



One of the very popular services on Azure is **WebApp**. Service managed by Microsoft, it can host web applications, REST APIs, but also backends for mobile applications.

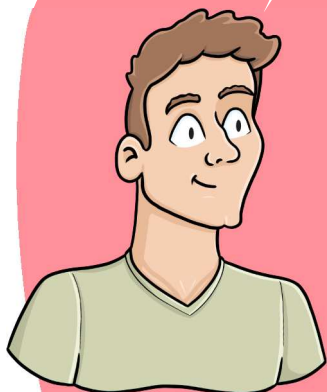
What explains its popularity?

On the one hand, it is the number of **supported languages and frameworks**: .Net, .Net Core, Java, Ruby Node.js, PHP and Python, whether on Linux or Windows OS.

But that's not all, you can also deploy on **containers** and even on **Static WebApps**, whose purpose is to host sites with static content (HTML, CSS, images, etc.)



Ouch, we can say that the product team is really active!



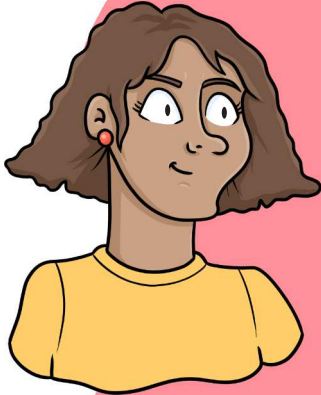
As you say. **WebApps** are deployed in resource pools called **App Service Plan (SP)**. **SP** can host both **WebApps** and **Functions** that are serverless compute services.

These **SPs** also offer **scaling**, that it can be manual, but more often automatic. Scaling is a mechanism used to automatically deploy new **WebApp** instances, based on configured thresholds.

Why ?

Just to **absorb** excess **traffic** or a **workload**. But don't worry, when everything is back to normal, the new **WebApp** instances are deleted automatically.

$$P = m \cdot V \quad T = 2\pi \sqrt{\frac{l}{g}}$$



The pricing tier of an **SP** defines both the **resources** (vCPU and Memory) but also the **functionalities**, and one of them, very useful, is the **deployment slot**.

A **slot** is an instance of the **WebApp** (it can have several). It can be used to perform tests or host a new version of the application before it is delivered to production and all this, **without any downtime** on the user side.

A **slot** can also be used to redirect a part of the traffic to a 2nd slot in order to test a new version of the application, which means that you can have **several versions of your application** in Production.



But it must be super complicated to rollback if necessary?!

Not at all, it's very easy. A simple click on the swap button allows you to return to a previous version.

And concerning the traffic **redirected** on 2 slots, it is enough simply to send all the **traffic** on your 1st slot.

The process is really smart, it allows you to **quickly** and **simply** test your application while **minimizing efforts** and the impacts on the user side.

Exactly, it greatly **simplifies the delivery process**, and it goes very well with **CI/CD workflows**.



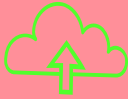


But can we perform backups and restores if necessary?



Yes, this feature is available from the **Standard pricing tier**, and backups are performed in a **storage account**. You can choose your own frequency and retention to apply.

Knowing that **WebApps** are a web service as its name suggests, we can also associate a **custom domain** name with it, and protect it with an **SSL/TLS certificate** that you can provide, or that you can buy directly at the level of the WebApp.



WebApps are awesome. Can we add some security on them, to limit the exposure of the service?

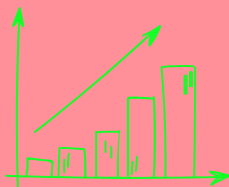
Absolutely, through 2 different ways, which can of course be combined.



The first one, is the implementation of **IP filtering**. This implies that only those whose IP or range of IP addresses have been fulfilled will be able to access your **WebApp**.



The 2nd one, is the activation of authentication. Today, different **Identity Providers (IdP)** are supported. This makes it possible, for example, to limit access only to a specific population of users.



I better understand the popularity of this service which offers many features, and yet we have not seen everything !!

Thank you !



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See you soon !

