gupshup

Who is a Bot Developer? Everything You Ever Wanted to Know

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In our hyper-connected digitised world, software is everywhere – from homes and personal digital devices, to cars, buildings, businesses and airplanes. In addition to its ubiquity, software is also fairly non-intrusive and low-friction, allowing users to enjoy its many benefits without needing to learn about its components or codes that power it in the back end. And this is all thanks to the skills, expertise and efforts of developers.

❯ But who is a developer?

❯ What does a developer do?

❯ What are their roles and responsibilities?
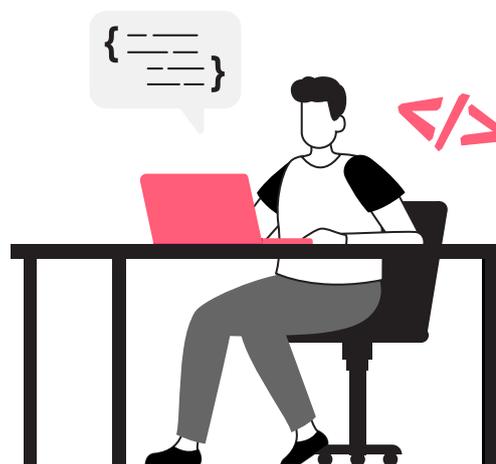
In Part 1 of this detailed guide, we address all these questions. Part 2 covers more specific information about the different kinds of developers, their roles, responsibilities and skills, including:

❯ WhatsApp developer

❯ Web developer, front end web developer, back end web developer

❯ Mobile developer and full stack mobile developer

❯ Chatbot developer

❯ iOS mobile developer

❯ WordPress web developer

But before we do a deep dive into the interesting world of software developers, let's start with a quick overview to answer our first question: who is a developer?

PART I
Who is A Developer?

A developer is someone who builds, creates, updates and maintains softwares and applications. They utilise one or more programming languages such as HTML, JavaScript, Python, C++, etc. to write, execute and debug the source code. They also play a critical role in software deployment.

A developer is sometimes known as a software developer, coder or software engineer. The titles "developer" and "programmer" are also used interchangeably, although there are slight differences between these roles. Developers have a greater understanding of the full project scope, and are more involved with the project from start to finish.

Programmers are only involved in a specific part of the software development project i.e. creating the code.

This is a broad overview of a developer. However, software is created for different devices, purposes and users, which is why thousands of different types of softwares and applications are in use today. To create and code these different products, developers with specific skillsets and expertise are required.

For example, a WhatsApp business API developer can rarely work on projects for web or mobile applications where a web and mobile developer (or a web developer and a mobile developer) would be more suitable. Similarly, even the best web developer may fail on chatbot development projects where a specialist bot developer such as a Telegram bot developer or a WhatsApp app developer may be required.

A developer may work alone on a single software project, or they may be part of a team. Depending on the product's size, purpose, customer and timelines, a developer may develop only part of the product. Or they may work on the entire product or service, and therefore have full visibility into the project.

Software Developer:
General Roles and Responsibilities

Software programmers write code, and also perform testing and debugging. A developer is also a programmer. But apart from writing code, they also contribute to other aspects of the software development process, including:

| Software design |
| Research and analysis |
| Development |
| Implementation |
| Maintenance |
| Testing |
| Documentation |
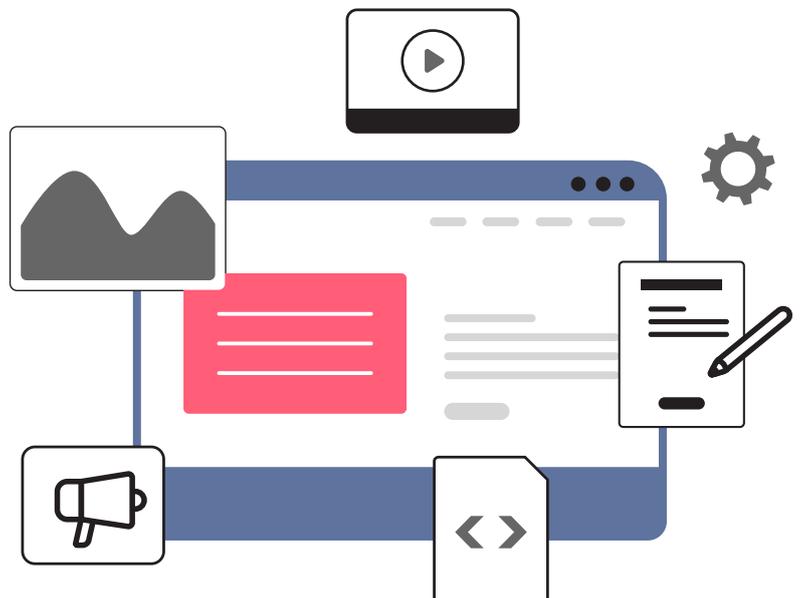
DevOps Software Developers

The traditional Software Development Lifecycle (see next section) is increasingly incorporating DevOps culture, tools and methodologies. As more companies adopt the DevOps approach, the demand for skilled DevOps developers is also increasing. These professionals have several additional responsibilities in addition to the ones listed above. So, in addition to scripting and coding competence, they also have expertise over the entire product development and deployment process. They are also well-versed in DevOps concepts, including:

❯ Continuous Integration (CI)

❯ Continuous Delivery (CD)

❯ Infrastructure as Code (IaC)

❯ Microservices Architecture

❯ Monitoring and logging
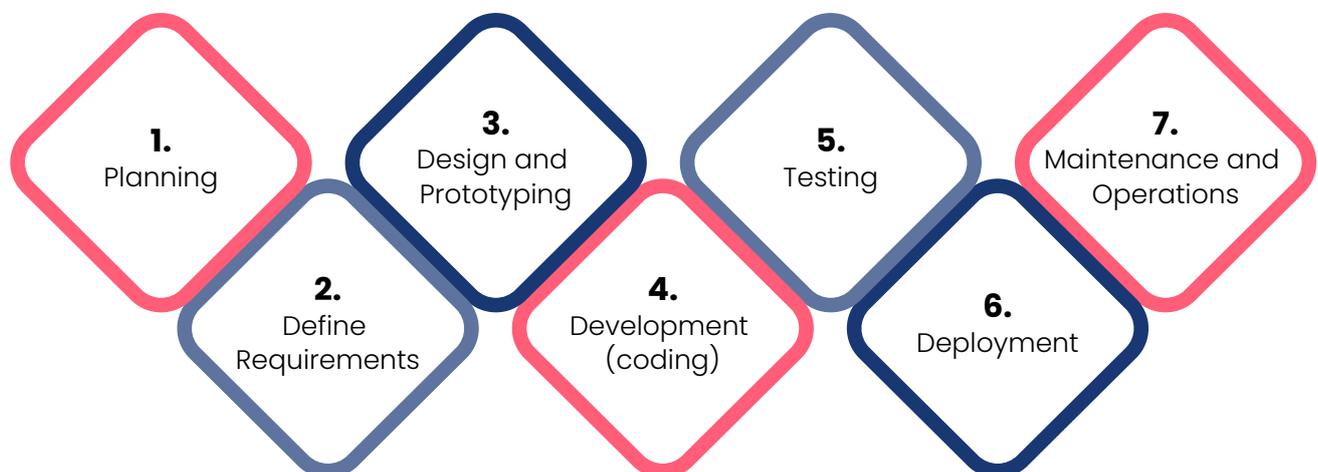
Software Developer & SDLC: A Match Made in Heaven

Every developer – whether they are a web and mobile developer, chatbot developer, ISV developer, or anything else – needs a systematic framework to create a high-quality, reliable and secure product. This is where a Software Development Lifecycle (SDLC) is absolutely vital. Every professional web developer, full stack mobile developer, WhatsApp developer and bot developer (and every other kind of developer!) relies on the SDLC to produce a high-quality product on time and within budget.Many different SDLC models are available to help developers define, plan, execute and control the software development process. Some common SDLC models include:

❯ Waterfall   ❯ Spiral   ❯ V-shaped   ❯ Iterative   ❯ Agile

The choice of SDLC model depends on numerous factors such as:

❯ Project size   ❯ Team size   ❯ Risk appetite   ❯ Timelines   ❯ Customisation requirements

Regardless of the model chosen, every SDLC consists of these 7 phases:

1. Planning

2. Define Requirements

3. Design and Prototyping

4. Development (coding)

5. Testing

6. Deployment

7. Maintenance and Operations

This brings us to the end of Part 1 of this guide.

PART II
WhatsApp Developer

Over the years, WhatsApp has evolved into a powerful tool for brand-customer and customer-brand messaging. Small businesses can directly download the WhatsApp app and get started with customer interactions right away. However, for medium and large businesses, WhatsApp has developed a better, more scalable way via the WhatsApp Developer API, to engage with customers from anywhere in the world.

WhatsApp Business API developers implement and integrate WhatsApp API into an organisation's system. WhatsApp has created a Developer Community Forum and a Support site for WhatsApp Business API developers to ask and answer questions about their integration.

However, to ensure integration (and project) success, a fair amount of coding knowledge about the WhatsApp business API for developers is still required. This is where specialist WhatsApp developers are really valuable.
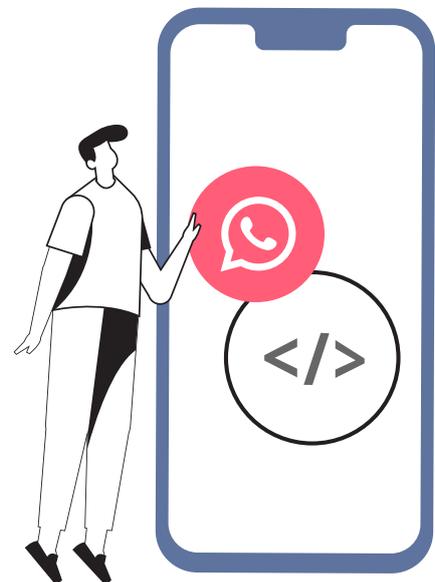
Web Developer

As of January 2021, there were close to 2 billion websites on the Internet. These websites are of many types:

Static	Dynamic	CMS-built	eCommerce	Progressive applications

Web developers create, build and maintain these websites. They also analyse user needs to ensure that the website has the right structure, and includes the right content, graphics and features to meet the goals of the website's owner and end users.

To build a website, a professional web developer performs all the following tasks:

❯ Use authoring or scripting languages like XML, HTML, CSS, Java, JavaScript, SQL, Python and PHP

❯ Write, design and edit content

❯ Address issues uncovered during testing or user feedback

❯ Convert text, graphics, audio files and video files into compatible web formats for implementation on the website

As websites have become more complex, user-focused and feature-rich, the web developer's role has expanded. Often, website projects make use of separate front end web developers and back end web developers. The demand for specialised PHP web developers, eCommerce web developers and WordPress web developers is also growing.

Front End Web Developer &
Back End Web Developer

Front end web development (also known as client-side development) involves producing HTML, CSS and JavaScript code to architect and develop a website or web application. This allows users to directly see and interact with the site. A competent front end web developer develops sites and applications which commonly run in web browsers, headless browsers, and as compilation input for native runtime environments.

Since front end development tools and techniques are constantly evolving, front end web developers must stay updated on these trends.
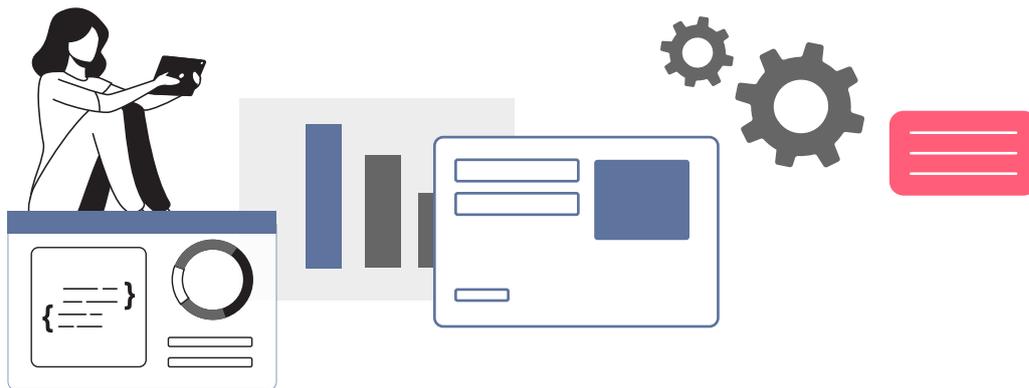
Back end web development refers to server-side development, i.e. all the back end activities that occur when a user performs an action on a website or web application. A back end web developer mainly focuses on scripting, databases, APIs and website architecture, and write code that enables web browsers to communicate with the database. Such developers are skilled in:

❯ Back end programming languages like Java, Python, Ruby and .Net

❯ Database technologies like MySQL, MongoDB, Oracle, SQLServer, and Redis

❯ Caching mechanisms like varnish, Memcached, and Redis

❯ Server technologies like Apache, Nginx, IIS servers, Microsoft IIS

❯ APIs: REST and SOAP

WordPress Web Developer

WordPress is an open-source website building platform and content management system (CMS). It is so popular that it now powers over 37.8% of all websites on the Internet.

A WordPress web developer specialises in leveraging the WordPress (WP) infrastructure and ecosystem to build on-brand, user-friendly websites. They have a deep understanding of the WP core, library and best practices, and have advanced PHP programming skills. They can build custom plugins, modules and themes, build sitemaps and wireframes, and help create, customise, and manage WP sites. Some WP developers may also migrate an existing site to the WP platform, or redesign it for SEO optimisation.

PHP Web Developer

PHP is a popular backend scripting language for websites and web applications. A PHP web developer writes server-side web application logic. Along the way, they develop back-end components, develop and integrate plugins, and connect the application with other web services. These are often third party services. A PHP developer also supports the front end web developers by integrating their output with the application or site.
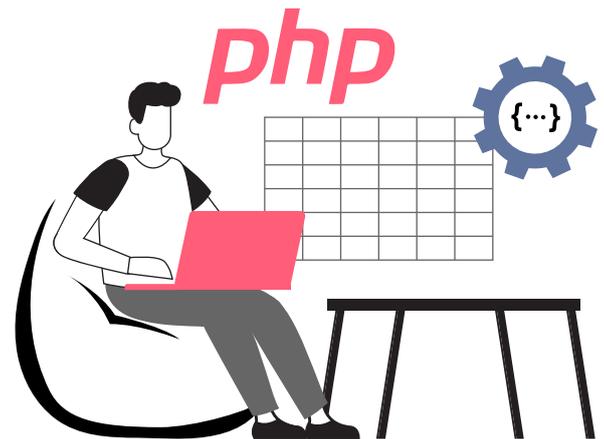
eCommerce Web Developer

eCommerce web developers are specialists who develop customised eCommerce website solutions. They have the skills to create easy-to-navigate, conversion-focused websites that are integrated with various ecommerce tools and platforms like Magento, Shopify, WooCommerce, PrestaShop, etc.

For instance, a Magento Web Developer can build customized, responsive, and feature-rich eCommerce storefronts for the Magento eCommerce platform. The developer will also take care of shipping and payment integration, multi-vendor development, mobile optimisation and SEO optimisation.

The best professional web developers for eCommerce will also know how to:

> Optimise website loading speed
> Implement high-grade security (e.g. for the payment gateway)
> Include custom functionality, themes and modules
> Set up website analytics and reporting

Mobile Developer

As of June 2021, there are [4.88 billion mobile phones in use in the world.](#) Smartphones account for 3.88 billion of them. This means that for a global population of approximately 7.5 billion, 48.33% of people in the world own a Smartphone. Clearly, Smartphones are here to stay. And where there are Smartphones, there are Smartphone apps.

People spend 9% more time browsing apps compared to websites. Worldwide revenues from mobile apps are expected to go [over $900 billion by 2023.](#) On-demand apps (e.g. food delivery), utility-based apps (e.g. weather), gaming and entertainment apps, online casino apps, news and information apps, and finance apps are particularly popular. As a result, the demand for skilled mobile developers (particularly app developers) is very high.
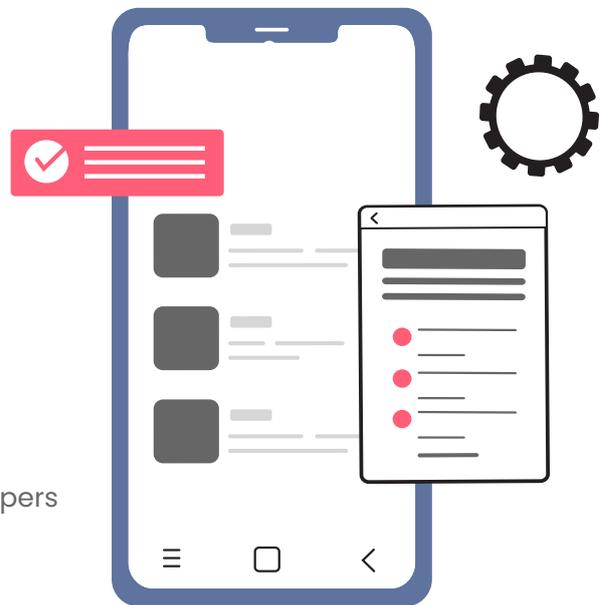
Mobile developers design, build and maintain mobile applications. They specialise in mobile technologies and operating systems like Google Android, Apple iOS and Microsoft Windows, frameworks like Appery.io and TheAppBuilder, as well as languages and development environments for these specific platforms, such as:

› Java for Android

› Objective-C for iOS

› C# for Windows Phone

Mobile developers have some skills and competencies in common with other developers. However, since their products need to work consistently on smaller devices, they need to think about a great number of hardware specifications and configurations. This is why most mobile developers are specialist Android mobile developers, iOS mobile developers, etc. They may also specialise in specific app areas like gaming, health, finance, etc.

Typically, mobile developers are responsible for:

› Developing APIs to support mobile functionality

› Coding

› Adapting existing web apps for mobile

› Setting up app functionality and design

› Creating app mock-ups

› QA and bug fixing

› Running beta tests

› Creating documentation

A full stack mobile developer is a highly-competent (and rare!) professional who can build an entire mobile app, from its back end to middleware to front end tools. They can also build native, hybrid, and mobile web apps. Such a person has expertise in various technical areas, including:

❯ Hardware
❯ Operating systems
❯ Hosting
❯ Virtualisation
❯ Containers
❯ Scaling
❯ Server and package management
❯ Front end design and development

Bot Developer

Did you know:

❯ About 1.4 billion people who use messaging are willing to talk to chatbots
❯ Better bot experiences with engaged audiences get 80-90% response rates. Even the least favourable experiences are in the 35-40% range.

And according to Gartner, "by 2022, 70% of white-collar workers will interact with conversational platforms on a daily basis."

More and more people now demand instant, digital connections with brands that create personalised experiences along their purchase journey. Chatbots are a great way to deliver such experiences in real time, and at very low cost.

Chatbots also deliver numerous other advantages to businesses:

❯ 24x7 availability to provide quick answers to customer queries
❯ Present a positive brand face to customers
❯ Proactive support during shopping to increase sales, repeat sales, upsells and cross-sells
❯ Provide insights into customer behaviour to guide the company's sales and marketing strategy
❯ Multiple use cases: Marketing, Sales, Promotions, Customer Support, Helpdesk, etc.

The increasing popularity of chatbots – with customers and with organisations – translates to increasing demand for bot developers.
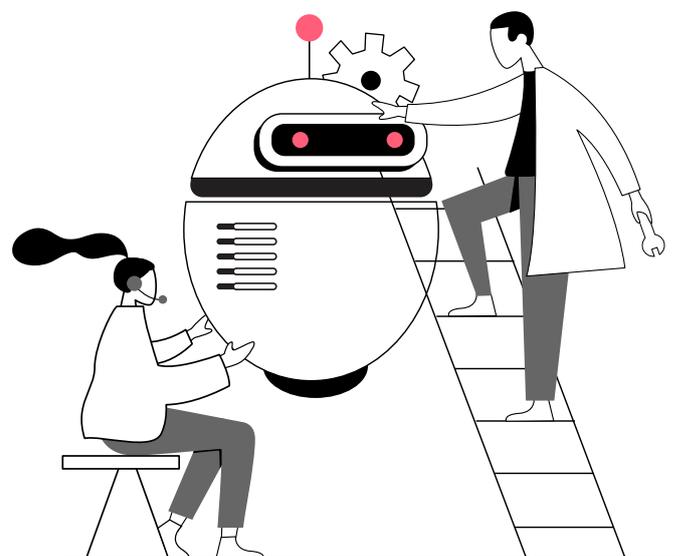
One of the most critical skills for a bot developer is the ability to build chatbots that can understand the various nuances and contextual cues in human language. A bot developer leverages a code-based framework like IBM Watson or Microsoft Azure Bot Service to create more complex chatbots. For this, they must have in-depth knowledge of:

> Development frameworks

> Programming languages like Python, PHP, Java and Ruby

> Technologies like AI, ML and NLP

> Integration technologies and APIs to integrate chatbots with WhatsApp, Facebook, Telegram, etc.

> Programming logic and decision trees

A verified bot developer is someone who has completed specific requirements to verify their bot and earn a badge such as a "Discord" badge.

Gupshup's no-code bot builder platform is ideal for organisations that want to quickly deploy an on-brand, user-friendly chatbot but don't want the hassle or cost of hiring a bot developer. Explore it here. Customised bot development services are also available for those looking to build more complex bots for marketing, sales and customer support.

Conclusion

We started this guide with a very simple question: who is a developer? We answered this question in broad terms, and then provided specific information about the different types of developer roles and responsibilities. We hope you found this information useful!

The world of software and app development is constantly evolving, and it can be overwhelming to find the right resources for a development project. If you're looking for bot developers or WhatsApp Business API developers but don't know where to start, give Gupshup a call. Explore our website to know more.