



# CLOUD DAY 2020

29 OTTOBRE • #CLOUDDAY2020



## AZURE STATIC WEB APPS WHAT'S THAT?

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# Kudos



**managed/designs**



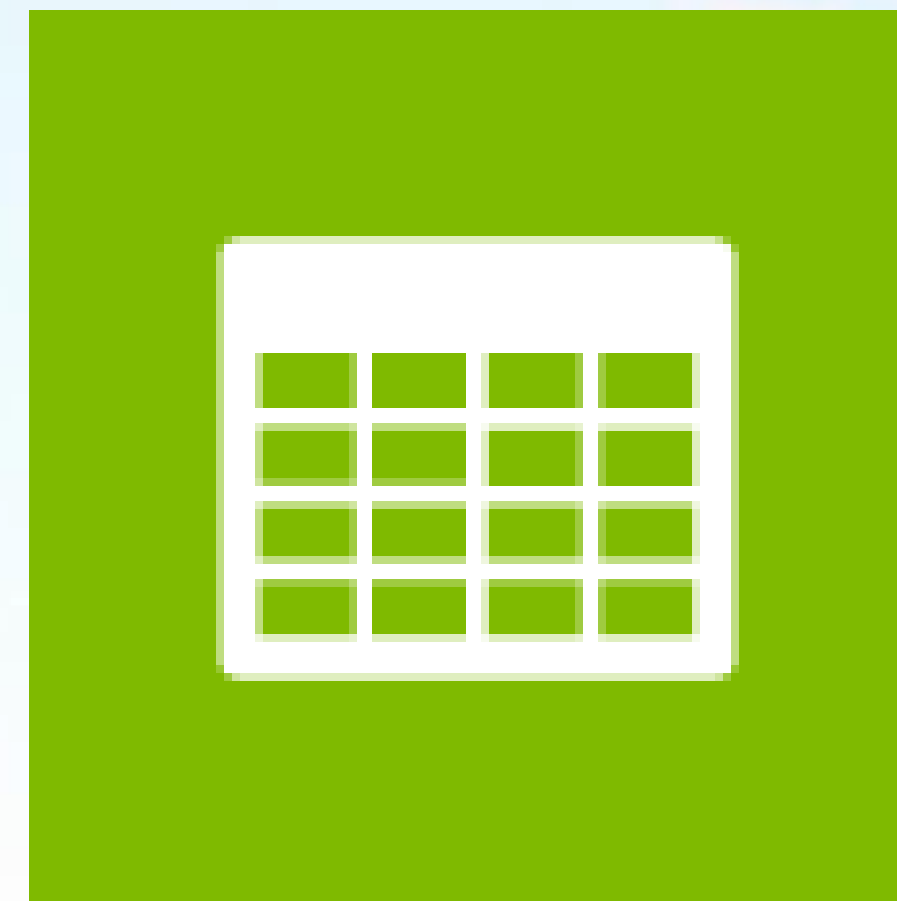
# Azure Static Web Apps?



Wait...for hosting static web apps there are already plenty of possibilities on Azure



App Service  
(web app)



Storage Account  
(\$web)

maybe  
combined with





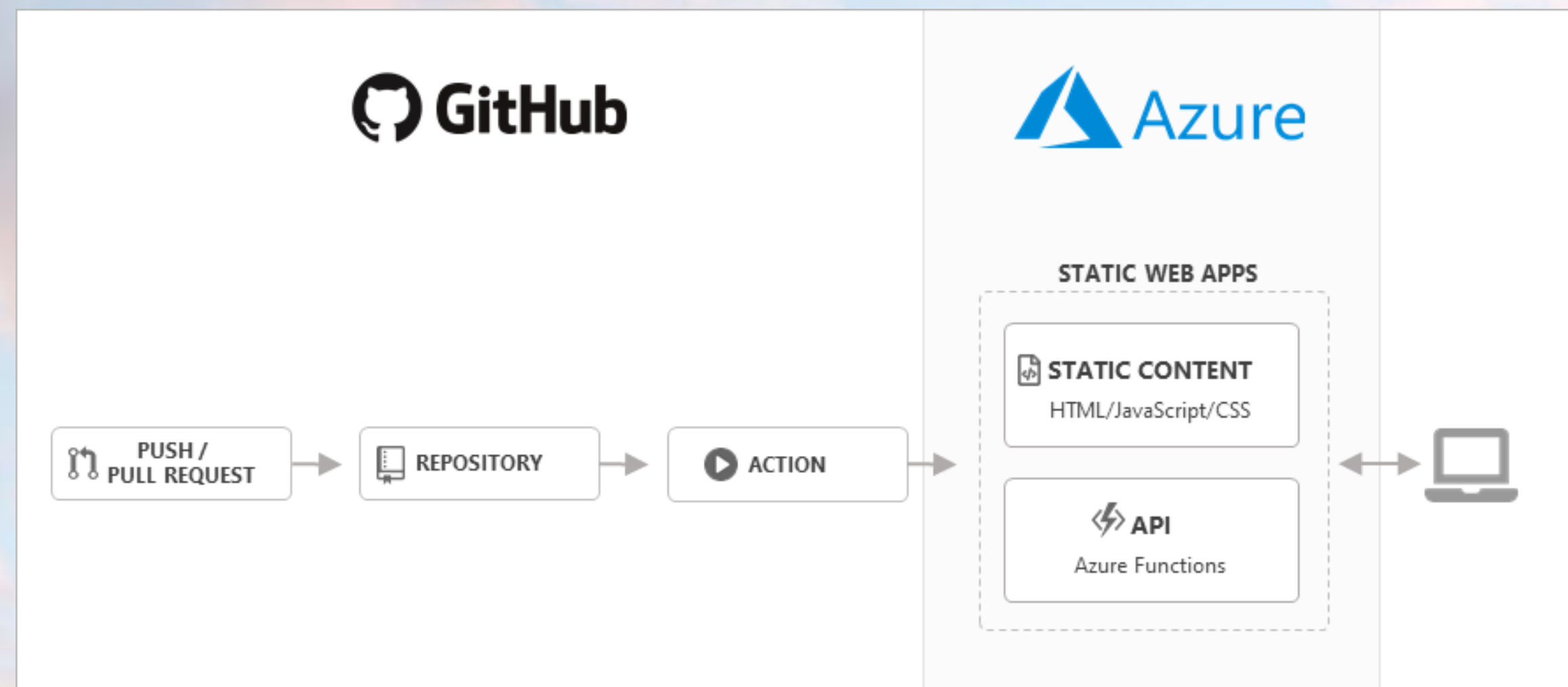
# Azure Static Web Apps (PREVIEW)



A modern web app service that offers streamlined full-stack development from source code to global high availability.

Source: <https://azure.microsoft.com/en-us/services/app-service/static/>

# Key Features

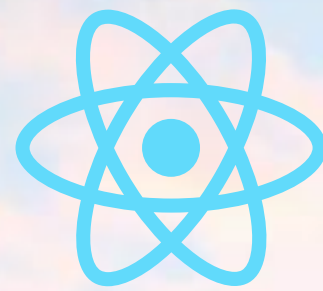


- Web hosting
- Integrated API
- First-class GitHub integration
- Globally distributed
- Free SSL certificates
- Custom domains
- Seamless security model ... no CORS configuration required when calling APIs
- Authentication provider integrations (Azure Active Directory, Facebook, Google, GitHub, and Twitter)
- Customizable authorization role definition
- Back-end routing rules
- Generated staging versions



# Predefined configurations

## Framework



## Static site generator



Custom: **Flutter**, Polymer, Preact, **Jekyll**, ...

More configuration examples at: <https://docs.microsoft.com/en-gb/azure/static-web-apps/front-end-frameworks>

# DEMO

## Configuration & Staging Environment



# Back-end routing rules

Routing defines back-end routing rules and authorization behavior for both static content and APIs.

The rules are defined as an array of rules in the ***routes.json*** file.

- The routes.json file must exist at the root of app's build artifact folder.
- Rules are executed in the order as they appear in the routes array.
- Rule evaluation stops at the first match, routing rules are not chained together.

```
// a sample routes.js containing a SPA fallback route
{
  "routes": [
    {
      "route": "/*",
      "serve": "/index.html",
      "statusCode": 200
    }
  ]
}
```

Rule Property	Required	Default value
route	Yes	
serve	No	
statusCode	No	200
allowedRoles	No	['anonymous']



# Integrated API

Azure Functions V3  
compatible



## Features

- **Integrated security:** direct access to user authentication and role-based authorization data.
- **Seamless routing:** makes the **api** route available to the web app securely without requiring custom CORS rules.

## Constraints

- The API must be a JavaScript, C# or Python Azure Functions app (no Java, F#, PowerShell right now).
- The API route prefix must be **api**.
- Triggers are limited to HTTP (input and output bindings are supported).

# DEMO

## Routes & API



# Authentication & Authorization

Azure Static Web Apps uses the `/.auth` system folder to provide access to authorization-related APIs

Authorization provider	Login route
Azure Active Directory	<code>/.auth/login/aad</code>
Facebook	<code>/.auth/login/facebook</code>
GitHub	<code>/.auth/login/github</code>
Google	<code>/.auth/login/google</code>
Twitter	<code>/.auth/login/twitter</code>

If you want a user to return to a specific page after login, provide a URL in `post_login_redirect_uri` query string parameter.

The `/.auth/me` route return info about the current user.

The `/.auth/logout` route logs users out from the website.

❖ consider creating routing rules to create friendly URLs.

# Roles

Every user who accesses a static web app belongs to one or more roles.

There are two built-in roles that users can belong to:

- **anonymous:** All users automatically belong to the anonymous role.
- **authenticated:** All users who are logged in belong to the authenticated role.

Beyond the built-in roles, you can

- create new roles
- assign them to users via invitations
- reference them in the routes.json file

```
{
  "routes": [
    // requires "administrators" role
    {
      "route": "/admin/",
      "allowedRoles": [ "administrators" ]
    },
    // disable twitter authentication provider
    {
      "route": "/.auth/login/twitter",
      "statusCode": 400
    },
    // SPA fallback
    {
      "route": "/*",
      "serve": "/index.html",
      "statusCode": 200
    }
  ]
}
```



# DEMO

Authentication & Authorization

# Pricing



“Static Web Apps is free during preview. Pricing for this service will be announced at a later date. You will be notified 30 days before billing begins.”

Cit from <https://azure.microsoft.com/en-us/pricing/details/app-service/static/>  
on 29/10/2020



# Thank You!

Slides and Demo source code available at  
<https://github.com/enosrecanati/CloudDay2020-AzureStaticWebApps>

get in touch

<https://twitter.com/enosrecanati>



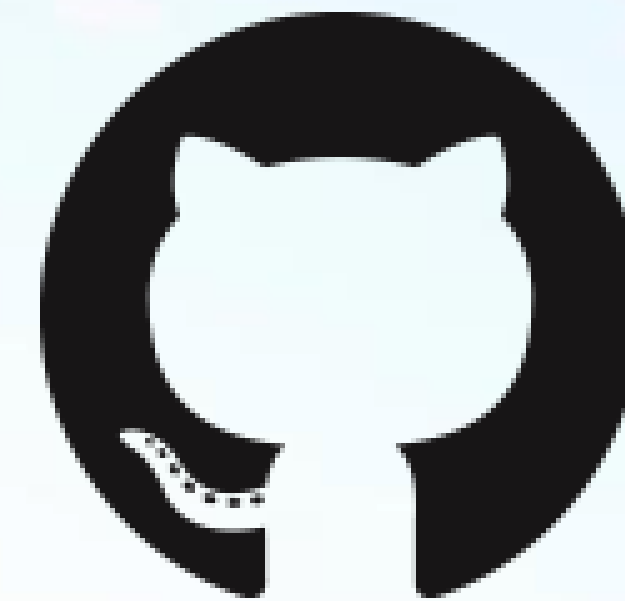
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