

# Creating and Publishing Your Own Configurable Apps for Your Organization

Ian Wittenmyer

Kelly Hutchins

# Content: Basic building block for Apps



Web Map

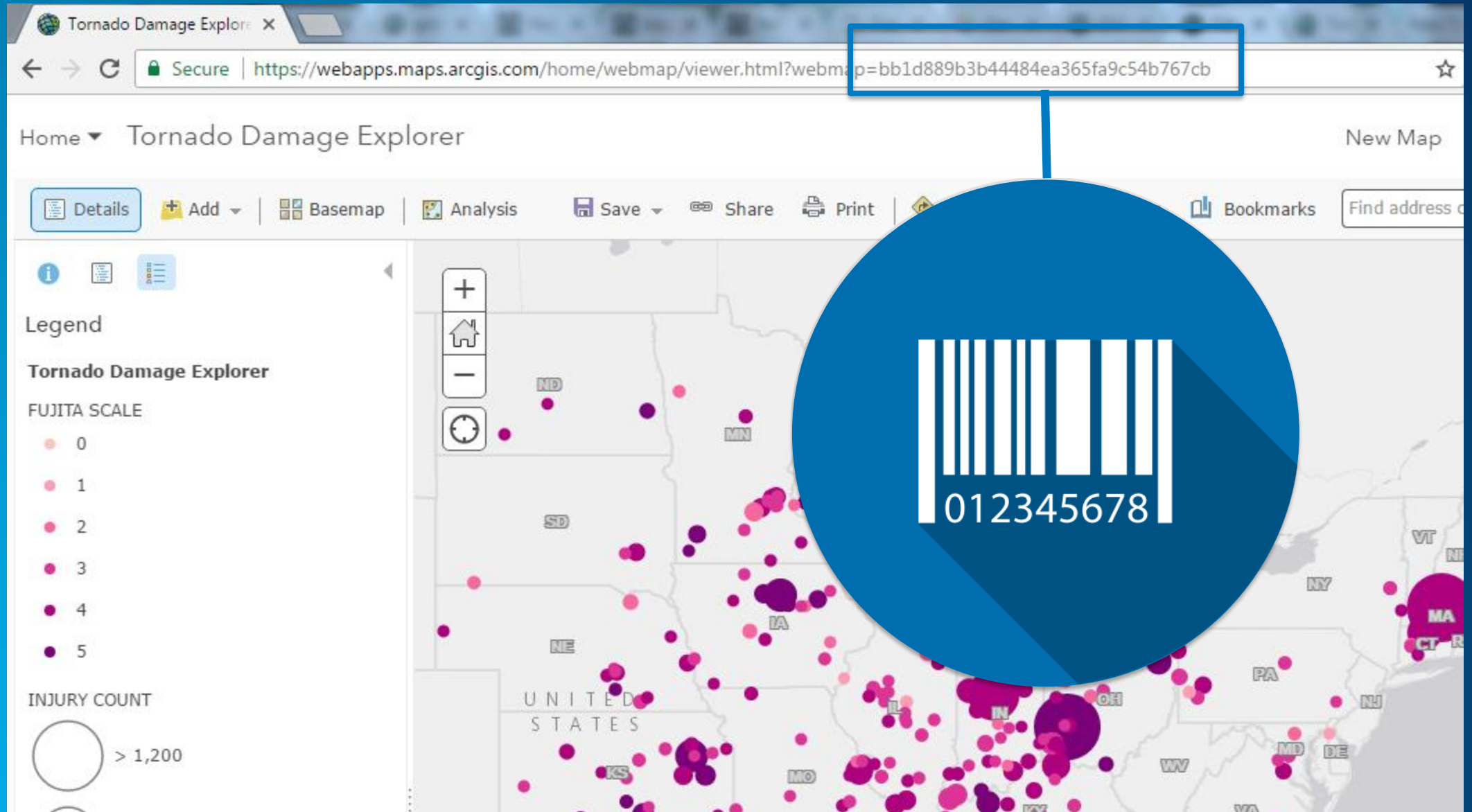


Web Scene



Group | Items

## ID: Each item of content has a unique identifier





# Web Maps/Web Scenes: JSON (Information + Data)

```
{
  id: "9569a8b938c746359c1b4aa490476506",
  owner: "sajitthomas",
  created: 1400838485000,
  modified: 1414506431000,
  guid: null,
  name: null,
  title: "Local Perspective Miami",
  type: "Web Map",
  typeKeywords: [
    "ArcGIS Online",
    "Explorer Web Map",
    "Map",
    "Online Map",
    "Web Map"
  ],
  description: null,
  tags: [
    "Miami"
  ],
  snippet: "Description of the map.",
  thumbnail: "thumbnail/ago_downloaded.png",
  documentation: null,
  extent: [
    [
      -80.7954,
      25.5832
    ],
    [
      -79.8801,
      26.0795
    ]
  ],
  spatialReference: null,
```

```
{
  - operationalLayers: [
    - {
      id: "Private_Schools_9256",
      layerType: "ArcGISFeatureLayer",
      url: "http://services.arcgis.com/80hk79qB8z45zcHi/arcgis",
      visibility: false,
      opacity: 1,
      title: "Miami Private Schools",
      itemId: "e26a54eb27c8426292929a9000232598",
      - popupInfo: {
        title: "{NAME}",
        - fieldInfos: [
          - {
            fieldName: "FID",
            label: "FID",
            isEditable: false,
            tooltip: "",
            visible: false,
            - format: {
              places: 0,
              digitSeparator: true
            },
            stringFieldOption: "textbox"
          },
          - {
            fieldName: "OBJECTID",
            label: "OBJECTID",
            isEditable: true,
            tooltip: "",
            visible: false,
            - format: {
              places: 0,
              digitSeparator: true
            }
          }
        ]
      }
    }
  ]
}
```

# Built-in configurable apps



# What are configurable apps?

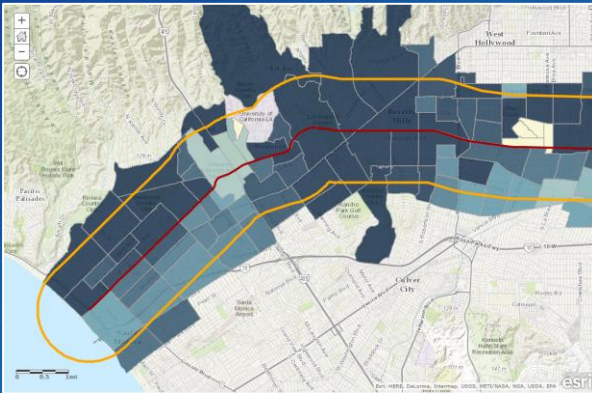
- Hosted apps maintained by Esri in the cloud
- Designed for you to *configure* – no programming needed
- Fastest and easiest way to go from a map to a shareable app
- Work with different types of content



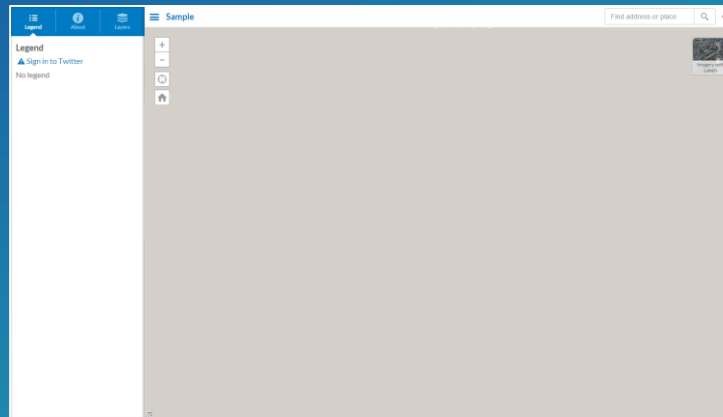


# Apps are the user experience

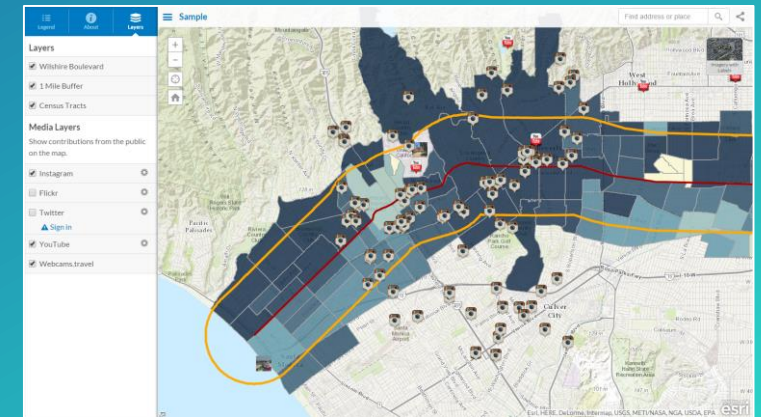
- Present map information and tools in meaningful ways
- Configure to reach target audience
- Support workflows and workforce tasks



Map



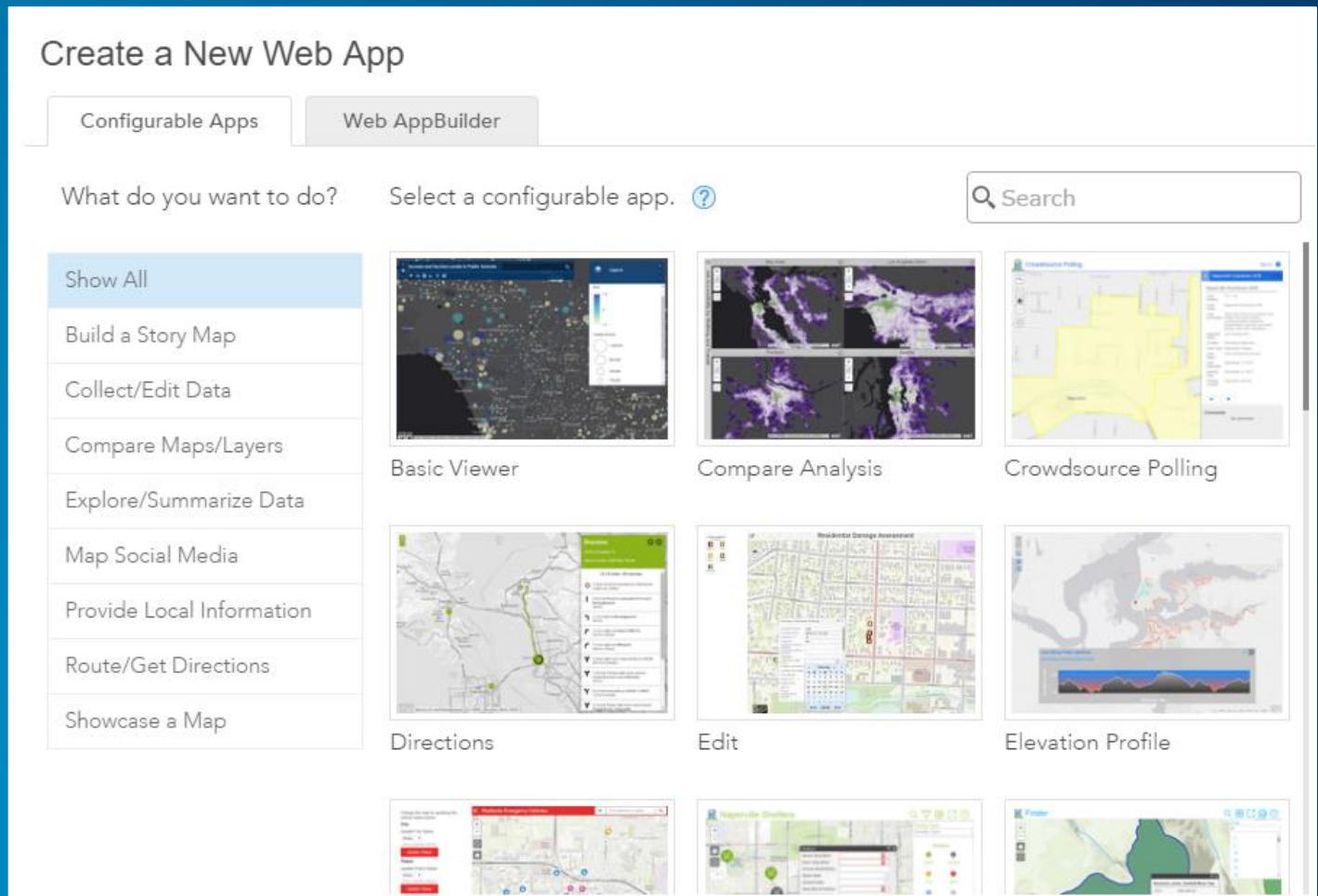
App template



Configured application

# What do you want to do?


- Build a story map
- Collect/edit data
- Compare maps/layers
- Display a Scene
- Explore/summarize data
- Make a Gallery
- Map social media
- Provide local information
- Route/get directions
- Showcase a map





# Configure app

GeneralThemeOptionsSearch



Income and Vaccine Levels in California Public Schools

Select Web Map

Application title

Income and Vaccination

Application subtitle

Relationship within California's publi schools

Details Edit

Enter content for the details panel

☐ Splash Screen

Accessibility Options

The primary purpose of alternative map text is to be read by screen readers to allow the content and function of the map to be accessible to users with visual or certain cognitive disabilities. For more information see this article on [Alt Text](#).

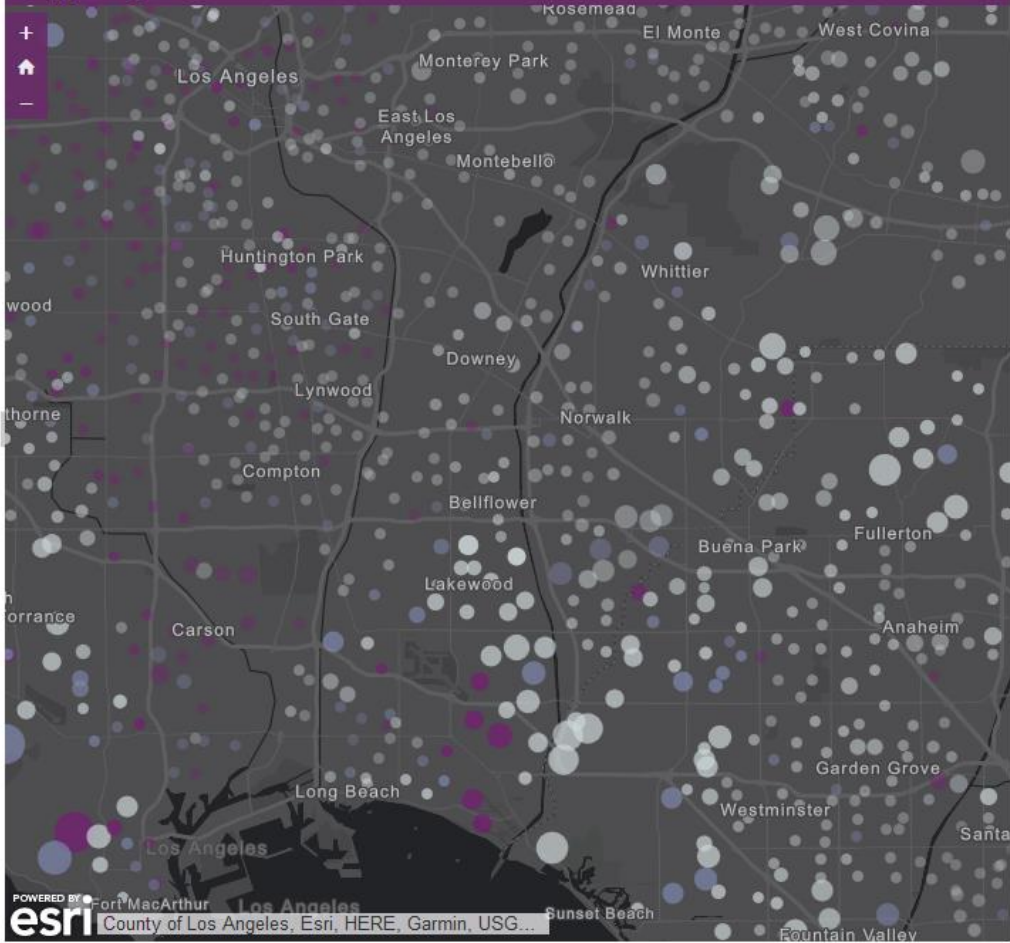
Alternate Map Text Edit

Define text that will be read by screen reader

Configure: Income and Vaccine Levels

Income and Vaccination

Relationship within California's p...



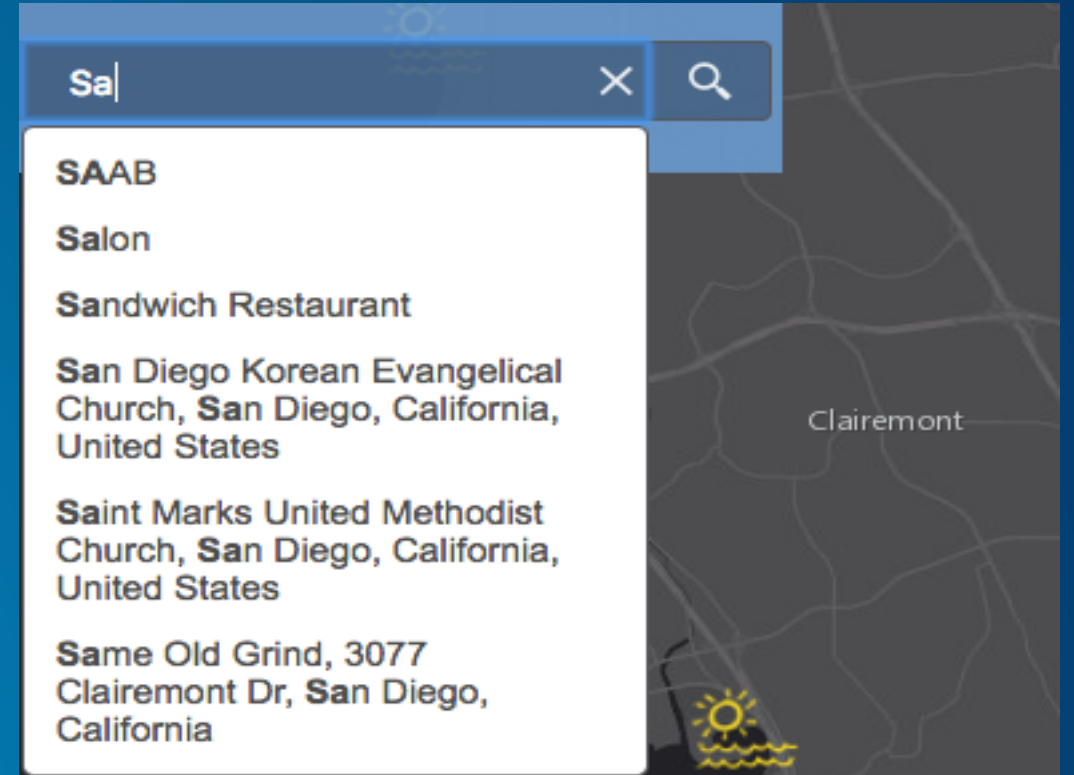
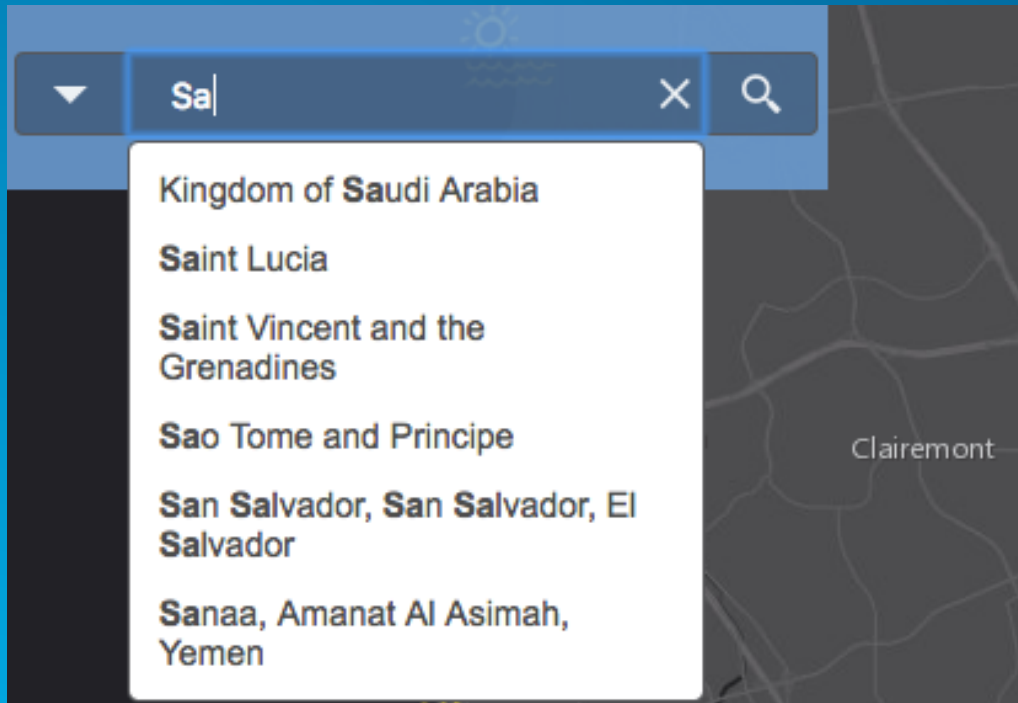
esri

Save

Launch

Close

# Constrain search within map



# App Design Considerations

- **Shared theme:**
  - **Color Contrast Analyzer** <http://webaim.org/resources/contrastchecker/>
  - **Logo** – transparent background
- **Usability:**
  - **Focus on the purpose of your app.**
    - Who is it for and what do they need to learn from your app?
- **Unified Search**



# Shared Theme settings

## Shared Theme



Use the shared theme to apply your organization's brand colors and logo to information products created from configurable app templates, Story Maps, Web AppBuilder, and to your Open Data sites. Define the shared theme of your organization using the color pickers and logo options below.

**Header:** Sample Text

Text Color:



Background:



**Body:** Sample Text Sample Link

Text Color:



Background:



Link Color:



**Button:** Sample Text

Text Color:



Background:



**Logo:**

Specify a logo image by entering a URL reference or by uploading an image file that will be stored as a public item in your content. Optionally, you can make the logo clickable by entering the target website URL in the Logo Link box.

Logo  
Image:

<https://nw-brews.mapsdevext.arcgis.com/sharing/rest/content/items/f27b1facce704698b82fa3abb39730b5/dat>

UPLOAD LOGO

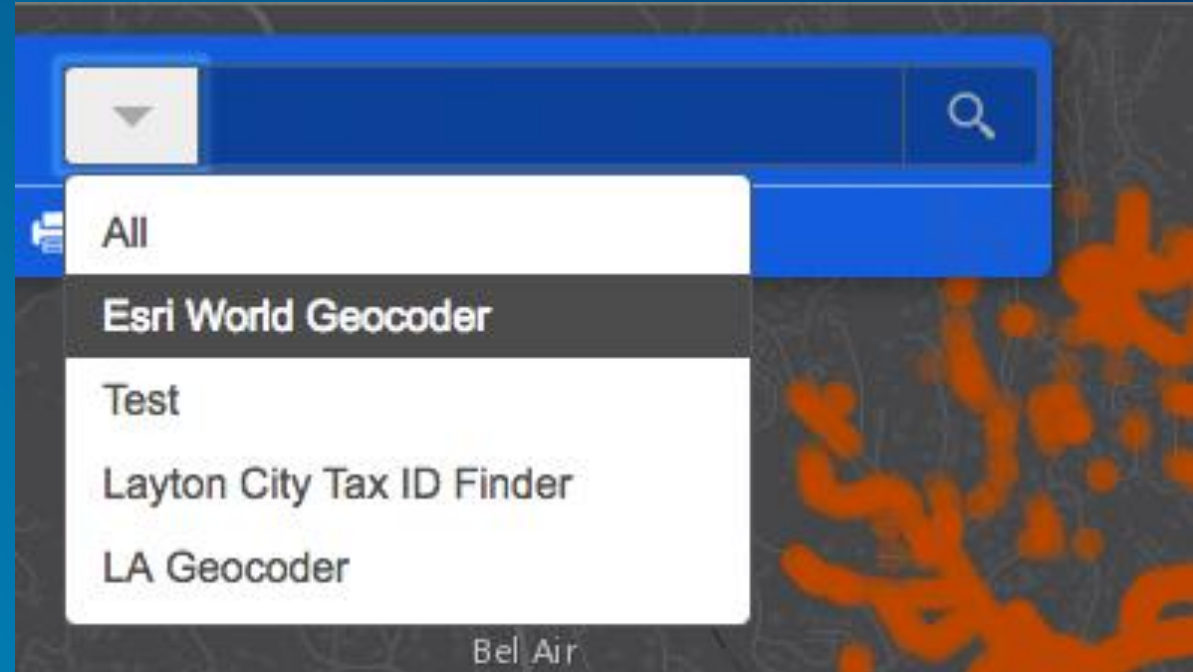
Logo Link:

Set a click-through link for your logo: <https://example.com/>

# Search

## Configuration Options

- Multiple searches
- Place holder text
- Name
- Search within extent
- Country code



## Suggestions

- 10.3 geocoding service with suggest capability
- 10.3 feature layer supports pagination.

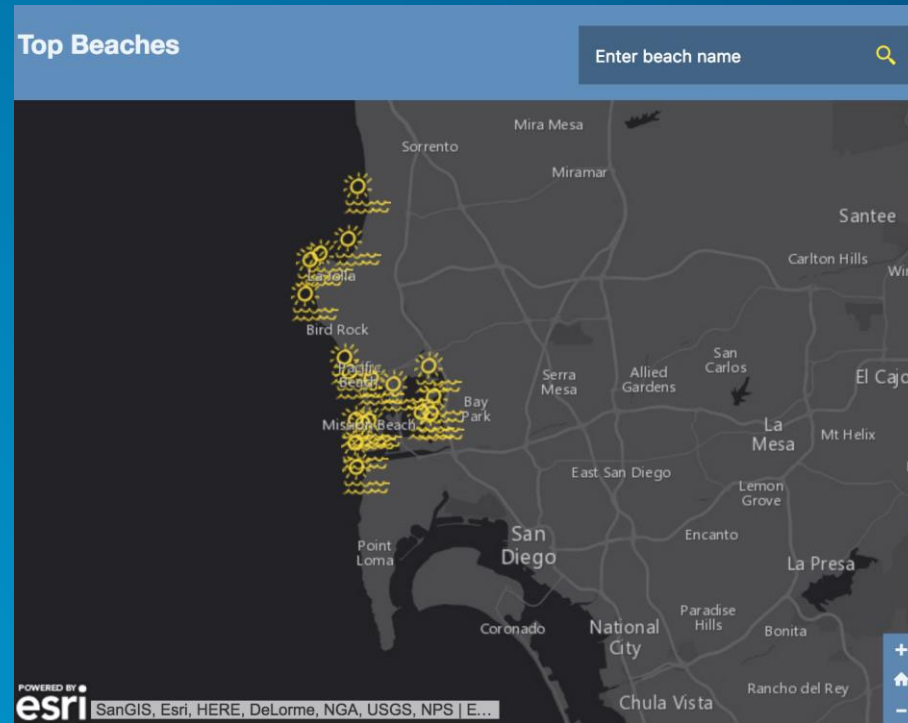
Display suggestions using

☐ Field ☒ Template

Suggestion Template

`${NAME} : ${ADDRESS}`

# Custom CSS







# Built-in demo


Customize configurable app

# Custom Configurable Apps



# Create a custom app

- New App Item
  - Purpose: Configurable
  - URL
  - Title

Application 

×

Add an item from your computer or reference an item on the Web.

Type: ☒ Web Mapping ☐ Mobile ☐ Desktop ☐ Application  
☐ Application Extension (Operations Dashboard)

Purpose: 

Configurable ▾

 API: 

JavaScript ▾

URL: 

https://kellyhutchins.github.io/TSSamples\_JSAPI/WebMapHover/sc

Title: 

Hover Popup

Tags: 

Custom App ×

Add tag(s)

ADD ITEM

CANCEL



# Make your app configurable

- Configuration options

Use the Select Web Map button to se



Select Web Map

☒ Legend

☐ Home

☒ Info

☒ Basemap Toggle

Alternate Basemap

Streets ▼

```
- configurationSettings: [
  - {
    category: "General",
    - fields: [
      - {
        type: "webmap"
      },
      - {
        type: "approxies"
      },
      - {
        type: "boolean",
        fieldName: "legend",
        label: "Legend"
      },
      - {
        type: "boolean",
        fieldName: "home",
        label: "Home"
      },
      - {
        type: "boolean",
        fieldName: "info",
        label: "Info"
      },
      - {
        type: "conditional",
        condition: false,
        fieldName: "basemapToggle",
        label: "Basemap Toggle",
        - items: [
          - {
            type: "basemaps",
            fieldName: "altBasemap",
            tooltip: "Select the alternate basemap",
            label: "Alternate Basemap"
          }
        ]
      }
    ]
  },
],
- values: {
  legend: true,
  basemapToggle: true,
  home: false,
  info: true
}
```


# Add to gallery

- Create Custom Group
- Share app to group
- Org Admin set as Gallery Group

☐ Allow this Bing key to be used in maps shared publicly by organization members.

---

### Configurable Apps



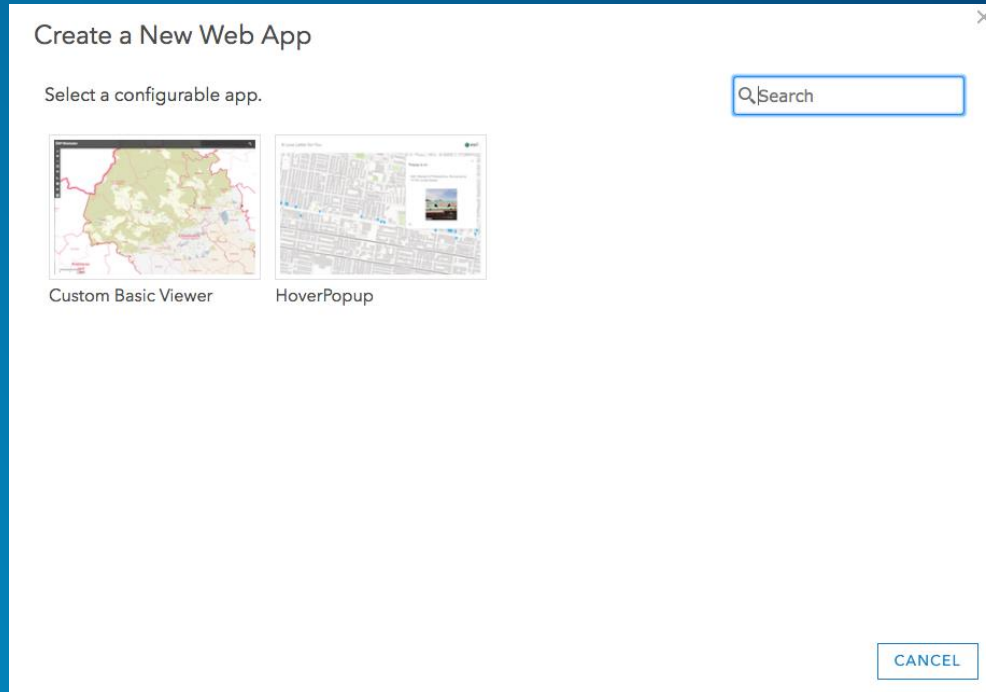
Configurable apps contain various settings users can configure to create web apps. Map-based apps display one or more maps. Choose which group contains the apps you want to use in the configurable apps gallery.

Custom UC2017 App Group ▾ Sorted by: Title ▾ ☒ Ascending

☐ Share the Esri default configurable apps to this group when you click Save.

# Create app based on custom configurable app

- **Select configurable app**
- **Specify config options**
- **Save**





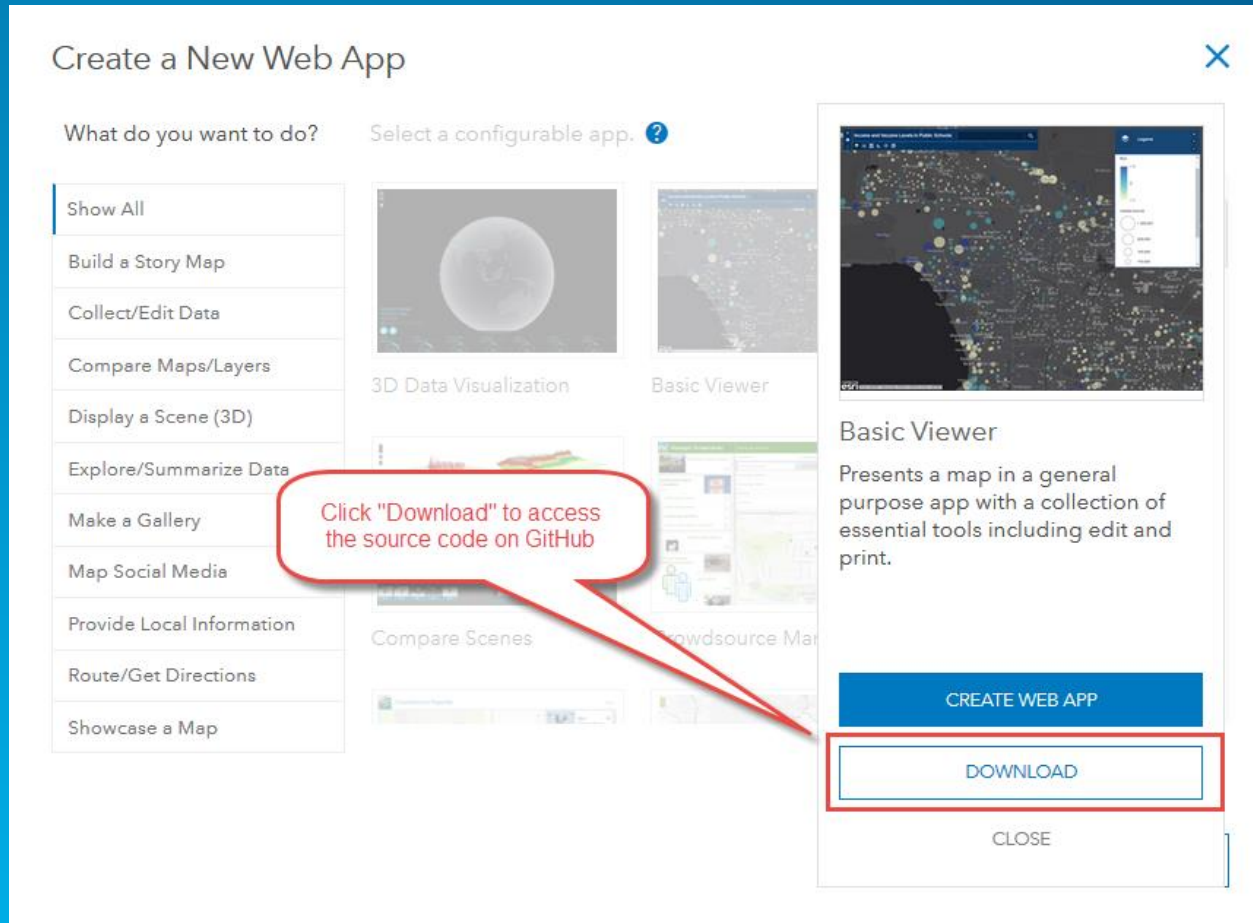
## What is saved?

```
{  
  source: "c7b9fa239f354274a99dd244d41cb648",  
  folderId: "2d4ca0b4bd454e29884e65e94efcdaed",  
  - values: {  
    legend: true,  
    basemapToggle: true,  
    home: false,  
    info: false,  
    webmap: "9babea4a8f864e9db73cc01572dd7304"  
  }  
}
```

# Create a custom configurable app

- **Modify configuration for existing app**
- **Download, customize and host**
- **Build your own app**

# Get Out-of-the-box app source code



Create a New Web App

What do you want to do? Select a configurable app. ?

- Show All
- Build a Story Map
- Collect/Edit Data
- Compare Maps/Layers
- Display a Scene (3D)
- Explore/Summarize Data
- Make a Gallery
- Map Social Media
- Provide Local Information
- Route/Get Directions
- Showcase a Map

3D Data Visualization

Basic Viewer

Basic Viewer

Presents a map in a general purpose app with a collection of essential tools including edit and print.

CREATE WEB APP

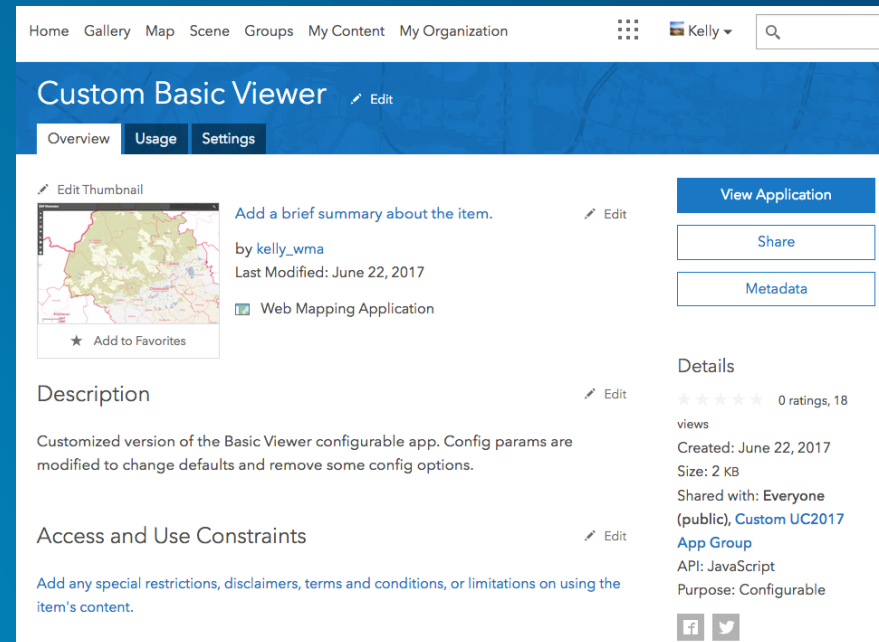
DOWNLOAD

CLOSE

Click "Download" to access the source code on GitHub

# Modify appearance or defaults of existing app

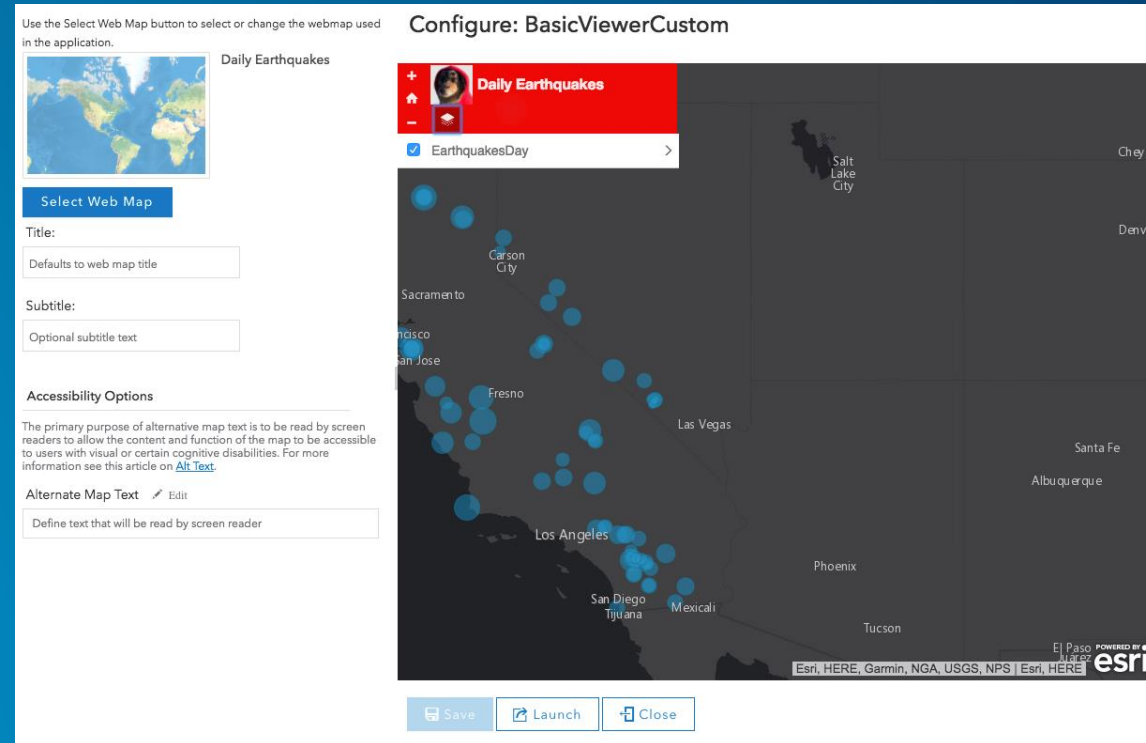
- Simple Customizations
  - CSS
  - Defaults
- Provide url to existing app
- Modify default config options





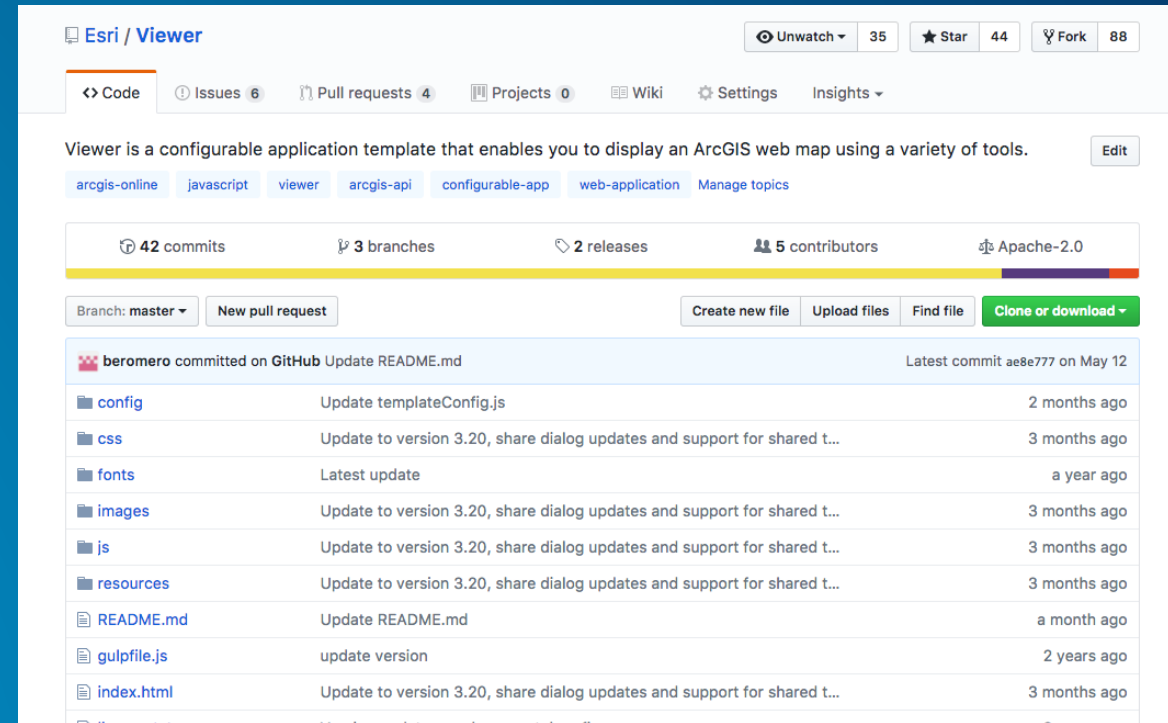
# Configuration changes

- **Modified default values**
  - Color
  - Logo
  - Disabled tools
  - Removed config options



# Download and Customize

- More advanced customizations
  - Add new tool
  - Modify app logic
- Requires that you host app





# Write your own Configurable App

- Helper class
- Examples

The image shows two overlapping screenshots of GitHub repository pages. The top screenshot displays the 'Esri / application-base-js' repository, which has 10 stars and 1 fork. The bottom screenshot displays the 'Esri / configurable-app-examples-4x-js' repository, which has 14 stars and 0 forks. Both repositories are maintained by 'kellyhutchins' and are in the 'master' branch. The bottom repository's commit history is visible, showing a series of updates to various application examples.

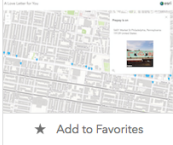
Commit	Message	Time
ApplicationBase @ de91e87	fix defaults export	a month ago
group-js	Update index.html	2 days ago
group-ts	Update index.html	2 days ago
tsrules	update package, grunt, tslint	2 months ago
webmap-js	Update index.html	2 days ago
webmap-ts	Update index.html	2 days ago
webscene-js	Update index.html	2 days ago
webscene-ts	Update index.html	2 days ago
.editorconfig	add files	2 months ago
.eslintrc	add files	2 months ago
.gitattributes	add files	2 months ago


# Custom App Example

[Home](#) [Gallery](#) [Map](#) [Scene](#) [Groups](#) [My Content](#) [My Organization](#)   Kelly

## HoverPopup


[Overview](#) [Usage](#) [Settings](#)



 Edit Thumbnail


★ Add to Favorites

Custom configurable app for UC2017 demo

 Edit

by [kelly\\_wma](#)

Last Modified: June 22, 2017






 Web Mapping Application

View Application

Share

Metadata

Details

     0 ratings, 21 views



Created: June 22, 2017


Size: 1 KB


Shared with: [Everyone \(public\)](#), [Custom UC2017 App Group](#)


API: JavaScript


Purpose: Configurable


Owner 

 [kelly\\_wma](#)


Folder 

Description 

Custom configurable app for UC2017 demo. Source code can be found on [GitHub](#).

Access and Use Constraints 

Add any special restrictions, disclaimers, terms and conditions, or limitations on using the item's content.

Comments (0) 

Leave a comment.





esri

THE  
SCIENCE  
OF  
WHERE