-Mail Address" field with "user@example.com". The "Message" section contains a "Subject" field and a larger "Body" text area. A blue "Send" button is positioned at the bottom right of the form. Below the form, there are two small informational boxes: one stating the technologies used (HTML5, CSS3, XMLHttpRequest level 2, and FormData Modern) and another noting that the page is responsive. The footer of the page contains copyright information for 2015 & 2016 by "Carnegie, Inc." under a MIT License, mentions "AppCrave" and "components.software", and credits "Wicks in California" by "Brian Saxon".

“If it ain’t broke, don’t fix it.”

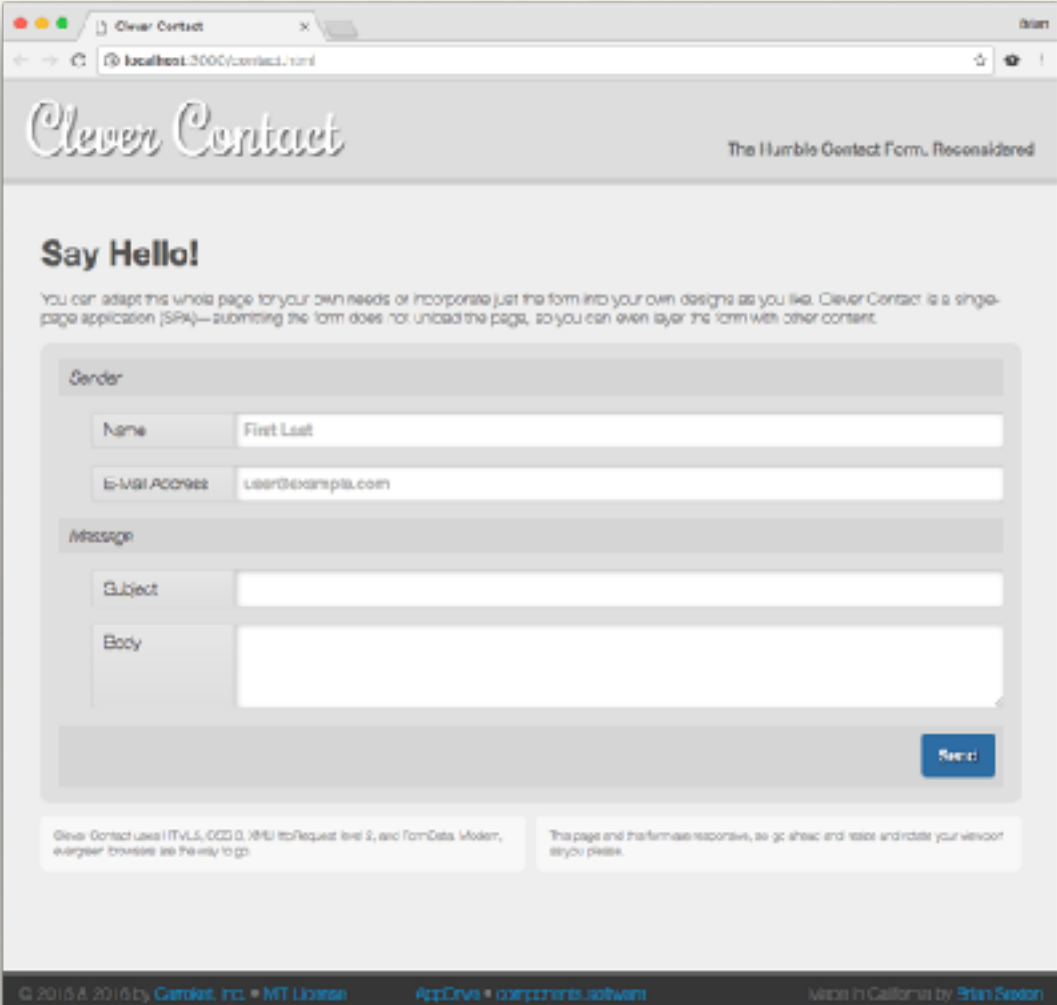
– *No Front-End Developer Ever*

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# Clever Contact

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*Let's look at it now...*



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# Conclusion

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In modern front-end development, is not enough for software to meet functional requirements or satisfy business objectives.

It should do both of those things, but it should do so in the ways that best represent the technical philosophy of the publisher.

Ideally, that should mean delivering software that users *love to use*.

- ❖ easiest to use
- ❖ best organized / most obvious
- ❖ most efficient
- ❖ fastest
- ❖ most secure
- ❖ most pleasing - look, feel, etc.