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# *Getting a Web Development Job*

FOR  
**DUMMIES**<sup>®</sup>  
A Wiley Brand

**by Kathy Taylor and Bud E. Smith**

FOR  
**DUMMIES**<sup>®</sup>  
A Wiley Brand

## Getting a Web Development Job For Dummies®

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## Getting a Web Development Job For Dummies ---

# Introduction

---

**W**eb development is a big bright spot in the world of work. Web development jobs include graphic designers, visual designers, front-end software developers, back-end software developers, content developers, and user experience people. All of these jobs tend to be interesting and high-paying. Most important, they make up a large and fast-growing part of the economy.

Although web development represents a passel of new opportunities, getting a job in the web development area can be a nerve-wracking prospect. The web area is changing fast, and the web needs of organizations change rapidly too. Large companies hire scores or hundreds of people for a big project, then let most of them go when the project is over. Or they hire a web development company, which staffs up when times are good, and then downsizes the moment they get a little difficult.

Web development people are also quick to change jobs to pursue new opportunities and to keep their skills sharp. So, as a web developer, you're likely to spend less time in each job than people in other kinds of careers, and to be looking for a job more of the time.

This book helps you get a web development job, keep a web development job, and then get your next web development job. It helps you understand what your immediate colleagues with the same or similar job title do for a living, and what your not-so-immediate colleagues who fill out all the related positions on a web development team do as well.

With this book, you can become more valued, more employable, better paid, and easier to hire.

## About This Book

*Getting a Web Development Job For Dummies* introduces you to the world of web development and to employment in web development. With this book as your guide, you'll learn

- ✔ How web development got to be such a big and important area
- ✔ Why companies care so much about their web-development efforts
- ✔ How to make yourself valuable within the web development world

- ✔ What the major categories of web development jobs are
- ✔ Which web development jobs you can position yourself for, given your interests and skill set
- ✔ How to position yourself if your core abilities are graphical and artistic
- ✔ How to position yourself if your core abilities are technical (related to writing code of some kind)
- ✔ How to teach yourself what's needed to offer the best of both worlds — and to get hired easily and paid accordingly
- ✔ How the web development needs of small companies, big companies, educational institutions, governments, and non-profits differ — and how that affects your employment prospects
- ✔ How to choose from among full-time employment for a traditional organization, full-time employment for a web development organization, and self-employment
- ✔ Why a web portfolio matters so much
- ✔ What the key concepts of web design jobs are
- ✔ How to get formal education for web development
- ✔ How to get on-the-job training — the famous OJT — for web development
- ✔ What the major web development tools are
- ✔ How to work for different kinds of companies
- ✔ How to network effectively in web development
- ✔ How to use online job boards and LinkedIn
- ✔ How to ace the interview
- ✔ How to create a portfolio site that will help you get the job you want, over and over again
- ✔ How to keep and grow within your ideal job when you find it

After you decide you want a web development job — or, once you have one, and decide that you want to keep working in web development — how do you move forward?

That's what this book is here for. It empowers you to understand the web development landscape and get the job you want, and then build the skills you need and the career you deserve.

The web development world is different from most other kinds of work: jobs, technologies, tools, and standards are changing all the time. This book is your guide to keeping up.

Many people got web development jobs — and some even kept them — without this book in hand. But, using this book as a reference, you can get jobs more easily, negotiate a better package for yourself, and build a career that you're proud of.

## Foolish Assumptions

*Getting a Web Development Job For Dummies* is written in a way that's fully accessible for beginners, for people who don't currently hold a web design job and are looking to get their first one. However, we do have to make a few assumptions in writing this book because we wouldn't have enough space to help you with the key parts of getting a job if we had to explain what a web page is! Here are our assumptions:

- ✔ You are familiar with computers, such as Windows PCs or Macintosh computers. We assume you can work with icons, the keyboard, and a mouse, and that you know the basics of using your computer for things like using the Internet or writing letters.
- ✔ You are familiar with using web pages for common tasks such as searching the web, looking for a job, and buying items such as books and movie tickets.
- ✔ You have a smartphone or a tablet computer and have used apps, and that you've used an app store to find and download new apps. If you do not have a smartphone, get a friend who has one to show you around the smartphone and how to find and download a new app.
- ✔ You know something about the basic mechanics of getting a job. If not, please see *Job Hunting For Dummies*, 2nd Edition, by Max Messmer (Wiley) to get up to speed.

## Icons Used in This Book

If you've read other *For Dummies* books, you know that these books use icons in the margin to call attention to particularly important or useful ideas in the text. In this book, we use four such icons:



The Tip icon highlights expert shortcuts or simple ideas that can make life easier for you.



Arguably, the whole book is technical stuff, but this icon highlights something that's particularly technical. We've tried to avoid unnecessary jargon and complexity, but some background information can give you a better understanding of what you're doing, and sometimes we do need to get techy. Sections

highlighted with this icon might be worth re-reading to make sure you understand, or you might decide that you don't need to know that much detail. It's up to you!



Although we'd like to think that reading this book is an unforgettable experience, we've highlighted some points that you might want to particularly commit to memory. They're either important takeaways, or they are fundamental to the project you're working on.



As you would on the road, slow down when you see a warning sign. It highlights an area where things could go wrong.

## Beyond the Book

- ✔ **Cheat Sheet:** This book's Cheat Sheet can be found online at [www.dummies.com/cheatsheet/gettingawebdevelopmentjob](http://www.dummies.com/cheatsheet/gettingawebdevelopmentjob). See the Cheat Sheet for information about the switch from tables to CSS, as well as the rocky introduction of the CSS standard in the late 1990s and early 2000s.
- ✔ **Dummies.com online articles:** Companion articles to this book's content can be found online at [www.dummies.com/extras/gettingawebdevelopmentjob](http://www.dummies.com/extras/gettingawebdevelopmentjob). The articles deal with creating an online portfolio, tips for searching for a job online, and how to get up to speed on specific tools.
- ✔ **Bonus *Getting a Job For Dummies* content:** Like all books in the *Getting a Job For Dummies* series, this book offers additional bonus content on the web. Sample resumes, a resume template, and videos about the web developer role can be found at [www.dummies.com/extras/gettingawebdevelopmentjob](http://www.dummies.com/extras/gettingawebdevelopmentjob).
- ✔ **Updates:** If this book has any updates after printing, they will be posted to [www.dummies.com/extras/gettingawebdevelopmentjob](http://www.dummies.com/extras/gettingawebdevelopmentjob).

## Where to Go from Here

Like other *For Dummies* books, *Getting a Web Development Job For Dummies* is a reference. That means you can read it in any order that you wish. You can page through the book for hot topics or use the Table of Contents and the Index to hone in on what interests you.



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You can also read the book in order. This is especially valuable in two quite different situations. If you're new to the world of web development, reading the book through is a great way to pick up a lot of context about what web development people do, and how they work together.

Also, if you're moving up into some kind of leadership or management role, it's valuable to read the book all the way through at that time as well. You can use the book's descriptions as an opportunity to think about how all the different kinds of professionals on a web team work together, as well as to reflect on what you can improve in your organization's web development efforts.

If you're considering moving into web development, either as your first career or from another area of work, read Part III. It talks about how to get a web-development education. If you have some other kind of education, or don't have any higher education, you can use this Part to figure out what relevant background you do have, and how to fill in any gaps.

If you're looking for a job and you have experience already, read Part IV. It tells you how to build a portfolio site, or how to improve one if you have it already, as well as how to carry out your job search.

# 6

## Getting a Web Development Job For Dummies ---

## Part I

# Getting a Job in Web Development



Check out [www.dummies.com/extras/gettingawebdevelopmentjob](http://www.dummies.com/extras/gettingawebdevelopmentjob)  
for more great content online.

## ***In this part . . .***

- ✓ Understand why web development matters
- ✓ Explore web development career paths
- ✓ Understand organizations that hire web development professionals
- ✓ Learn about the web development jobs market in the U.S.

# Chapter 1

---

## Seeing the Big Picture of Web Development Jobs

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### *In This Chapter*

- ▶ Discovering why web development has so many jobs
  - ▶ Understanding why companies care about web development
  - ▶ Figuring out what are some of the main kinds of sites
  - ▶ Seeing which jobs go with which kinds of sites
- 

**W**eb development is the largest and fastest-growing area of employment today. Web development includes technically oriented people who write computer programs, graphic designers who never see a line of computer code, content and marketing experts who concentrate on the visual and verbal appeal of a page, and many more experts and dabblers.

The ways in which people work in web development are as many and varied as the kind of work that is covered by the web development umbrella. Many people work traditional “day jobs,” but you will also see just as many people in a garage startup working 80 hours a week, contractors, consultants, part-timers, and people who will give you crucial insights that save your project just because you were good enough to buy them lunch.

The reason for the many and varied job descriptions, and the many and varied ways of working, in web development is simple: The web is the greatest creative canvas in human history. The rapid and continuing growth of the web is driven by the appeal of simple combinations of words and pictures, abetted now by multimedia, laid out in easy to scan and attractive ways, and offering users functionality from the simplest task — reading a newspaper article, say — to a dashboard that displays the operational status of a multibillion-dollar factory (or a multibillion-dollar war). Art, music, photography, creative writing, commerce — almost anything that people do is delivered by the web, or supported by content and functionality delivered by the web.

Only some of the work roles that support the wonders of the web are considered “web development jobs.” Here are a few descriptive phrases to help narrow down what we can consider part of the web development world:

- ✔ **Technical:** Web development jobs usually involve dealing with the technical considerations that are unique to the web — from the computer code that runs it, to the markup languages that control the delivery and display of words and images, to the hardware and software functionality that determines whether a web page appears quickly or slowly, to the often complex and demanding tools that are used to create websites and web content.
- ✔ **Creative:** The web is so new that there are relatively few rules in web development. The best way to do most things has usually not been found yet, let alone widely discussed, agreed, and set in concrete. Instead, a willingness to improvise, to try new things — and to search widely, and quickly, for the best of what other people are doing — is crucial to web development work.
- ✔ **Fast-changing:** The web development world is constantly and unrelentingly changing. Some things that used to be unreliable are now settled, such as the basics of HTML and even, dare we say it, CSS. (HTML, HyperText Markup Language, is the simple code that specifies parts of text, such as headlines or emphasized text, and that shows where to find an image file that will be displayed on the page. CSS, Cascading Style Sheets, is a newer kind of code that gives you considerable flexibility and control in onscreen page layout.) But more things are changing — new capabilities, new tools, new programming languages, and new best practices. (“Best” being a relative term here.)
- ✔ **Varied:** There are many specialists in web development, but people are expected to be multi-skilled, and to move away from less-needed or even obsolete skills to new abilities that are on today’s cutting edge. As an example, many web developers made a good living tweaking HTML markup and CSS code to make a web page work well on different personal computer web browsers, such as Internet Explorer and Netscape Navigator. That area has largely settled down, and many of the same people are now making the same web page work well on desktops, laptops, tablets, and smartphones, using the new versions of the same standards — HTML5 and CSS3.

We could go on, but this list captures the wide and fast-changing world of web development as well as any brief description can. And this list helps us to identify the one common element that is the most important in distinguishing the web development world, and the most crucial characteristic of the many, many people who thrive in it.

The common element in web development is change; most areas of web development are changing quickly. Even where technical standards have

settled down, how and even why we do things in web development continue to evolve. Styles come and go, such as web pages with big images and few words; needs change, as with the unrelenting growth of mobile.

And the most important characteristic of successful web development people is the secret to accommodating this rapid pace of change: a love of learning. It's great for a web developer to love change in and of itself, but what helps her thrive in that fast-changing world is the desire to swim better in these fast-flowing currents by picking up new information, new skills, new attitudes, and new ways of working.

The fact that you're reading this book shows that you probably have this core characteristic, this love of learning. You aren't happy with a top ten list or a brief video clip when you face a serious issue, and a big opportunity, such as moving over to, or moving up in, the world of web development. Of course, you will probably look at many top ten lists and video clips as well; there are several of each associated with or linked to from this book. But, as a reader of this book, you're willing to do some heavy lifting to understand this still-new world. Welcome!

## *Getting Why Web Development Matters*

Web development matters because the web matters in so many ways that we could take this whole chapter just to briefly describe them all.

Here's one way of describing how important the web has become, and how quickly it has grown in importance. One of us, Bud Smith, was working for Apple Computer in 1994. (Which, luckily, was nothing like *1984* — that's an old Apple joke.)

Smith started hearing about something called the World Wide Web, and seeing Mosaic, an early web browser, on developers' screens. He quickly pulled together a book proposal, and he was soon the proud co-author of an early web book, *Creating Web Pages For Dummies* (Wiley). This book went to nine editions and is still in print more than 20 years later. That's about how long the web has been known to most people, as usage grew and grew and grew.

In that time, the web has become ubiquitous in the developed world, and commonly used in the developing world. Facebook alone, which started out as a website and is now powered by mobile apps, has more than 1.3 billion monthly average users.

The web is now a major source of information, entertainment, commerce, computing capability, and more, and growing fast in all these areas every year. About ten percent of all retail sales go through the web in the developed

world, and steady growth continues. Websites change all the time, and many mobile apps — a very fast-growing area of software — are simply repurposed, and simplified, websites.

Books, magazines, newspapers, the telephone, movies, and television are all important communications and entertainment media today, and all of them, in their traditional forms, are being disrupted by the web. That is, all of them partly depend on the web as infrastructure and distribution — and all of them see the web as competition. And one can hardly emphasize enough that this disruption is continuing year after year after year.

Also, none of the other media listed is also a front end for software. Inventor and entrepreneur Marc Andreessen famously said, “Software is eating the world.” This means that more and more of the things that people do are being converted to software. And more and more of that software is being presented to people through websites and apps. (See the sidebar “Is app development the same as web development?” for more.)

For an example, consider Amazon ([www.amazon.com](http://www.amazon.com)). Amazon stores and presents user reviews for an immense range of products. It displays a different version of its home page to you based on your past purchases. And it makes recommendations to you based on your past purchases and the content you’re currently looking at. It also lets you buy with a single click, if you wish. (This feature is almost unique to Amazon, which protects its intellectual property zealously.)

All this functionality is based in software — often quite consequential software. Amazon’s recommendation engine, for instance, is a major software engineering project in its own right, protected by patents and trade secrets just like other advanced technology.

What’s important here is that all this technology is presented through a web interface and is considered to be part of this market-leading website. As a supporting point, making a website work better is causing new and improved technology to be developed on a rapid and constant basis.

So you have the fastest-growing medium ever, and one that is at least as consequential as any other medium, ever. And it was invented and became popular not much more than a couple of decades ago. The size and importance of the web, its innovative use and creation of technology, and its incredibly rapid growth are the core reasons why web development is so important.

Apps are also pretty specialized, given that they work on small screens and have limited functionality. Overall, app development is not the same as web development, but many apps are repurposed websites, including significant functionality, and web development jobs can include app development. Companies that specialize in app development are likely to hire people with web development backgrounds, and then teach them a few additional skills so they can help turn out killer apps instead.



## Is app development the same as web development?

An app is a computer program that's sold as a product in an app store: Apple's iTunes App Store, the Google Play Store, or similar.

An app is, technically speaking, the same as an application — a computer program that's sold as a product. But apps were designed for small-screen devices, such as the iPhone and Android phones, then extended to tablets. They evolved to mostly be limited in purpose (one function, or a few closely related functions); very easy to use; and cheap, either free, or sold for a few dollars.

Many websites are a lot like apps (and vice versa). For instance, your bank's website

probably lets you see your statements, pay bills, make deposits by photographing checks, and more. If your bank has a phone app or an iPad app, they probably do all of the same things.

However, apps are not exactly the same as websites. Many websites are information-only, or information-mostly, with just a little bit of functionality — such as a simple form that you fill in to join an email list. But Apple has recently moved to prevent apps that are information-mostly from being listed on the App Store.

## Why There Are So Many Web Development Jobs

Web development jobs are one of the largest new categories, and one of the fastest-growing categories, in employment. For the U.S., the Bureau of Labor Statistics says that there are roughly 150,000 positions at this writing. Over the next decade, employment is expected to grow about 20 percent here. The main driver of job growth in web development is e-commerce. In many retail categories, about 10 percent of all sales are completed online. That percentage is expected to roughly double over the next decade.

However, there are more web development jobs in the job listings than for other kinds of positions, even those with more total employees. Why is this? A few reasons spring to mind:

- ✓ **Rapid growth:** Most job categories aren't growing by double digits per decade. Companies need to advertise constantly to support growing their roster of web development people.
- ✓ **Rapid change:** The skills needed in web development are constantly changing. For instance, Facebook recently introduced a new computer language called Hack. It's a version of the web scripting language PHP, but with strong *typing*, which is the capability to declare what kind of

information a new variable holds in advance, such as text or integers (numbers without decimal points, such as -1, 0, and 42). If you can show that you have experience as a Hack developer, a company that wants to put the new language to use will probably hire you.

- ✓ **High conventional turnover:** There's high turnover in web development jobs, with people leaving one job for another job, or leaving the workforce for other kinds of jobs, family reasons, or retirement. It often seems that the only way to get paid fairly for hot or new skills is to leave one job and go to another. Two years can be a long stint at one company in web development!
- ✓ **New approach:** The emergence of mobile devices, now equaling conventional PCs for web access, has led to new needs. Responsive websites, which work well across a wide range of screen sizes, and mobile apps are among the new needs that drive growth.
- ✓ **High unconventional turnover:** In web development, people often move back and forth from regular employment to contracting (you get paid by the hour, without much in the way of benefits from the employer) or consulting (similar to contracting, but usually including giving advice on what to do, with perhaps some contracting-type hourly work included). This kind of turnover really gooses the job postings as employers struggle to keep people in conventional jobs.
- ✓ **Prospecting:** Companies are often not fully serious about job postings in general, and tech job postings in particular. That is, they don't have an open position right now that they'll fill if they find the right candidate. Instead, they'll get resumes in, interview people, and then have someone ready if an opening comes up — or move an existing employee out, even if he's fairly productive, and move someone who seems more promising, or less expensive, in.
- ✓ **More employer:** There are many new companies springing up to meet the needs of established companies, as well as startups with their own needs for standout web development. There's lots of greenfield work — developing brand-new websites that haven't existed before — as well as improvements and extensions to existing websites, especially changes to add to mobile functionality.

## *Why Do Companies Care about Web Development?*

Companies care tremendously about web development. The reasons are complicated, numerous, and differ from one company to another, but there are many common themes.

Web development needs differ from organization to organization — and, within an organization, often from quarter to quarter. That’s because the web is protean — it can do so many things.

Following is a brief and partial list of different types of websites. It’s important that you recognize these types of sites because the types of job roles they require will vary significantly.

## *Basic company brochureware*

Every company of any consequence today has at least basic “brochureware” website. This website does the same thing as a brochure that the same company might hand out at a trade show or a job fair, or give to investors or press people:

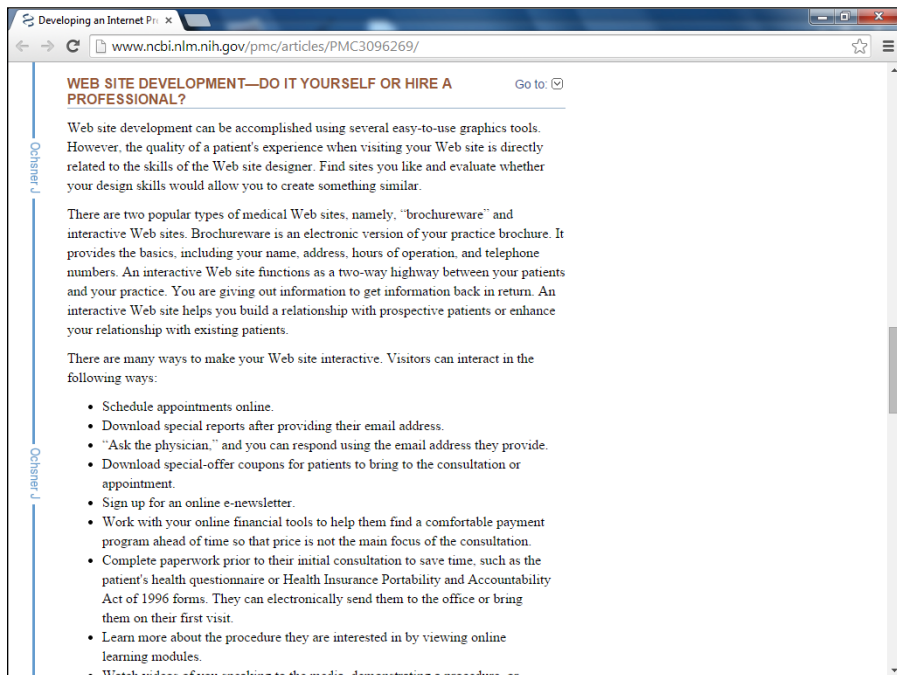
- ✔ **Describe what the company does:** People who learn of a company sometimes wonder what the company does — and, for some companies that are particularly complex, including those that have grown through multiple acquisitions, the people wondering can include managers of the company itself! A website will have an About section that describes what a company wants to say it does in the world.
- ✔ **Show where the company is:** A company uses its website to describe where it’s located. This can be very simple, as with a single company office location, or very complicated, including not only multiple sites where the company has offices, but also the location of distributors, retailers, repair shops for a company’s products, and more.
- ✔ **Announce who managers are:** Some companies put all their employees’ descriptions up on the web, and companies with investors are compelled to put the names of certain legally defined officers. Most companies put up at least the top half a dozen or so employees, who are meant to be an impressive-looking group that will make you want to invest, go to work for the company, buy their products, and so on.
- ✔ **Show off what the company sells:** A website is a great place for photographs of any tangible products the company sells, whether it’s knives for professional chefs, house plants, cars, or boats. Again, this is a classic brochure function, translated to the web.
- ✔ **Tell you where to buy the company’s products:** A website helps you find out how to buy. This can mean everything from going to the nearest corner store to contacting the company’s sales department.
- ✔ **Tell you how to get a job:** A website usually tells you how to look for work at a company. It will often have job listings and an email address or form for submitting your resume and a cover letter.
- ✔ **Keeping in touch:** Many companies will offer an email list that you can join for regular updates from the company.

Brochureware sites were developed because it's easier and cheaper to put this kind of information on a website than it is to write, lay out, and print up a brochure, and then get it in the hands of the person who needs it — which usually takes precious time. The people seeking information doesn't have to wait to get a brochure, try to remember where they put it, or worry about whether it's up-to-date. They just find the website and look for themselves.

Brochureware sites also serve another purpose — they allow a company to say, “Of course we have a website.” Brochureware sites often reflect a company that hasn't thought through how it can really take best advantage of the web.

Figure 1-1 shows a discussion of brochureware sites on the National Institutes of Health site, where it compares them to interactive websites. You can visit it at [www.ncbi.nlm.nih.gov/pmc/articles/PMC3096269/](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3096269/).

Websites are commonly used to sell, support, and arrange for service for products. If a typical company isn't looking to do these things online, it probably should.



**Figure 1-1:**  
The National Institutes of Health has a useful discussion of different types of websites.

When Marc Andreessen says that “software is eating the world,” this is what he means. It’s very often easier, cheaper, and more effective to do at least part of any function a company does online, supported by software and available to everyone. Just for one example: A company may have a product that’s very hard to choose and fit online, such as shoes. (We know shoes are sold online, but they’re still sold in person a lot too, for these reasons.)

So say that you’ve decided to only sell shoes in person. Well, you’re not done. A customer who has purchased your great shoes and received your great service may want to buy another pair of shoes like the ones she bought before. If she hasn’t grown or otherwise changed, the exact same shoes will work for her. A website is a great way to help her reorder them.

Or, perhaps the customer is really excited about her shoes and wants to join a club or have an ongoing discussion about them. The online world is a great place to do that.

Brochureware sites for large companies can be very extensive, with tons of information. But in these cases, it’s even more likely that the company is missing opportunities to do more online.

If a company hires you to work on a brochureware site, think through whether it’s missing opportunities to do more. You may be able to expand the job opportunity — but, if the company is too stuck in the mud, you may decide you don’t want to work for the company at all.

What kinds of website developers are needed for a brochureware site? Here are a few descriptive characterizations, although one person can have more than one skill:

- ✔ **Website designer:** Usually, when most people refer to a website designer, they mean a generalist — relatively speaking — who can mock up the look of a website for approval, lay out the site using HTML and CSS, and put content in it.
- ✔ **Graphic designer:** A graphic designer will fine-tune the look of the website, possibly take and possibly edit photographs, help choose fonts, and so on. The website designer will often be, or hire in, the graphic artist.
- ✔ **Writer:** Often a writer will be hired to write and edit the words in a website. The task is often more about editing than writing, because the words are often adapted from existing materials, such as — you guessed it — a static, printed marketing brochure.
- ✔ **Analyst:** Often, after a website is up, companies will want to know who’s looking at what pages, and what actions they take, where possible — clicking for more information, filling out a form to request information, and so on.

## “Just go look on the website”

One of the most annoying things a potential customer can be told by a company employee when she has a question is “just go look on the website.”

People today know that organizations have websites and that they can find all sorts of information on them. They also know that it can be hard to find information on websites, especially on a smartphone — which is all they’re likely to have handy when they’re asking an employee a question.

When people are talking to an employee, they want information now, and they may want more specific information than a website is likely to provide; they may want the newest information, which may not be on the website yet; they may have follow-up questions, so the easy one is just a starting point; and they may not want

to bother to search online, now (with their smartphone) or later (with a tablet or personal computer).

Recognizing these user needs, what can a web developer do? First, use questions that employees get from people, including questions that are asked live and in-person, as fodder for the website. The web indeed should answer all the questions that people commonly asked, and the information should be dead easy to find.

But, as a web developer, you should also recognize that people get information in many ways, not only through your precious site. Consider working with others in your organization to make sure that there’s a free flow of information that gets on the website — and that customers can get directly from employees when they want it.

## *A database-driven site*

A database-driven site can be almost any kind of site, but at minimum it’s a step up in technical complexity from a brochureware site. In a database-driven site, each page that’s shown in the site is generated from a database call.

Look at a site for a newspaper such as *The New York Times*. The *Times* has too many stories that change too fast to write separate HTML and CSS code for each web page that displays a new story. Instead, the story is placed in a database, and the data is then retrieved when someone wants to see the story.

With this kind of flexible web page, ads, recommended stories, and other content on the web page can also be generated from database calls. The website becomes far more flexible; at the same time, an entire new level of complexity is introduced because it becomes much harder to know, or track, just who among the visitors to your site has seen exactly what.

A database-driven site typically uses a content management system (CMS): a tool for people to enter and link information that will appear on the website. A good CMS makes a lot of people’s jobs easier, but it’s also the case that,