Azure App Service

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Azure App Service → HTTP based service for hosting web app, rest app's, mobile backend. (Windows + Linux Based)

* Features
1) Built in Auto Scale.
2) CI/CD Support.
3) Deployment Slots.

* App Service Plan.

It defines a set of compute resources for a web app to run. (one or more)
    It defines:-
      1) OS
      2) Region
      3) No. of VM
      4) Size of VM

   * Pricing Tier:-

1) Shared Compute:- (Free & Shared)
Runs an app on same Azure VM as other App Service apps, including other customers. Resources can't scale out.

2) Dedicated Compute:- (Basic, Standard, Premium, Premium V2 & Premium V3)
runs apps on dedicated Azure VMs. Apps share compute in the same Azure Service Plan. Scale out is possible

3) Isolated:- Isolated / Isolated V2 they run dedicated Azure VMs on dedicated Azure Virtual Networks. It provides network isolation + compute isolation.

* Deploy to Azure Service.
     (Automated deployment)
1) Azure DevOps Service:-

2° Github.
3° Bitbucket

(Manual deployment)

1° Git   4° FTP/S
2° CLI
3° Zip deploy

* (Use Deployment Slots)

(Swap Between staging & Production
                    slots)

※ Authentication & Authorization in App Service.

1° Build in authentication feature for App Service & Azure Functions.
    a° Integrate various auth Capabilities into your web app or API without implementing them yourself.
        a° Microsoft Entra ID
        b° Facebook
        c° Google.

• **Authentication flow**
a° Without provider SDK/Server directed flow: The application redirects the user to the provider's login page → Used for Browser Apps.

b° With providers SDK/Client-directed flow: Uses providers SDK to handle sign-in & then submits the token to the App Service.
Ex: Used for REST APIs, native apps.

• **Authorization behavior.**
a° Allow unrouted unauthenticated requests:
b° Requires authentication.

✱ Token Store.

Repository of tokens for users.

Available when you enable authentication with any provider.

✱ Logging & tracing.

Enables application logging, authentication & authorization traces are collected in your log files.

✱ Azure Service Networking features

. ᵧ Multitenant ~~Pat~~. App service (All plans except Isolated)

ᵧ Single tenant App service (Isolated)

Inbound address   (Outbound address.
                          ⌐ Possible Outbound
                             IpAddresses.

—— x ———————— x ———————

✱ Application settings

       connection strings
       API_Keys

SSL Settings

     → Buy Certificate (Needed for a production env.)

→ Monitoring

⊕ App Service Logs:

　　1. Application logging (Filesystem)
　　2. App logging　　　　(Blob)
　　3. Web server logging.
　　4. Detailed error messages
　　5. Failed request tracing.
　　6. Quota, retention period.

b. Diagnostic logs.
　　　　　→ log analytics.
　(can see in Monitor)

　(can use logs to run query &
　　　get the app logs)

　(log stream → realtime logs)