Kudos

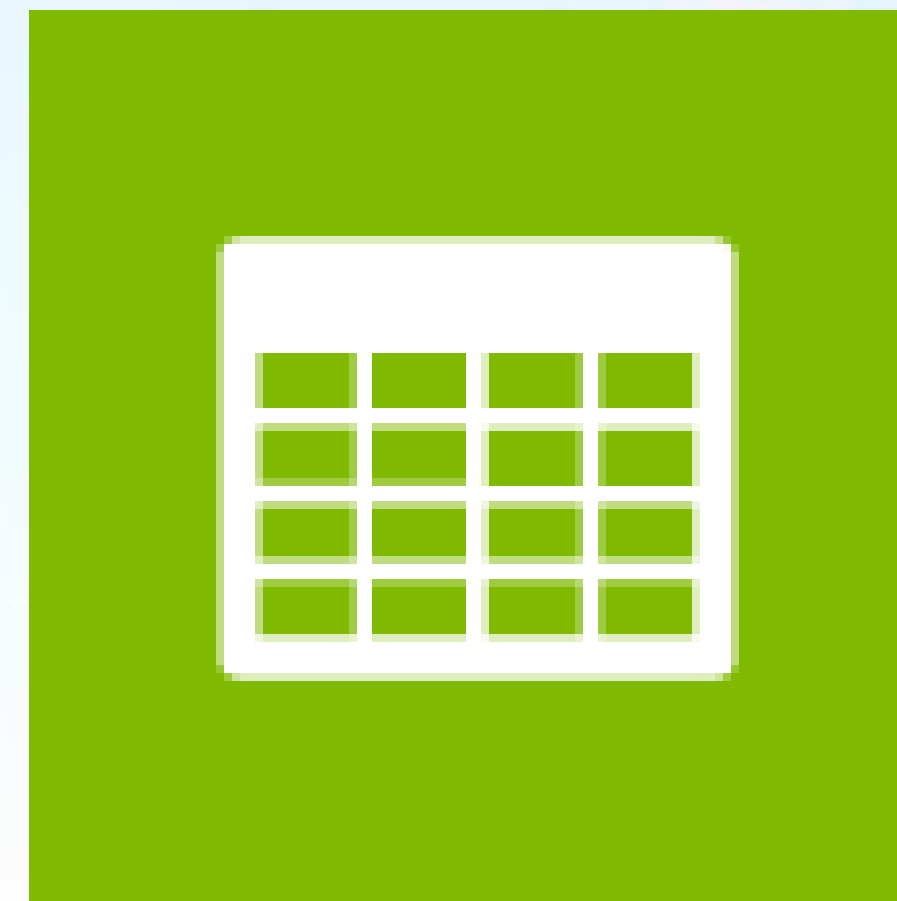# Azure Static Web Apps?

Wait...for hosting static web apps there are already plenty of possibilities on Azure
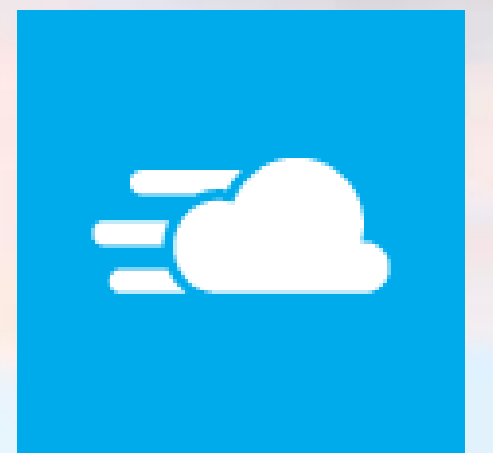
App Service
(web app)

Storage Account
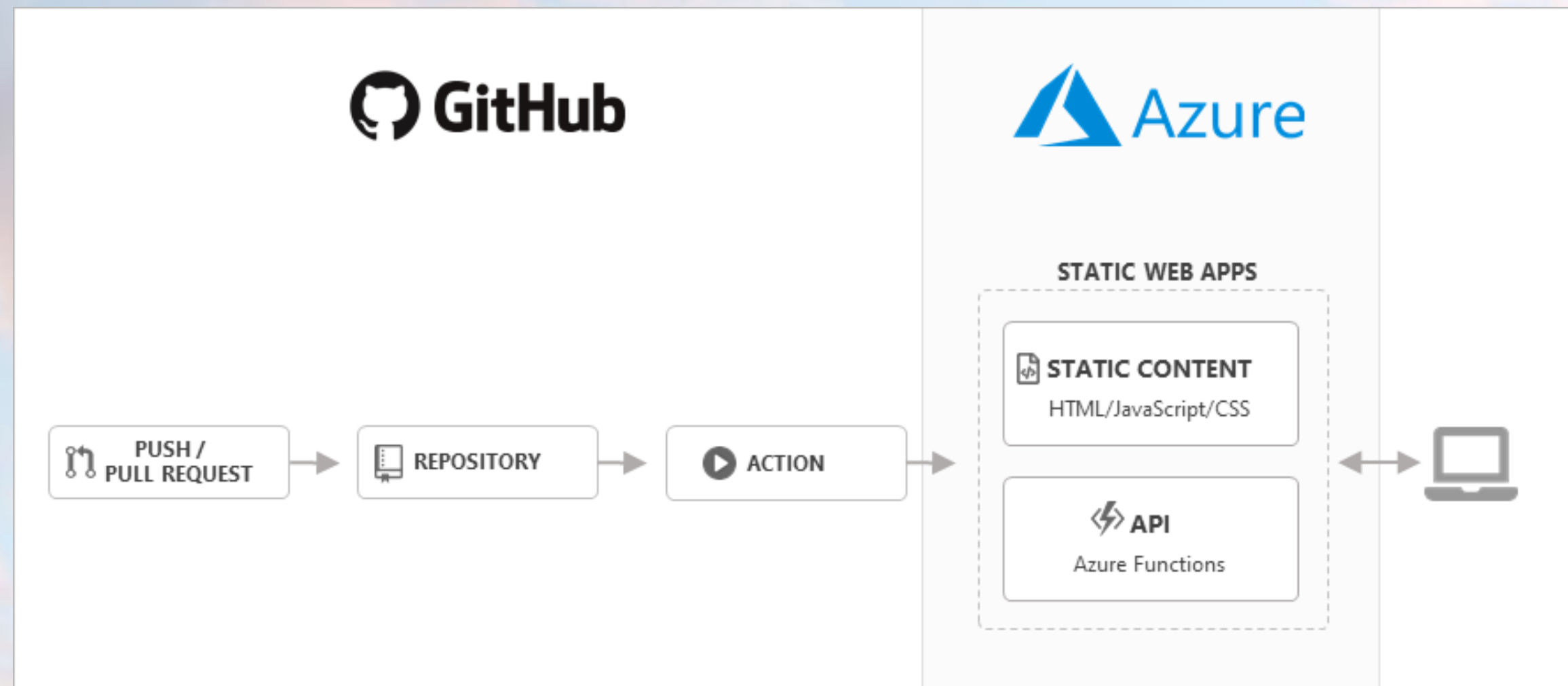($web)

maybe
combined with

CLOUD DAY 2020

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/

CLOUD DAY 2020

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
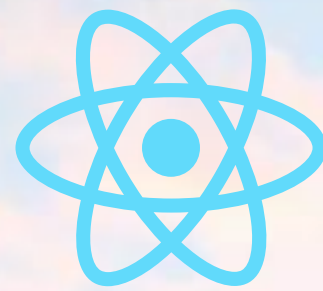
Static site generator

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

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.

```js
// 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	`/.auth/login/aad`
Facebook	`/.auth/login/facebook`
GitHub	`/.auth/login/github`
Google	`/.auth/login/google`
Twitter	`/.auth/login/twitter`

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

```json
{
    "routes": [
        // requires "administrators" role
        {
            "route": "/admin/",
            "allowedRoles": [ "admininistrators" ]
        },
        // 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-Demo

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