

# The [No-Code] Stack

*How Non-Coders Can Build Apps  
Like The Pros*

# The New Frontier

Non-Coders  $\cong$  Full Stack Developers

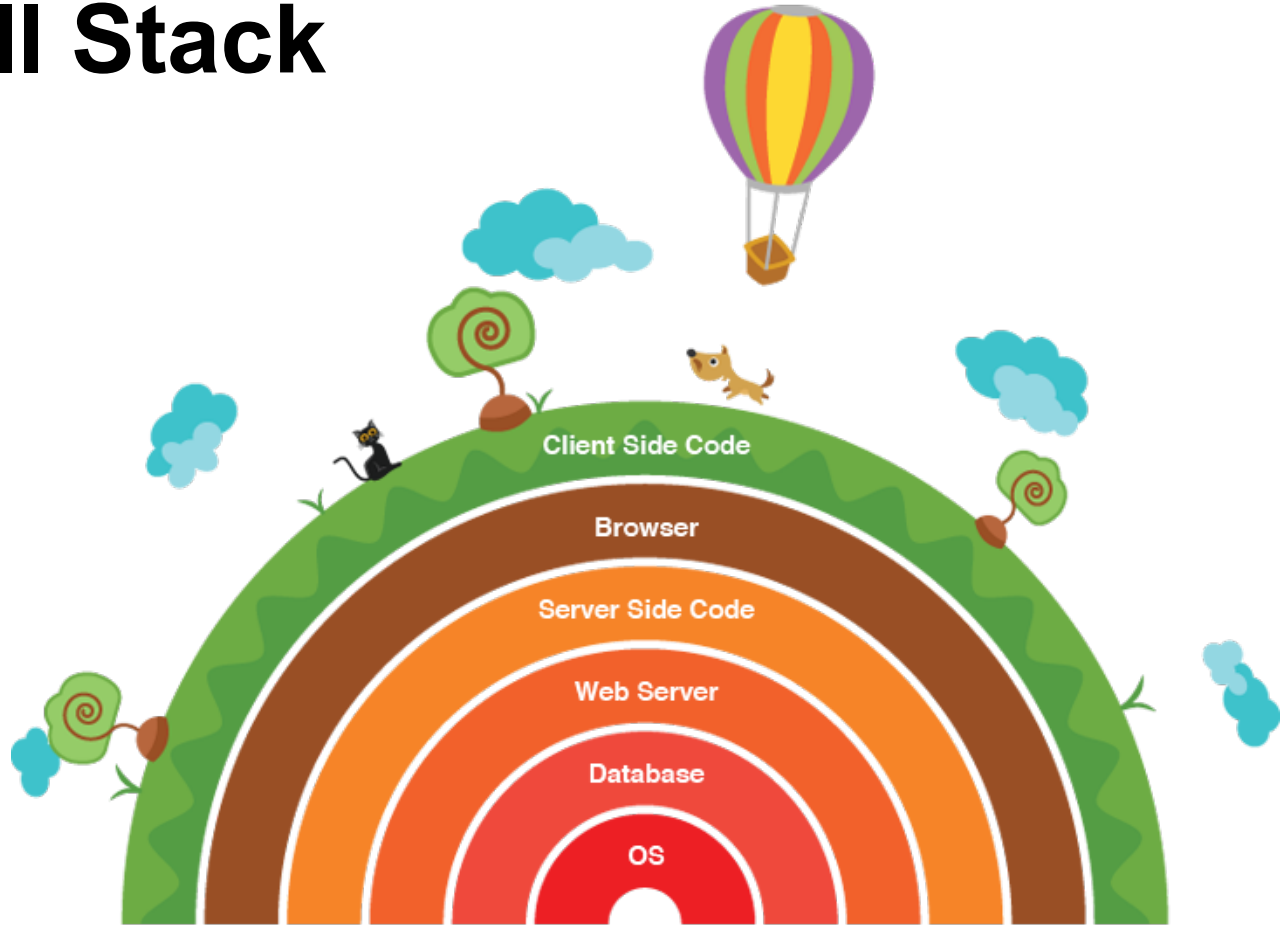
“You can count on a full-stack web developer to design, code, implement and maintain a fully functional modern interactive website on his/her own (not just a static website with a few pages).”

- [Edward Chung](#)

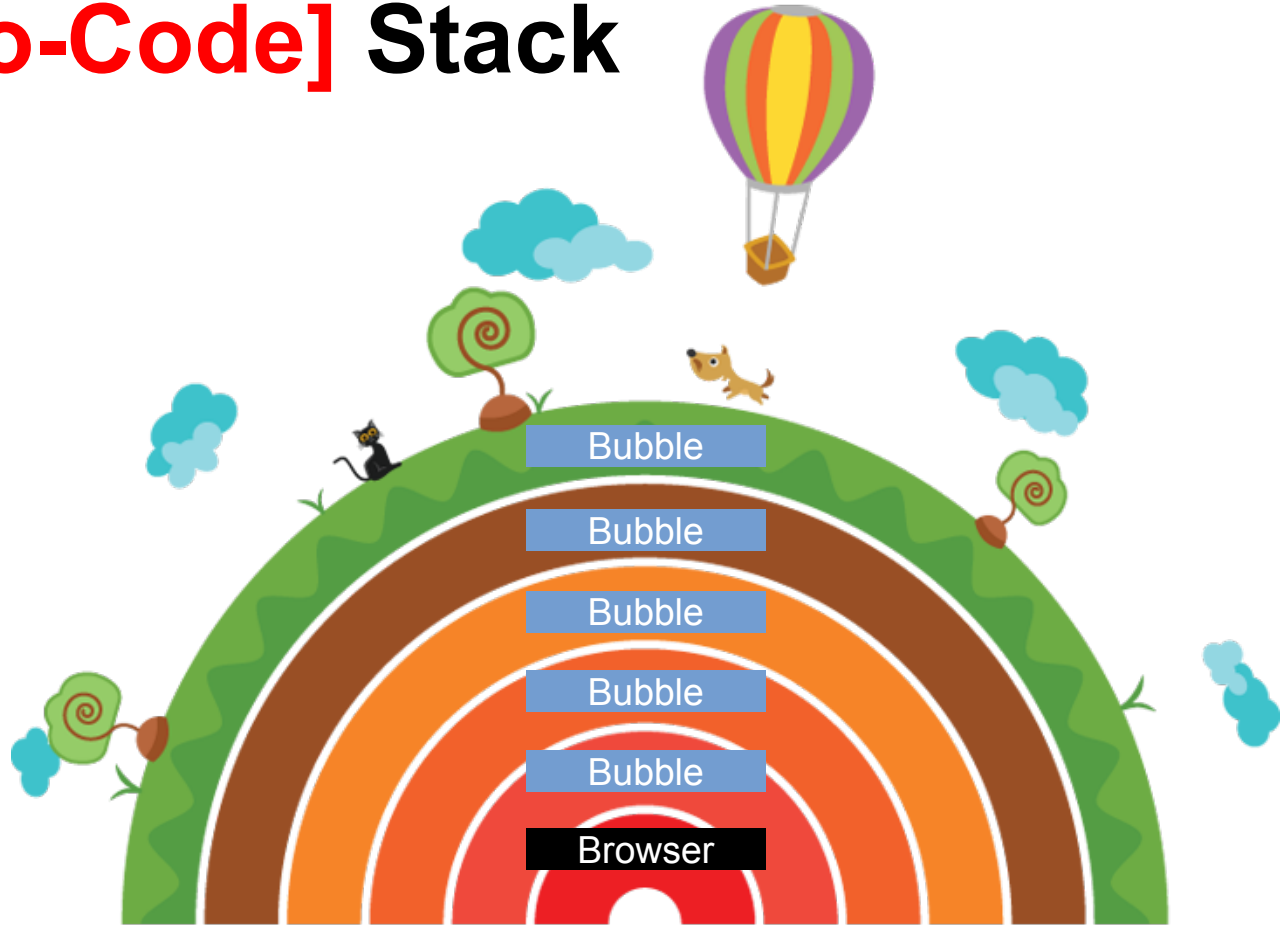
*“You can count on a **[no-code]** stack developer to design, ~~code~~, implement and maintain a fully functional modern interactive website on his/her own (not just a static website with a few pages).”*

- Edward Chung, *revised*

# The Full Stack



# The [No-Code] Stack



# The Full Stack Layers

- Server, Network, and Hosting Environment
- Data Modeling
- Business Logic
- API layer / Action Layer / MVC
- User Interface
- User Experience
- Understanding the customer and the business need

# The Full Stack Layers

- **Server, Network, and Hosting Environment**
  - This involves understanding what can break and why, taking no resource for granted.
  - Appropriate use of the file system, cloud storage, network resources, and an understanding of data redundancy and availability is necessary.
  - How does the application scale given the hardware constraints?
  - Full stack developers can work side by side with DevOps. The system should provide useful error messages and logging capabilities. DevOps will see the messages before you will, so make them count.



# The [No-Code] Stack Layers

- Server, Network, and Hosting Environment **with Bubble**
  - *Hosting: Bubble apps are fully hosted on our platform -- you don't need to worry about maintaining and scaling your app*
  - *Domain names: host on ours, or connect your own. Your users won't even know your app is built on Bubble*
  - *Version control: Test changes safely on a private version, then deploy them to your users with one click*

# The Full Stack Layers

- Data Modeling
  - If the data model is flawed, the business logic and higher layers start to need strange (ugly) code to compensate for corner cases the data model doesn't cover.
  - Full stack developers know how to create a reasonably normalized relational model, complete with foreign keys, indexes, views, lookup tables, etc.
  - Full stack developers are familiar with the concept of non-relational data stores and understand where they shine over relational data stores.

# The [No-Code] Stack Layers

- Data Modeling **with Bubble**
  - *Data: define your own data structures and relationships*
  - *Real-time updates: all data actions in Bubble are real-time. Your users never have to refresh the page*
  - *User-generated content: ability for your users to upload data, images, and files*
  - *Search: find, filter, and sort your data in real-time*
  - *Export: export user generated content to Excel (as CSV)*

# The Full Stack Layers

- Business Logic
  - The heart of the value the application provides.
  - Solid object oriented skills are needed here.
  - Frameworks might be needed here as well.

# The [No-Code] Stack Layers

- Business Logic with Bubble
  - *Workflow-based programming: you can define exactly what happens, action by action*
  - *Logic: you can define your own logic: if the user clicks on this button and he's not logged in, do this, otherwise, do that. All without code*
  - *User management: sign up, login, save data to user, use social network authentication (Facebook, LinkedIn, Google, etc.)*

# The Full Stack Layers

- API layer / Action Layer / MVC
  - How the outside world operates against the business logic and data model.
  - Frameworks at this level should be used heavily.
  - Full stack developers have the ability to write clear, consistent, simple to use interfaces.

# The [No-Code] Stack Layers

- API layer / Action Layer / MVC **with Bubble**
  - *API connectivity: Bubble can connect to other apps via APIs; import data from all over the web! We already offer Google Places, iTunes, Meetup, etc.*
  - *Extensibility: seamlessly add 3rd party plugins (Google analytics, Facebook Like button, etc) to your app*
  - *MailChimp: auto-subscribe users to your mailing lists*
  - *Payment: Bubble integrates with Stripe and supports subscriptions, deferred payments (for crowdfunding-style apps), and user-to-user transactions including commission fees. International currencies supported*

# The Full Stack Layers

- User Interface

- Full stack developers: a) understand how to create a readable layout, or b) acknowledge they need help from artists and graphic designers. Either way, implementing a good visual design is key.
- Can include mastery of HTML5 / CSS.
- JavaScript is the up and coming language of the future and lots of exciting work is being done in the JavaScript world (node, backbone, knockout...)



# The [No-Code] Stack Layers

- User Interface **with Bubble**
  - *Full control: modify the interface in our editor*
  - *Forget HTML and CSS: absolutely no code is needed to customize the page*
  - *Elements: use images, icon, buttons, maps, videos, calendars, text input, date pickers, sliders, and much more...*
  - *Fonts & Icons: all Google Fonts are included, and Bubble uses popular icon libraries like Ionic or FontAwesome*

# The Full Stack Layers

- User Experience

- Full stack developers appreciate that users just want things to work.
- A good system doesn't give its users carpal tunnel syndrome or sore eyes. A full stack developer can step back and look at a process that needs 8 clicks and 3 steps, and get it down to one click.
- Full stack developers write useful error messages. If something breaks, be apologetic about it. Sometimes programmers inadvertently write error messages that can make people feel stupid.

# The [No-Code] Stack Layers

- User Experience **with Bubble**
  - *Dynamic content: text and images can be fully dynamic using user generated data*
  - *Conditionality: change the font, color or even the visibility of an element based on what's going on in the app*
  - *Mobile: Bubble apps can be submitted to the App Store and Google Play*

# The Full Stack Layers

- Understanding the customer and the business need
  - Now we are blurring into the line of architect, but that is too much of a hands off role.
  - Full stack developers have a grasp of what is going on in the field when the customer uses the software. They also have a grasp of the business.

# The [No-Code] Stack Layers

- Understanding the customer and the business need
  - *Bubble is completely free to build with. Subscribe only when your app has traffic.*
    - *Stay lean as you iterate through your MVP*

**No coding experience?**

***No problem.***



Bubble empowers you - so stop sketching on the back of napkins and start building.



*Learn how to build applications in hours - not months - using [Bubble](#)*

[BuildDontCode.com](https://BuildDontCode.com)

