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A Guide on How to

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# TALK TO A DEVELOPER

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(or other technical people you work with)

# Introduction

There are only 18.2 million software developers in the world - that means only .2% of people speak “developer.” For businesses, that gap leads to communication issues errors and inhibited productivity. That’s why we created this technical dictionary on how to speak developer. We hope to enable a more productive work environment by increasing communication bandwidth and closing the gap between developers and non-developers.

In this E-Book we'll take you through all the essential tech terms, from the basics, to languages and frameworks, all the way through the tools you need to know. Let's get started.



# THE BASICS

TERM	DEFINITION	EXAMPLE
Agile	An adapted method of project management in which tasks are divided into short phases, and plans are regularly revisited and modified in response to new information.	One of the most popular agile methodologies is called "Scrum." The Scrum Alliance offers well-regarded certifications in their methodology.
AI	"Artificial intelligence" enables computers to perform tasks commonly associated with intelligent beings.	Image recognition and speech recognition are great examples of AI in action. Facebook's ability to guess who to 'tag' in a photo is a powerful form of image recognition, and of artificial intelligence.
API	Stands for "application programming interface." A set of rules that developers follow to create software that can interact with an external system or application.	Stripe developed a popular API that enables developers to seamlessly and securely accept payments in their applications.
Back end	The part of the product that you don't see, normally consisting of a server, a database, and a program serves indirectly in support of the front end. This is also called the "server side" of an application.	Any API or integration is considered part of the "back end" of an app or product. A payments API such as Stripe is part of the "back end" or "server side."
Client side	Another term for the "front end" of any application.	Any website or app interface (or any part of the software you can see or click) is considered the "client side." Any animation on an app appears on the "client side."
Code repository	A central file storage location, or a place where code and files are hosted (either privately or publicly).	GitHub is a famous "code repository." More than 26 million people use GitHub to store their code.

# THE BASICS (ctd)

TERM	DEFINITION	EXAMPLE
Database	An organized set of data or files. Critical part of the back end of any application.	
Framework	A scaffold in which developers can build applications.	Rails (as in Ruby on Rails) is a popular example of a framework. Developers use Rails as the scaffolding around which they build out their web applications.
Front end	The part of the product that a user interacts with directly, also called the "client side."	Any website or app interface (or any part of the software you can see or click) is considered the "front end." Any buttons, text, or other visual elements on a website are part of the "front end" or "client side."
Hybrid	An app that was written mainly in web code, and then put in a native container (via an application container technology such as PhoneGap) so it can take advantage of some native platform features via the container technology's API.	PhoneGap and Cordova are both popular technologies used by developers to build hybrid apps.
Language	A formal programming language that can be used to write instructions for a computer.	
Library	A collection of pre-written routines (e.g. classes, values, templates, and configuration data) used to develop software.	jQuery is a common Javascript library that contains common Javascript functions, thereby making it easier for developers to employ said functions.

# THE BASICS (ctd)

TERM	DEFINITION	EXAMPLE
ML	"Machine learning" enables computers make decisions or carry out tasks based on data, even when not explicitly programmed to do so. Focuses on the development of programs that learn for themselves.	When you mark a message as spam in your inbox, your provider will learn from what you individually consider spam and start catching similar messages in your spam filter. The software learns over time, thereby demonstrating simple machine learning.
Native	An app that was written specifically for a particular platform, and therefore can take advantage of its unique operating platform features.	Most of the top-performing mobile apps are written natively for both Android (in a language called Java) and iPhone (in Objective-C or Swift). The Facebook app, for example, is written in native code, which helps it take advantage of the phone's GPS, camera, and other mobile software.
Open source	Software or code that anyone can modify and use in their own applications.	WordPress is open source software that allows developers to build custom websites and blogs.
QA	"Quality assurance," is a way of reducing bugs, mistakes, and other quality issues. The quality assurance process is often managed by a QA engineer.	
Responsive website	A website that adjusts to users' screen size and platform, often used in reference to "mobile responsive design and development," or the practice of developing websites that work well on mobile phones.	When you open hatchapps.com on your phone, it will look slightly different than when you open it on your desktop— but for either platform it will look good and work well. For that reason, the Hatch Apps website is considered a "responsive website."
Script		

# THE BASICS (ctd)

TERM	DEFINITION	EXAMPLE
SDK	Stands for "software development kit." A set of software development tools that allow for the creation of applications for a specific platform, framework, or operating system.	Facebook has developed SDKs for various languages and platforms (such as iOS, Android, and Javascript) enabling developers to incorporate Facebook login, analytics, ads, and more into their applications.
Server	A computer that provides information/functionality for other computers.	
Server side	Another term for the "back end" of any application.	Any API or integration is considered part of the "back end" of an app or product. A payments API such as Stripe is integrated in the backend.
Stack	A set of languages, frameworks, and tools that are used in an application.	
System architecture	The model defining an application's technical framework.	
The Cloud	A network of connected servers. Often used in reference to the Internet.	When you upload documents to Google Drive or Dropbox, you are storing them on "the cloud."



# THE BASICS (ctd)

TERM	DEFINITION	EXAMPLE
UI	"User interface," or visual part of a product that end-user interacts with.	When someone thinks your application is beautifully designed, you have a well-designed UI.
UX	"User experience," or the experience of an end-user when interacting with a product. Encompasses emotions, attitudes, utility, ease of use, efficiency and more.	When someone thinks your application is easy and fun to use, they are having a good user experience— you have built a good UX.
Vanilla	Plain or basic, often used in reference to coding languages or other computing-related systems that remain unmodified from their original form.	Vanilla Javascript refers to Javascript that employs no libraries or frameworks.
Version control	Allows developers to track changes to files.	Git is a well-known "version control" system. Millions of developers use Git to store version history for their development projects.

# LANGUAGES, FRAMEWORKS, AND LIBRARIES

TERM	DEFINITION	COMMON?	LANGUAGE, FRAMEWORK, LIBRARY, DATABASE	USED BY HATCH?
AngularJS	An open source frontend web application framework originally developed by Google. It's used to build dynamic web apps.	Common	Framework	Y
ASP.NET	An open source framework originally developed by Microsoft that runs primarily on Windows.	Somewhat common	Framework	N
C	First appearing in 1972, C is a general-purpose language that spawned and inspired many of today's common programming languages.	Uncommon	Language	N
CSS	"Cascading Style Sheets" is a language that determines the styling (fonts, colors, layout, presentation, etc) for a website or web app.	Very common	Language	Y
C++	C++ is a general purpose, object-oriented programming language.	Common	Language	N
C#	An object-oriented programming language developed by Microsoft. Based on C++ and similar to Java.	Somewhat common	Language	N



# LANGUAGES, FRAMEWORKS AND LIBRARIES (ctd)

TERM	DEFINITION	COMMON?	LANGUAGE, FRAMEWORK, LIBRARY, DATABASE	USED BY HATCH?
Django	An open source framework built on Python built to speed up and simplify web development.	Somewhat common	Framework	N
HTML	The language that defines the basic structure of a web page. One of the three key technologies for any website, along with Javascript and CSS.	Very common	Language	Y
Java	An object-oriented, general-purpose computing language. Used for server-client web apps and for Android apps.	Very common	Language	Y
Javascript	An object-oriented scripting language used to make websites interactive (and more!). Javascript has applications for both the client side and server side.	Very common	Language	Y
jQuery	An open source Javascript library that provides built-in Javascript functions.	Very common	Library	Y
Laravel	An open source PHP web framework used to build web applications.	Somewhat common	Framework	Y

# LANGUAGES, FRAMEWORKS AND LIBRARIES (ctd)

TERM	DEFINITION	COMMON?	LANGUAGE, FRAMEWORK, LIBRARY, DATABASE	USED BY HATCH?
MongoDB	A NoSQL open source cross-platform database.	Somewhat common	Database	N
MySQL	The world's most popular open source database.	Common	Database	Y
Node.js	An open source server-side Javascript framework used to build scalable applications.	Somewhat common	Framework	N
Objective-C	An object-oriented language built on top of the C programming language. It is the main programming language used by Apple, and is commonly used in the development of iOS applications.	Very common	Language	Y
PHP	A server-side scripting language designed for web development. It's often used in combination with CMS' or frameworks. Wordpress, for example, utilizes PHP.	Common	Language	N
PostgreSQL	An open source object-relational database.	Somewhat common	Database	Y

# LANGUAGES, FRAMEWORKS AND LIBRARIES (ctd)

TERM	DEFINITION	COMMON?	LANGUAGE, FRAMEWORK, LIBRARY, DATABASE	USED BY HATCH?
Python	A clear and powerful general-purpose programming language. It is often used for backend development, data analysis, and machine learning.	Common	Language	Y
Rails (or Ruby on Rails)	A server-side web application framework written in the programming language Ruby.	Common	Framework	N
React.js	A flexible Javascript library used to build user interfaces originally developed by Facebook.	Somewhat common	Library	N
Sass	A style sheet language that extends from CSS.	Somewhat common	Language	Y
SQL	A language designed for managing data held in a relational database. In contrast, a NoSQL database is a non-relational database that stores data in a way different from the tabular arrangement of SQL.	Common	Language	Y
Swift	A general-purpose language launched by Apple in 2014 and used in the development of iOS applications.	Very common	Language	Y

# LANGUAGES, FRAMEWORKS AND LIBRARIES (ctd)

TERM	DEFINITION	COMMON?	LANGUAGE, FRAMEWORK, LIBRARY, DATABASE	USED BY HATCH?
Vue	An open source frontend Javascript framework used to build user interfaces.	Somewhat common	Framework	Y
Wordpress	A free and open-source content management system based on PHP and MySQL	Somewhat common	Framework	Y

# TOOLS

TERM	DEFINITION
AWS	"Amazon Web Services" is an on-demand cloud computing platform offering computing power, database storage, and more. Operates as a subsidiary of Amazon. The majority of customers are small businesses who can't afford dedicated servers or other IT expenses independently of AWS, but also used by companies like Netflix, Airbnb, and NASA.
Blockchain	A decentralized and distributed digital ledger used to record transactions across many computers so that records cannot be retroactively altered. For this reason, applications built on the blockchain are especially secure. It is now being widely used as a core component of cryptocurrencies such as Bitcoin.
EC2	"Amazon Elastic Compute Cloud" is a central part of AWS that allows users to rent virtual computers on which they can run their own applications.
Firebase	A mobile and web application development platform now owned by Google.
Git	An open source version control system.
Github	A popular web-based code repository and version control hosting service.

## TOOLS (ctd)

TERM	DEFINITION
Heroku	A cloud platform as a service used for web application deployment and management.
Stripe	A popular payments API, allowing developers to accept secure payments via their applications.
S3	"Simple Storage Service" is a part of AWS that provides scalable cloud storage.
Twilio	A popular messaging, voice, and SMS API, allowing developers to build applications make and receive both phone calls and text messages.
Watson	A supercomputer developed by IBM that, because of its AI and analytical software, can answer natural language questions about almost anything.
Wordpress	A free and open-source content management system based on PHP and MySQL. Often used to build websites or blogs