

# Overview: What is Wakanda?



This preliminary documentation does not reflect the final content and design.

# What is Wakanda?

Wakanda is an open-source platform that allows you to develop business web applications. It provides a unified stack running on JavaScript from end-to-end:

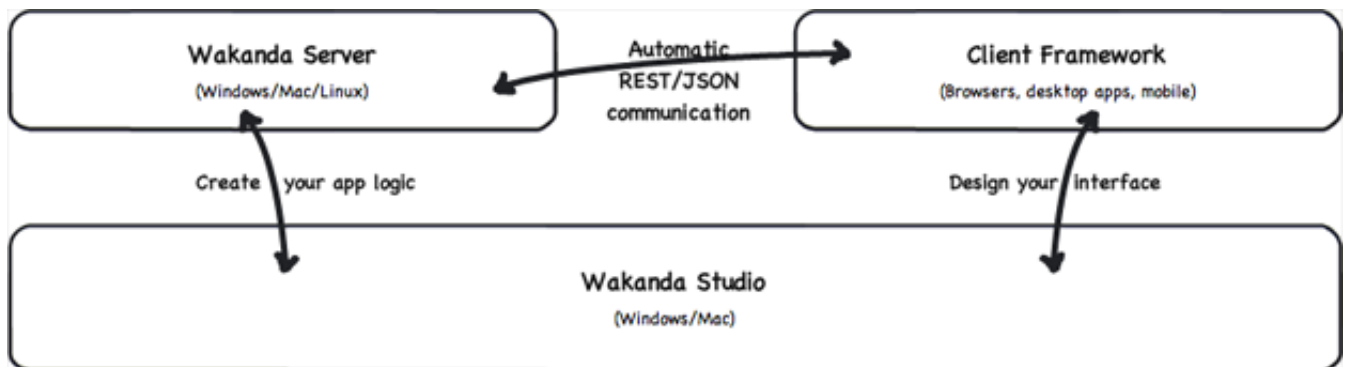
- Cross-platform and cloud-ready on the back end
- Fully functional, go-anywhere desktop, mobile and tablet apps on the front end

You gain the ability to create browser-based data applications that are as fast, stable, and capable as native client/server solutions are on the desktop.

The platform is comprised of:

- Wakanda Server
- Wakanda Studio
- Wakanda Client Framework

Take a look at the [Wakanda Architecture](#) document to get an overview of Wakanda's components and how they interact with one another.



In general terms, Wakanda provides you with a server to store your data as well as a system to make sense of your business logic. You create the logic visually in Wakanda Studio, which also gives you intricate control over the web-based front end via WYSIWYG editors for elements based on HTML5, CSS3 and JavaScript. Wakanda's advanced client framework puts these interface elements in place and dynamically links them to the data on the server.

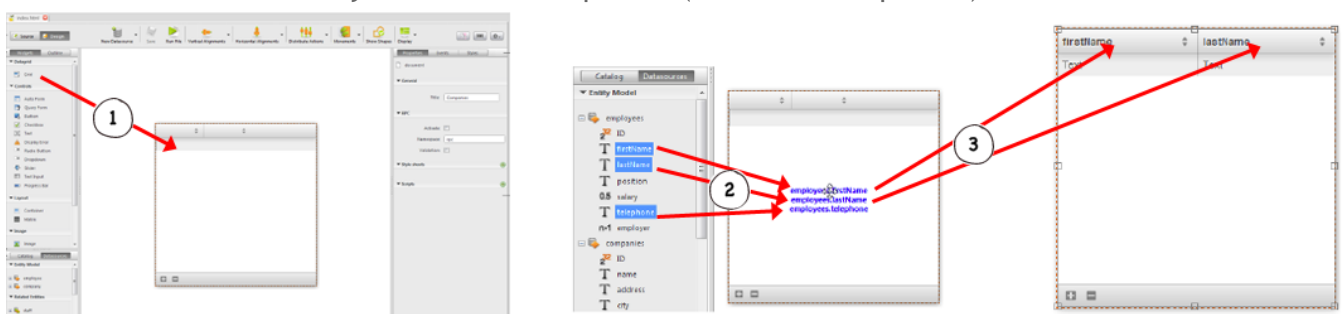
Notice that no code is generated behind your back: no SQL statements, no binaries, ... What you write is what you get.

## Save Time

Connecting the interface and the data has two advantages:

- You can bind an interface element to data on your server (and its attached functionality) with a single click and define its properties in a palette.
- Whenever there is a change to the data or its corresponding function, the interface element and its properties will automatically change with it.

This connection will save you much development (and re-development) time.



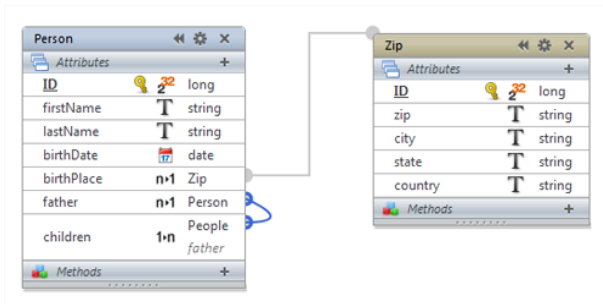
1. In the GUI Designer, dragging and dropping a grid from the Widget panel, creates it on the page
2. From the Datasources panel, the grid can be connected to several types of data
3. The data is then automatically bound to the grid as displayed in the user interface

## JavaScript Everywhere

The common thread between all of Wakanda's components is JavaScript. It not only makes all the interface widgets work, but it also allows you to manipulate the business logic on the server. Use JavaScript to query the datastore and define your application's behavior.

Wakanda's implementation of JavaScript eliminates overcomplicated ORMs and the tedious generation of SQL code that sometime needs to be manually optimized (which complicates maintenance). Thanks to JavaScript, you can develop web and mobile applications that act as native ones. Instead of requiring a patchwork of languages, such as PHP, SQL, Ruby, PERL, Java, Objective C, or C++, Wakanda development requires only JavaScript.

With the help of JavaScript, HTML5 and CSS3, you easily deploy your application on any mobile device.



```
// Find all people born in New York and return an array
// of cities in which all their grandchildren were born
```

```
ds.person.query('birthPlace.city = "New York"')
    .children.children.birthPlace.distinctValues('city')
```

Alongside its corresponding classes, here is an example of JavaScript code that would be much longer if it were written for a SQL database.

## For Any Developer

At the same time, you let Wakanda do the bulk of the work, using very little code to complete an application. Wakanda handles all the machinery, which is sometimes difficult to manage: You focus on the business logic, on the heart of your application and on its interface. You don't need to be a JavaScript expert to build powerful apps with the Wakanda platform. But being one of the easiest and most ubiquitous languages on the planet, JavaScript can be learned and applied in very little time, no matter your development background. It can be as simple or sophisticated as necessary. And by using standards-based files, you can ensure access by just about any developer on any platform using a variety of third-party tools.

## For Any Application

Wakanda is well suited for all kinds of business applications as well. Maybe you're building an internal, department-specific application with tightly secured access. Or perhaps you need a public site with thousands of users accessing large amounts of shared data.

Wakanda can be tailored to the most exacting needs and a wide range of scales. From start-ups with a new breed of application in mind to established enterprises with specialized needs, businesses of all kinds can benefit from Wakanda's rapid model for development, testing and execution.

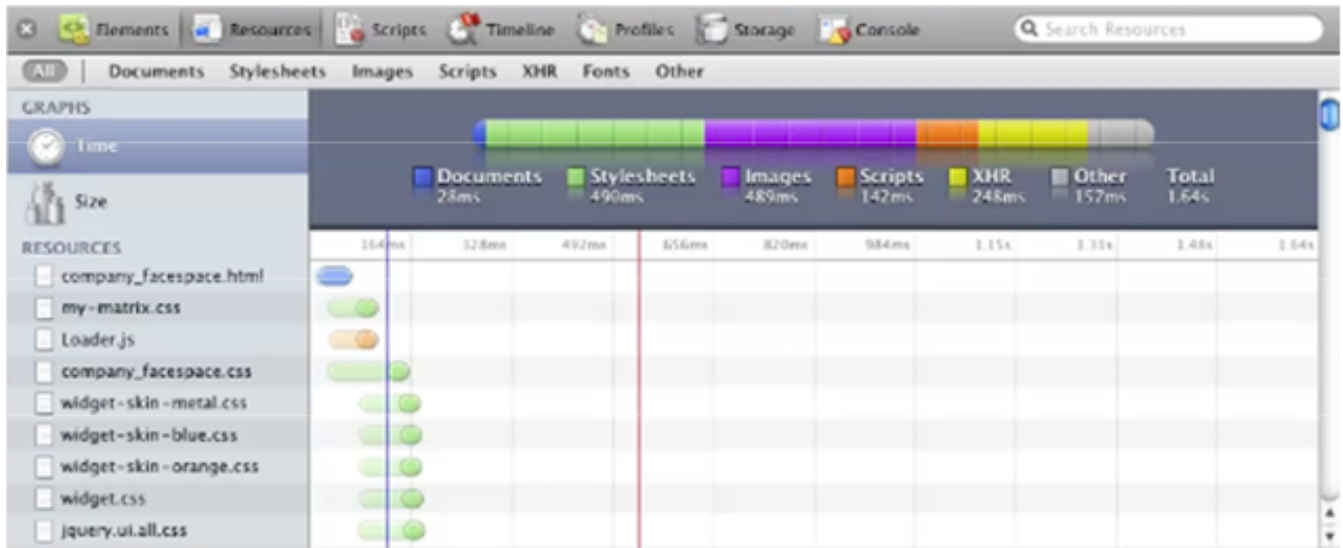
## It's Fast

Fast turnaround is matched by fast performance. Wakanda Server runs perfectly on Linux, Windows, and Mac, doing all the heavy lifting of the data and business logic as well as acting as a web server.

Data and procedures can eventually be stored in the cloud for distributed solutions.

On the user end, by employing standards like HTML5, CSS3 and transferring data via JSON/REST,

client applications run rapidly without plug-ins.

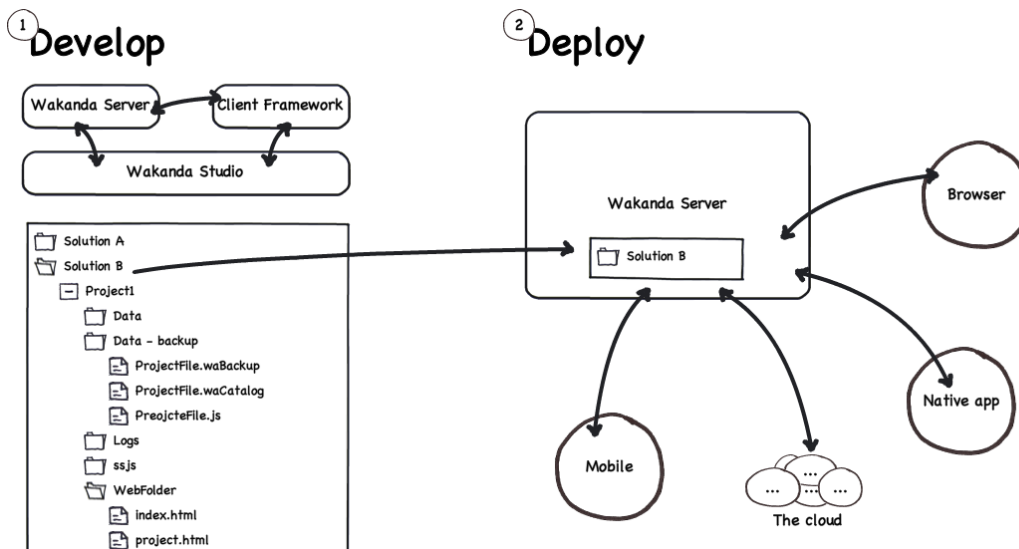


## Easy to Start

From beginning to end, Wakanda has been designed to be easy to start using and to deploy:

- On Windows or Mac, install Wakanda Server and Wakanda Studio simply by dragging and dropping them onto your machine.
- Create your model.
- Build web pages.
- Test and execute your apps with a single click in Wakanda Studio.
- Access the app from a browser.
- Administer the server from a browser.

Once you're satisfied with your final application, copy your files onto any machine - Windows, Mac, or Linux - running Wakanda Server, then access it via a browser.



1. Build your solutions using the entire platform for development and testing.
2. Copy the solution on to a production machine running Wakanda Server and your app will be available on desktop browsers, mobile, native apps, and even further afield in the future.

## Easy to Run

Whether a user is running a classic desktop browser like Firefox or Safari, a smartphone on Android, or an iPad running iOS they will have identical, high-performance user experience similar to native apps. All this is accomplished without the hassle of re-developing for each target thanks to the flexibility and compatibility of the Wakanda Client Framework.

See for yourself how easy it is to get started with Wakanda. [Download Wakanda now](#) (it's free!) and take a look at the **Quick Start** manual for an excellent tutorial detailing the steps to follow as well as many useful tips to better understand Wakanda.