Introduction to Azure Web Apps

By
Narasimha Rao T
Microsoft.Net FSD Trainer
tnrao.trainer@gmail.com

1. What is Azure Web Apps?

Azure Web Apps is a **Platform as a Service (PaaS)** offering from Microsoft Azure that allows you to host websites and web applications **without managing the infrastructure** like servers, operating systems, or hardware.

Think of it like this:

> *You write your website or app, and Azure takes care of running it, scaling it, and keeping it online.*

It's part of **Azure App Service**, which includes Web Apps, API Apps, Mobile Apps, and Function Apps.

2. Why Use Azure Web Apps?

Imagine you built a website. Instead of renting a physical server or setting up your own machine, Azure Web Apps lets you upload your code, and it takes care of:

- Hosting
- Security
- Updates
- Scaling
- Monitoring

All with just a few clicks!

3. Key Features of Azure Web Apps

1. Easy Deployment

- You can publish apps directly from **Visual Studio**, **GitHub**, or **Azure DevOps**.
- Supports **multiple deployment slots** (like staging and production).

2. Supports Multiple Languages & Frameworks

- .NET / .NET Core
- Java
- Node.js
- Python
- PHP
- Static HTML sites

3. Scalability

- Scale up (more resources) or out (more instances) easily based on traffic.
- Auto-scaling based on CPU or request load.

4. Built-in Security

- Custom domain support with **HTTPS/SSL**.
- Built-in **Authentication & Authorization** (connect to Google, Facebook, Azure AD, etc.)

5. Monitoring & Diagnostics

- Integration with **Application Insights** and **Azure Monitor**.
- View logs, errors, and performance metrics in real time.

4. Benefits of Using Azure Web Apps

Benefit	Description
Fast Setup	Get your website or app online in minutes.
Secure	Built-in security features like firewalls, SSL, and identity integration.
Reliable	99.95% SLA uptime. Your app stays online.
Automatic Updates	Azure handles OS patches and runtime updates.
Global Reach	Host your app close to your users for better performance.
Cost-Effective	Flexible pricing from free tier to enterprise-level hosting.

5. Common Use Cases

- Hosting business websites or blogs
- Creating REST APIs (e.g., for mobile apps)
- Running ecommerce websites
- Hosting dashboards or internal tools
- Testing apps using deployment slots (test before going live)

6. Key Concepts to Understand

Term	Explanation
App Service Plan	Defines the hardware resources (CPU, RAM) and pricing tier.
Resource Group	Logical container for grouping related resources.
Deployment Slots	Multiple live versions of your app (e.g., "staging" vs "production").
Scaling	Increasing app power based on usage (scale up/out).
Monitoring	Tracking performance and usage with tools like Application Insights.

7. Quick Example Scenario

- Imagine you're a student who built a portfolio website using ASP.NET.
- You can create an Azure Web App, upload your project, and make it available to the world within 5-10 minutes.
- No need to rent or configure a server—Azure handles it for you.

8. Summary

- **Azure Web Apps** is a cloud-based hosting service for web apps, websites, and APIs.
- You can deploy apps quickly, scale easily, and manage everything through a clean UI or Visual Studio.
- It's beginner-friendly but powerful enough for enterprise applications.
- Perfect for students, developers, startups, and large businesses alike.

Q & A