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# This tutorial

In this tutorial, you will create a Web GIS app that introduces the main points of interest (POIs) in the City of Redlands, California.

**Data:** A CSV file contains data for the main POIs in Redlands, including longitude, latitude, names, descriptions, photo or video URLs, and thumbnail URLs.

The sample data for this entire book are available at **esri.com/gtkwebgis3**. Windows users can extract the files to C:\EsriPress. Mac users can create an EsriPress folder under your home directory and extract the files there. If you are in class, follow your instructor's instructions to download the data.

**Requirements:**
- Your web app should display a basemap (a street map or satellite imagery) of the city and POI locations, along with their descriptions and photos or videos.
- The web app is engaging and easy to use.
- The web app should work on desktops, tablets, and smartphones.

**System requirements:**
- Microsoft Excel or a text editor to create and edit your CSV data.
  - CSV easily represents points, though not complex geometric forms such as lines and polygons.
  - Excel automatically maintains correct CSV format (for example, adding correct quotes).
- A web browser.
- ArcGIS Online or Portal for ArcGIS.
  - A publisher or administrator level account: If your organization offers ArcGIS Online for Organizations or Portal for ArcGIS, ask your administrator or instructor to create an account for you. Otherwise, create a free trial account. Creating a trial organizational account will make you the administrator of the organization, which will allow you to create hosted feature layers.
- 📒 **Note to instructors:** Optionally, you can create a group for your students in which they can share their work with other members.

# 1.1  Create an ArcGIS Online trial account

You will skip this section if you already have an account for ArcGIS Online or Portal for ArcGIS.

If your organization has ArcGIS Online for Organizations or Portal for ArcGIS, please ask your administrator or instructor to create an account for you.

1. Open your web browser, navigate to **http://www.esri.com/arcgis/trial**.

2. Fill out the Sign Up for the ArcGIS Trial form:
   - Input your name, email, and other requested information.
   - Click Start Trial to submit the form. You will know the form has submitted correctly when a new page comes up that reads, "Confirmation email sent!"

Esri will send you a confirmation email for you to activate your account.

3. Check your email and click the activation URL link in the Activate Your Free ArcGIS Trial email.

4. On the activation page, fill in the fields, accept the terms and conditions, and click Create My Account.

Having created an ArcGIS Online for Organizations trial account, you have been made the administrator for your organization. You will be directed to the Set up Your Organization page.

5. On the Set up Your Organization page, fill in the fields. Then click Save and Continue. (Do not select Allow access to the organization through HTTPS only.)

Refer to the "Questions and answers" section for details on the HTTPS only option.

6. If prompted with the pop-up window asking if you want to download ArcGIS Pro and other software, click Continue with ArcGIS Online.

You will need ArcGIS Pro later in this book, but not now.

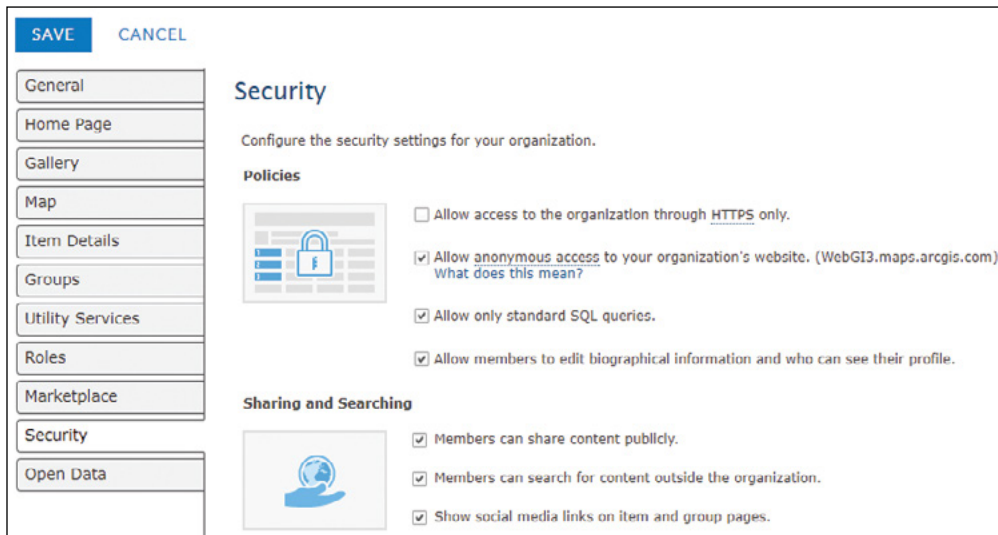7. Click the Organization tab, click Editing Settings, click Security, and select Allow anonymous access to your organization's website.

This setting will allow your instructor to see your homework anonymously. Otherwise, your instructor will need to have an account in your trial organization to see your layers, maps, and apps.

8.  Click Save.

You have successfully created your trial organization account.

# 1.2  Create a hosted feature layer

Certain configurable apps require certain kinds of data content. The Story Map Tour template, for example, requires a layer of points. The layer should have the locations, captions, descriptions, photos or videos, and thumbnails associated with the tour points. You can organize your data in a CSV or point shapefile, feature service, map service, or other formats. This section will create a hosted feature layer for using in the web map and web app.

1.  If you have not already done so, navigate to **esri.com/gtkwebgis3**, or follow your instructor's directions to download the sample data for this book. Extract the files to C:\EsriPress on a PC or to EsriPress under your home directory on a Mac.

This tutorial works for both PCs and Macs, though the lab data directories differ on them. To simplify the tutorial instructions, the following tutorial mentions the data directory on the PC only.

2.    In Microsoft Excel, navigate to C:\EsriPress\GTKWebGIS\Chapter1\Locations .csv, and study its data format.

| Name | Caption | Icon_color | Long | Lat | URL | Thumb_URL |
|------|---------|------------|------|-----|-----|-----------|
| Welcome to the City of Redlands | Located about 60 miles east of Los Angeles, replete with cultural, artistic and historical sites. Redlands, emerging as a regional leader, boasts small-town charm, and features a world center of geospatial information technologies.  (\<i>\<a href="http://en.wikipedia.org/wiki/Redlands,_California" target="_blank">More info</a></i>) | R | -117.182421 | 34.055448 | https://googledrive.com/host/0BwLwen7VgLIFdW5uemtLeDJ0S3c/Cover.JPG | https://googledrive.com/host/0BwLwen7VgLIFMUk4UUZ0Q2d6YWM/cover.png |
| Esri | Headquartered in Redlands, Esri is a world leader in GIS software. Founded by Jack and Laura Dangermond in 1969, Esri now has 10 regional offices in the U.S. and a network of 80 international distributors, with about a million users in 200 countries. (\<i>\<a href="http://www.esri.com" target="_blank">Website</a></i>) | R | -117.195688 | 34.056932 | https://googledrive.com/host/0BwLwen7VgLIFdW5uemtLeDJ0S3c/Esri.JPG | https://googledrive.com/host/0BwLwen7VgLIFMUk4UUZ0Q2d6YWM/esri.png |

This file has the main POIs in the City of Redlands. You will examine the sample data to familiarize yourself with the required fields. The first row of your spreadsheet provides the header. Below that, each row contains one tour point. For each point, the Story Map Tour template expects the following fields:

- **Name:** A short name identifying the point.
- **Caption:** A description of the point. Keep it short (less than 350 characters is recommended). The caption can include HTML tags to format the text or provide hyperlinks.
- **Icon_color (optional):** The color of each point. The valid values—R, G, B, and P—indicate red, green, blue, and purple, respectively.
- **Geographic Location:** You can describe geographic location by specifying longitude and latitude as Long and Lat (in decimal degrees), a single Address field containing a complete street address, or multiple fields (such as Address, City, State, and ZIP). This tutorial uses Long and Lat.
- **URL:** The full web address for the full-size image or video, starting with http://, https://, or //. The recommended image size is 1000 × 750 pixels, but other sizes will also work.
- **For videos:** The template does not include a generic video player. Instead, you will use the URL that a video hosting service, such as YouTube, provides for embedding videos via a link. You will append **#isVideo** to the end of the URL (for example, **http://www.youtube .com/embed/RM0eMdrPhEA#isVideo**). For YouTube videos, you will right-click the video being played, click Copy Embed Code, paste the code into Notepad, find the URL in the code, and append **#isVideo** to the end of the URL.
    - To use photos or videos on your computer, you must first upload them to some form of online storage, such as Flickr, YouTube, or your own web server.
    - If you have not yet collected your own images and videos, you can search for media through search engines and then copy their URLs. For images: Right-click an image. Select Copy Image Location in Firefox or Copy Image URL in Chrome. For Internet Explorer, select Properties and then copy the image address URL.
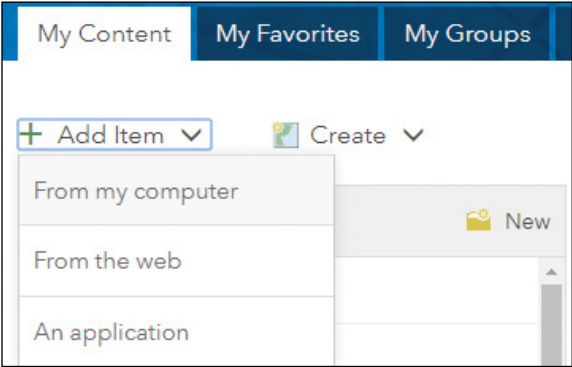
- **Thumb_URL:** The full web address of the thumbnail image (starting with http://, https://, or //). Images can fit to scale, but the recommended image size is 200 × 133 pixels.

3.  Open a web browser, navigate to ArcGIS Online (**www.arcgis.com**) or your Portal for ArcGIS, and sign in.

Home   Gallery   Map   Scene   Groups   Content   Organization                     ▦      GTKWebGIS ⌄   Q

You can familiarize yourself with the links at the top of the page:
- Home returns to the homepage.
- Gallery leads to featured maps and apps.
- Map goes to ArcGIS Map Viewer.
- Scene goes to ArcGIS Scene Viewer.
- Groups takes users to the My Groups page where you can create and join groups.
- Content links to the Content page, where you can see your own content, your groups' content, and your organization's content that are shared with you. Users with corresponding privileges can add and delete content items.
- Organization leads you to a page about your organization. If you are an administrator of your organization, the page includes tools you can use to manage your organization.
- In the upper-right corner of the page, the Search box and button allow you to search for content in the ArcGIS Online catalog.

4.  Click Content.

5.  Click Add Item ✚, and then click From my computer.

| My Content | My Favorites | My Groups |
|---|---|---|

✚ Add Item ⌄        🖼 Create ⌄

From my computer
                                     📂 New
From the web

An application

6. In the Item from my computer window, perform the following tasks:

- For File, browse to C:\EsriPress\GTKWebGIS\Chapter1\Locations.csv, and click it. If you have published a file of the same name to your content before, rename your Locations.csv file to a unique name, and then select it.
- For Title, use the default, or specify a new one.
- For Tags, specify keywords, such as **Redlands Tour**, **GTKWebGIS**, and your organization name, as illustrated. Separate the keywords with commas.
- Make sure the check box next to Publish this file as a hosted layer remains selected.
- Leave the Use Latitude/Longitude option selected.
- Review the field types and location fields.
- Click Add Item.

Item from my computer ❓

Add an item from your computer.

File:

| Choose File | Locations.csv |

Title:

Locations

Tags:

Redlands Tour ✕  GTKWebGIS ✕

Add tag(s)

☑ Publish this file as a hosted layer. (Adds a hosted layer item with the same name.)

Locate features using:
◉ Latitude/Longitude   ○ Address   ○ None, add as table

Review the field types and location fields. Click on a cell to change it.

| Field Name | Field Type | Location Fields |
|---|---|---|
| Name | String | Not used |
| Caption | String | Not used |

Time Zone:   (UTC) Coordinated Universal Time ▾  ⑦

[ Add Item ] [ Cancel ]

Among the tags, GTKWebGIS stands for the title of the book. This tag indicates this item is based on the tutorial from this book.

The item details page appears as your CSV file is being published as a hosted feature layer. Each item in ArcGIS Online and Portal for ArcGIS includes an item page with a variety of information, actions, options, and settings organized by tab: Overview, Data, Visualization, Usage, and Settings. The tabs you see, as well as the options and information available on the tabs, depend on the item type, your privileges, and whether you are the item owner or administrator.

**7.**   Click each tab to familiarize yourself with the tabs on the item details page.
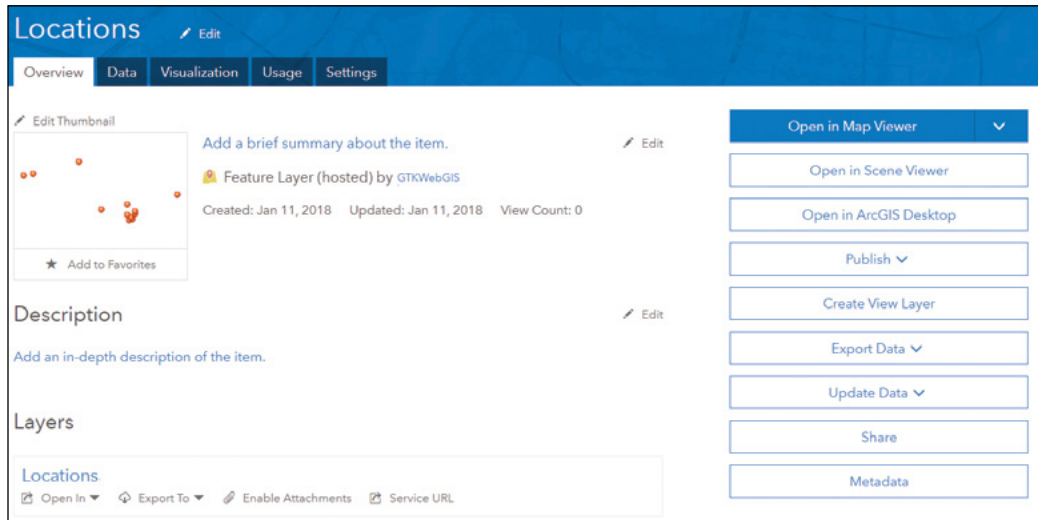


- The **Overview** tab includes overview information about an item, such as a description, tags, data source information, creation date, size, and sharing status. The tab also includes options to open, add to favorites, share the item, edit metadata, and add ratings and comments.
- The **Data** tab allows you to view, sort, and edit—if you are the item owner or the administrator—the attribute data of feature layers.
- The **Visualization** tab allows you to change default properties such as style, filter, pop-ups, and labels, of a feature layer without having to open the layer in map viewer.
- The **Usage** tab allows owners and administrators to see the usage statistics of the layer over time.
- The **Settings** tab allows editors and administrators to enable editing and configure other related settings for a feature layer.

**8.**   Click the Overview tab, click Share, share your layer with Everyone (public), and click OK.

This way, your web users can use your feature layer without having to log in.

In this section, you have created a feature layer, which will be used in the web map and web app you will be creating in the following sections.

# 1.3  Create a web map

You will make sure you are signed in before continuing with the remaining steps. Otherwise, you will not be able to save your web map and may lose your work. If you are not continuing from the last section, sign in to ArcGIS Online or your Portal for ArcGIS, go to your content, find and click the feature layer you created in the previous section.

1.    Continuing from the last section, on the item details page of your feature layer, click Open in the Map Viewer drop-down list, and choose Add to new map.
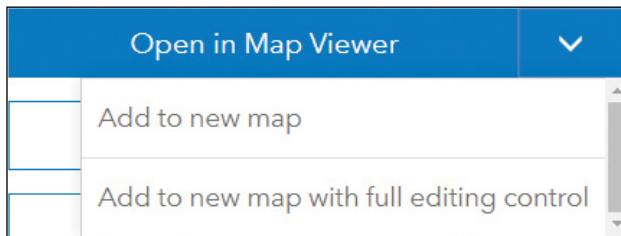


This button has two options. You can Add to new map or Add to new map with full editing control. The latter allows owners and administrators to edit the layer data and schema. You don't need to edit the layer here. Either option will direct you to the map viewer. The locations of your data are displayed on the map automatically.

2.    Familiarize yourself with the map viewer menu bar.
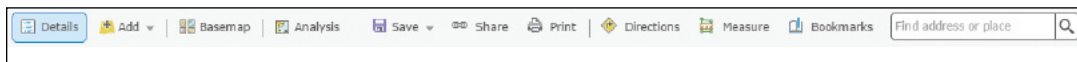


The ArcGIS Online map viewer helps users create, customize, and view web maps. On the menu bar, you will see the following buttons:
- The **Details** button ▣ toggles the panel on the left side of the web map canvas. This panel can display a web map's metadata, table of contents (TOC), or legend.
- The **Add** button ➕ is used to add a variety of layers into the web map.

- The **Basemap** button ⊞ displays a gallery of underlying imagery that users can choose from.
- The **Analysis** button ⊡ leads to a rich set of analysis functions.
- The **Save** button 🖫 allows you to save your web map.
- The **Share** button ⊟⊟ lets you select the people who will have access to your web map and choose how you will share it, either by embedding the web map in a webpage or by creating a web app from a template.
- The **Print** button 🖶 creates a hard copy of the current map view.
- The **Directions** button ◆ can calculate the best route from a starting location to the destinations you specify.
- The **Measure** button 🗺 helps determine areas, distances, and a location's longitude and latitude.
- The **Bookmarks** button 📖 allows you to save a list of map areas so you can quickly select one and zoom to that map area.
- In the **Find address or place** text box, you can specify an address or place and find its location on the map viewer.

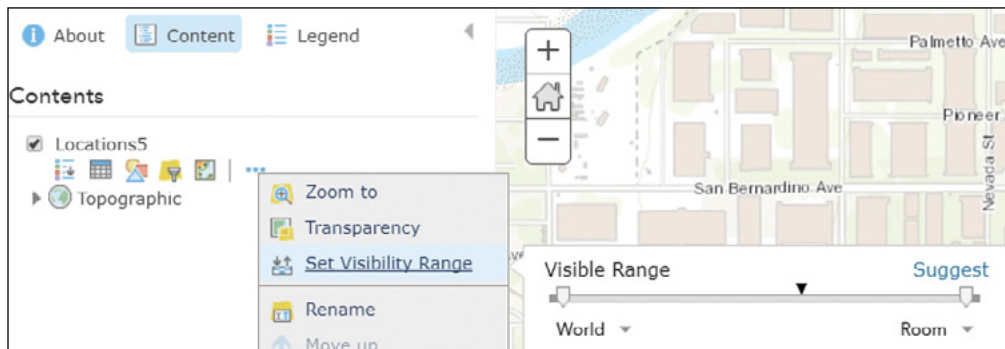3.   If you are prompted with the Change Style pane, click Cancel.

The Map Tour template will use the style defined in the app template. There is no need to configure your layer style.
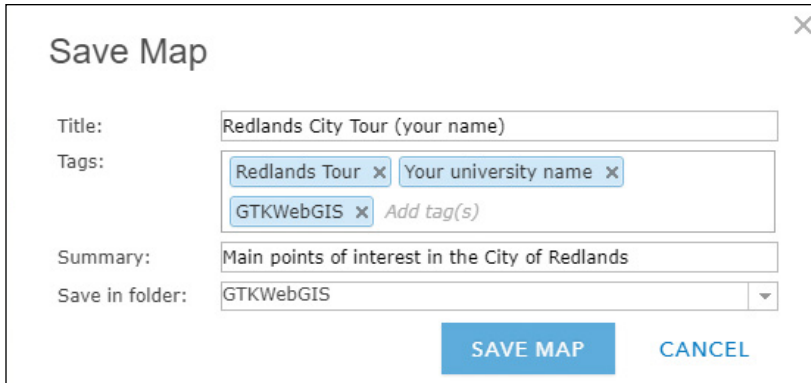
4.   In the Contents pane, point to the Locations Layer, click the More Options button •••, click Set Visibility Range, set the range to always visible (in other words, from World scale to Room scale).



5.   Zoom and pan the map to an extent that you will use as the initial extent of your web app.

6.  On the menu bar, click the Save button 💾 and choose Save.

7.  In the Save Map window, enter the title, tags, and summary of your web map. Then click Save Map. Leave the web map open.

💡 **Tip:** For your homework, include your name in the title or tags, and include your university or organization name in the tags so that you and your instructor can easily identify your web map.



Congratulations! You have created a simple web map.

Typically, users need to configure pop-up windows and sometimes change styles on map layers. You will learn these skills in the next chapter. For this tutorial, the Map Tour template automatically handles the style of your layer, so you do not need to configure pop-ups or change layer style here.

# 1.4 Create a web app using a template

This step will transform your web map into a web app using the Story Map Tour template.

1.  Continue from the previous section or sign in to ArcGIS Online or Portal for ArcGIS, and open the web map you just created. In the map viewer, click the Share button 🔗 on the menu bar, which opens the Share window.

**2.** In the Share window, select the check box next to Everyone (public) or next to the check box(es) next to the organization and group(s) with which you would like to share your web map.

**Share**                                                                  ×

**Choose who can view this map.**

Your map is currently shared with these people.

☑ Everyone (public)

☑ Esri Press - Official Book Site

☐ Members of these groups:

☐ OpenData_GTKWebGIS (Open Data)

**Link to this map**

http://arcg.is/1v0iWP

☑ Share current map extent

**Embed this map**

EMBED IN WEBSITE        CREATE A WEB APP

DONE

**Note:** Unless you share your web map and all the layers in the web map with everyone, a prompt will ask users to sign in whenever they open your web map and any web apps that use this map.

**3.** Click Create a Web App.

The Create a New Web App window opens presenting a gallery of the templates. If your organization has configured custom galleries, you may not see these same configurable apps as the figure.
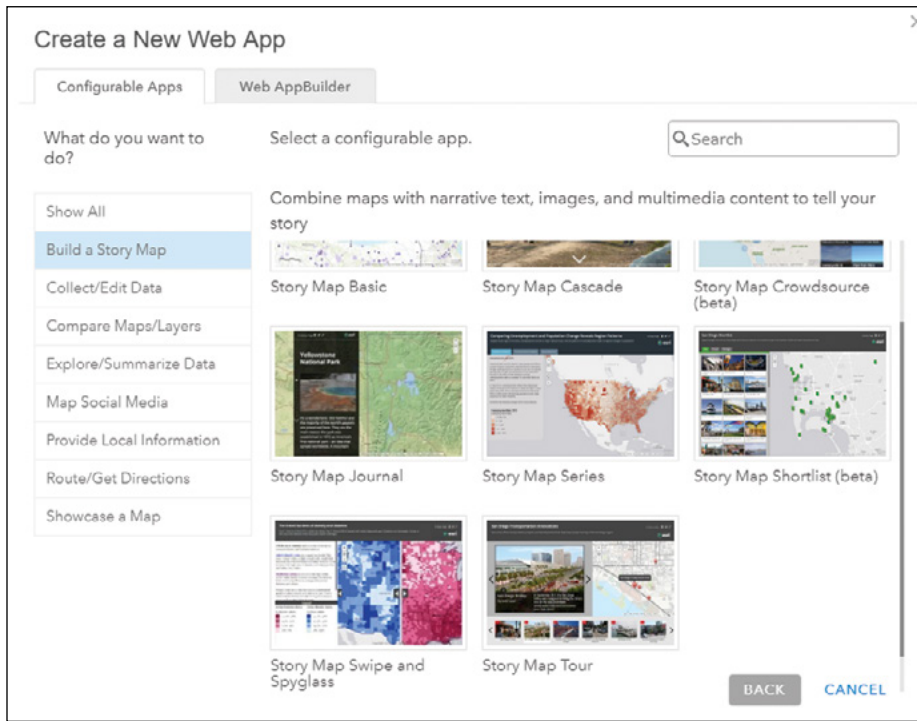
The templates are grouped and the groups are listed in alphabetical order. You can use the scroll bar to review the full gallery, or you can click a group name on the left to see the templates in this group.

4. Click Build a Story Map group on the left, find and click the Story Map Tour template, and then click Create Web App.

5. Leave the title, tags, and summary information as they are or make appropriate updates, and then click Done.

📄 **Note:** The check box, "Share this app in the same way as the map (Everyone)," is selected by default. With this check box selected, your web app will be shared with the public, along with your web map.

You have created your own informative and easy-to-use web app!

6. Click the Settings button, select the Three-panels layout, and click Apply.
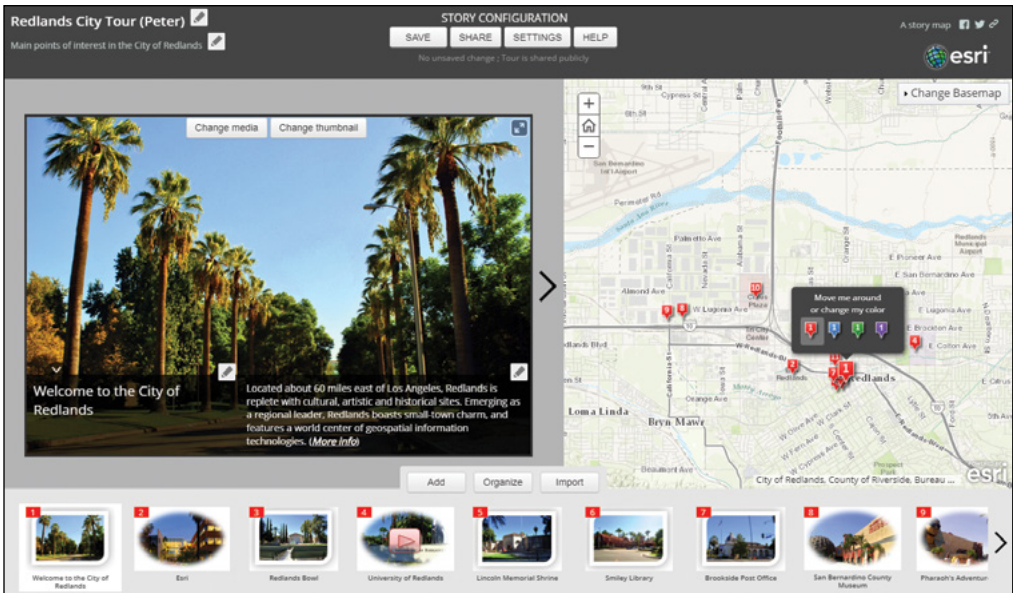
7. Spend a few minutes exploring your new web app.

For example, you can navigate through the app's tour points by clicking the thumbnails, the arrows next to the photos, and the numeric icons on the map. If you click the thumbnail for the University of Redlands, for example, a video introducing the university appears.



Your web app is already created and saved. You will further configure it in the next section.

# 1.5  Configure your web app

Once you have determined that your app's tour points and their order, captions, and descriptions are correct, your app is complete. Optionally, you can enhance your application's features by using the template's builder mode. In this mode, you can add or import new tour points; update and delete existing images; set or update locations and descriptions; update the app title, subtitle, and logo; and change the app layout.

1.   If you are continuing from the previous section, go to step 3; otherwise, sign in to ArcGIS Online or your Portal for ArcGIS.

2.  Click the Content tab, in your content list, find and click the web app you just created to go to its details page, and then click Configure App.

3.  Familiarize yourself with the builder mode.

   ● The **pencil** icon  means that you can update nearby text, such as titles, subtitles, image captions, and descriptions.
   ● The **Change media** and **Change thumbnail** buttons can be used to change the URLs of media and thumbnail locations.
   ● The **Add**, **Organize**, and **Import** buttons allow you to interactively add more locations, change the order of points, and import media from Flickr, Picasa, Facebook, YouTube, or a CSV file.

Now, you will change the Esri photo into a video.

4.  Click the Esri thumbnail image. Click Change media, then click Video. Remove the current URL, enter **https://www.youtube.com/embed/ RM0eMdrPhEA**, and click Apply.
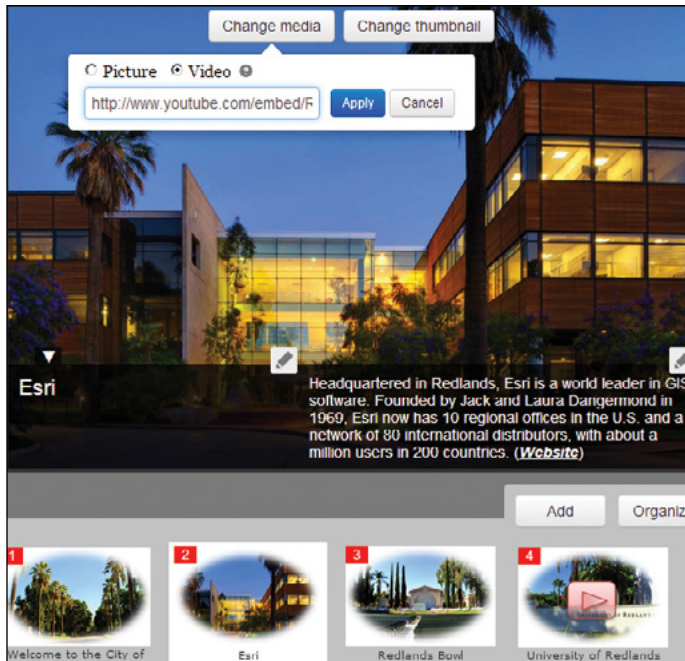


The video loads into the picture frame. Refer to the "Questions and answers" section to learn how to get video URLs for use with the Map Tour template.

Next, you will change the thumbnail for Esri to a new one that indicates a video.

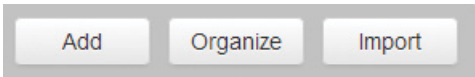**5.** Click Change thumbnail. Replace the current URL with **https://bit.ly/2J4o2Fl**, and then click Apply.

**6.** Click Save to save your changes.



In the following steps, you should save your work regularly to prevent losing your changes.

**7.** Above the thumbnail carousel, click Organize.



The **Organize the tour** window allows you to delete tour points and drag pictures to change their order.

**8.** At the bottom of the Organize the tour window, select the check box for Use the first point as introduction (does not appear in carousel). Click Apply to close the Organize the tour window.
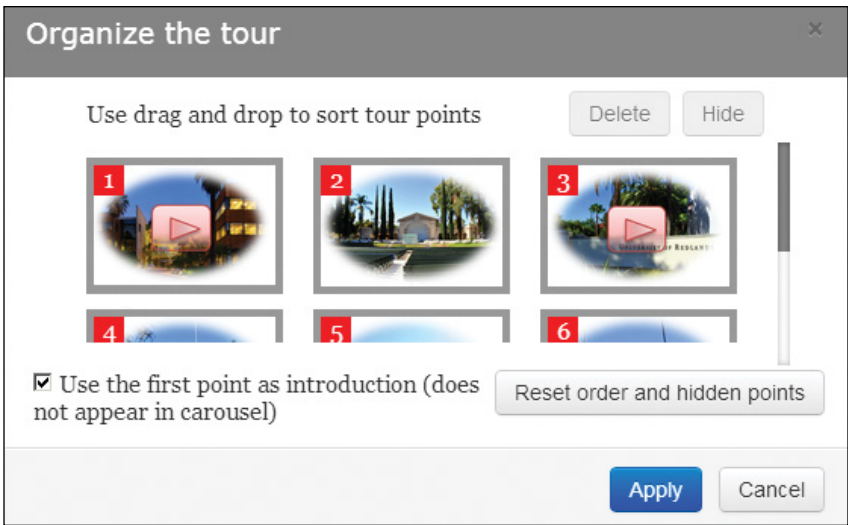


Selecting the check box sets the first record in your CSV as the introductory image to your app. This selection allows you to start your tour by showing a compelling image and an introductory

caption to set the scene. The location of this record will not be shown on the map as a numbered point in your tour.

Optionally, you can click the Import button next to the Organize button to import tour points and media from Flickr, Picasa, YouTube, or an additional CSV file. You can also add additional tour points manually by clicking the Add button and filling in the media, name, and location information.

**9.** In the page header, click Settings.
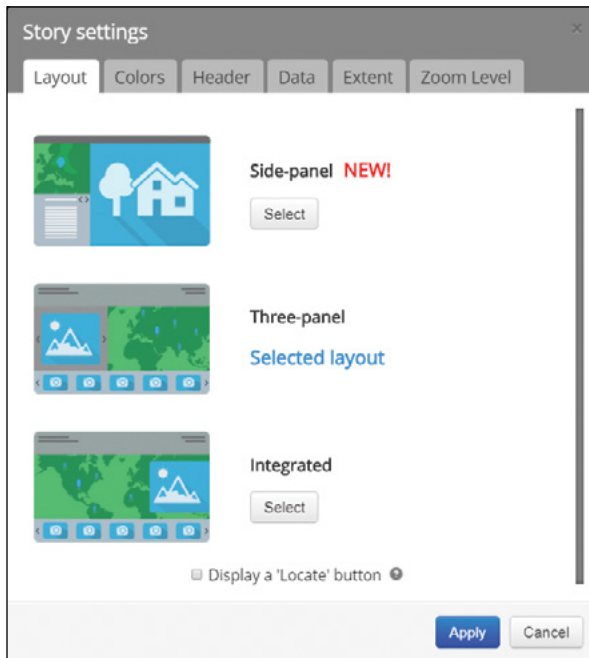


Clicking Settings opens the Story settings window with the following tabs:

- **Layout:** Choose between the Side-panel Layout, Three-panel Layout, and Integrated Layout.
- **Colors:** Choose from predefined color themes or define your own theme.
- **Header:** Set the header logo and share links.
- **Data:** No configuration is needed here. The sample CSV you use has all the fields named properly for the map tour template to use.
- **Extent:** Define the initial map extent that users will see when the app first opens.
- **Zoom Level:** Specify a scale to which the map will automatically zoom whenever the app user goes from one tour point to another (but if users manually zoom in or out, the map tour app respects their choice and no longer applies your auto zoom level).

**10.** Click the Zoom Level tab and set the Scale/level to 1:5K (level 17) as illustrated.

1

This scale allows users to see the selected POI and its adjacent area.
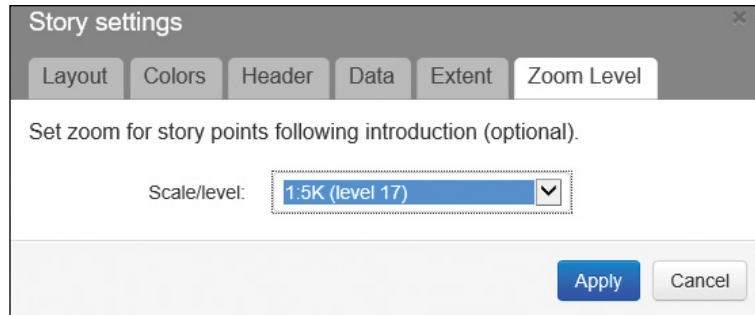


11. Click the Header tab, change the logo and text if needed, and then click Apply.

For example, you can add your name to the header so that your instructor can easily tell who created your application. Optionally, you can also exchange the logo for your organization's logo.
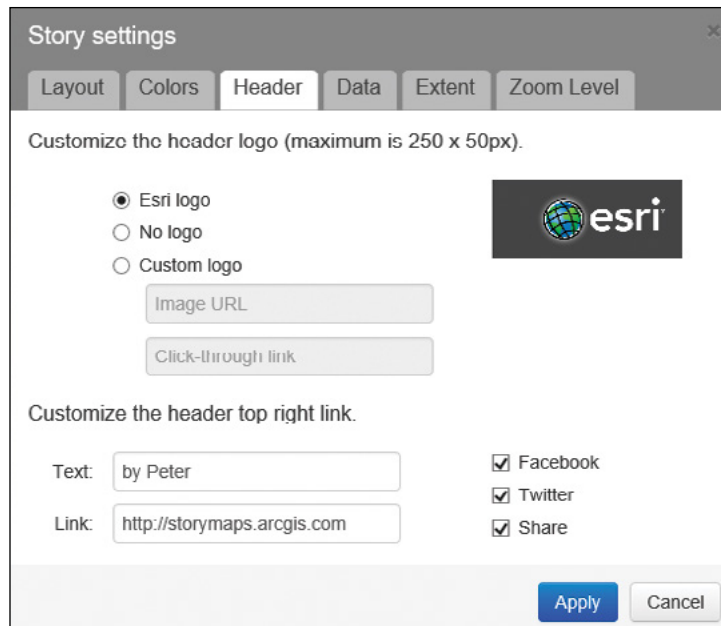


Examine the application to see if there is anything else you would like to configure. If so, you can make and apply further changes.

12. In the page header, click Save to save your work.

# 1.6  Share your web app

In step 5 of section 1.4, you created and shared this web app with the same people with whom you shared your web map. Now you will share the URL of this web app with your audience so that they can see your web app.

1.  Click Share in the page header. If you see a message saying your tour is not shared, share your tour publicly.
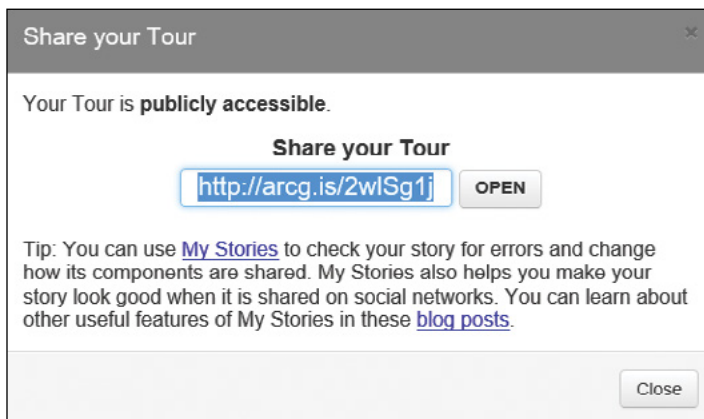
2.  In the Share your Tour window, click Open to preview your web app.



3.  Share the tour URL with your audience (for example, by copying and sending the URL through email, or by displaying the URL link on your organization's home page).

4.  Test your web app on smart mobile devices.

Open your app in your smart device's browser. To do this easily, send the URL to yourself, check your email on your smart device, find the message, and then click the URL.

Configurable apps use responsive web design technologies and can change their layouts to best fit various devices with different screen sizes. You will find they work well on iOS, Android, and Windows Phone tablets and phones.

In this tutorial, you have created a user-friendly, informative, and cross-platform web app. The app meets all the requirements listed earlier in this chapter—it displays a basemap and POI locations, their descriptions, and any photos or videos; is engaging and easy to use; and works on desktops, tablets, and smartphones.

You can create a map tour app using other workflows. In addition to pictures and videos, you can also display webpages and 3D web scenes. See the Resources section for more information.

# QUESTIONS AND ANSWERS

1. How can I get the latitude and longitude coordinates of a location or address?

   **Answer:** You can use ArcGIS Online or Portal for ArcGIS map viewer to do so. If you know where the location is, navigate there directly on the map. If not, you can type the address in the map viewer Search text box, and click the Search button. After the address is found and the map is centered to the location, click the zoom in button until you can no longer zoom in. Next, click the Measure button 🖾, click the Location button 🗺, and then click the location on the map. The location's longitude and latitude display under Measurement Result.
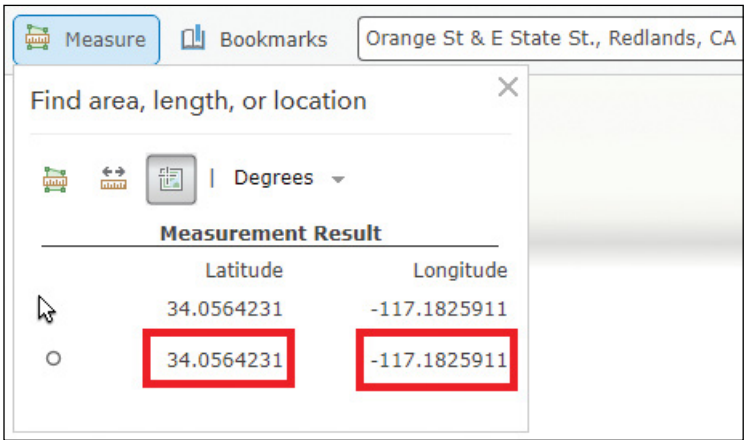


2. Locating longitudes and latitudes manually (one by one) can be slow work. Is there a more efficient way to define the locations of my points?

   **Answer:** Use addresses, feature classes, or geotagged media if you have them. In your CSV, specify the addresses of your points in one or multiple address fields such as Address, City, State, and ZIP. When you create your feature layer, ArcGIS Online and Portal for ArcGIS will geocode these addresses and find their locations automatically.

   If you have your tour points in a shapefile or file geodatabase, you do not need to create a CSV file. You can zip your shapefile (do not include a folder) or file geodatabase (include the folder of the file geodatabase), and then create your feature layer using this zip file.

   If you have geotagged media, for example, photos taken using your smartphone with location enabled for your camera, you can create an empty web map and import these photos using the app builder mode.

3. After publishing my CSV to ArcGIS Online as a feature layer, I need to update my CSV. Will the changes to my CSV automatically update in my feature layer, web map, and web app?

**Answer:** No, but you can overwrite the feature layer, or edit your data directly in ArcGIS Online or Portal for ArcGIS. Once your CSV data has been published to ArcGIS Online, it is uploaded to the cloud. Your feature layer, web map, and web app will use this cloud copy, rather than your local copy. To use your new CSV data, go to the details page of your feature layer, click the Update Date button, select Overwrite Entire Layer to re-create your feature layer using the new CSV. This will preserve your feature layer id, and thus won't break the web maps and web apps using your layer.

Update Data ⌄

Overwrite Entire Layer

Append Data to Layer
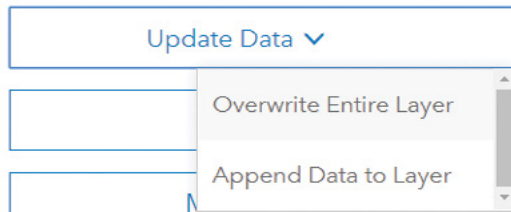
You can also edit data directly in ArcGIS Online or Portal for ArcGIS. You can go to the details page of your feature layer, click the Data tab, and double-click a value in the table to change it. Or you can click the Overview tab, click Open in Map Viewer, select Add layer to new map with full editing control, click the Edit button in the map viewer, click a tour point on the map, and click Edit in the pop-up. Then you can edit the attribute values and move the point on the map.

4. I submitted my homework URL, but my professors can't access it. Why? How can I fix this problem?

**Answer:** First, make sure your layer(s), web map, and web app for this assignment are all shared with the public. Next, check if your organizational settings allow anonymous access. Refer to step 7 in section 1.1. If you still have the problem, go to **http://storymaps.arcgis.com/en/my-stories/**, sign in, and click the Check Stories button to find the causes.

5. Should I enable my ArcGIS Online organization to use HTTPS only?

**Answer:** It depends. In general, it is recommended that you enable HTTPS only, which gives you enhanced security. If you enable HTTPS only, this implies that all the services and layers that your web maps and apps will be using must be configured to support HTTPS because web browsers do not allow the mixing

of HTTP and HTTPS content. Some organizations still have map services and geoprocessing services running on the ArcGIS Server that doesn't have HTTPS configured. These services can be loaded via HTTPS. If you will use such services in your web maps and apps, you should disable the HTTPS only option (refer to step 5 in section 1.1.).

6.  I need to upload my photos to a web server to get their URLs. Is there a web hosting service that you would recommend?

    **Answer:** There are many ways to upload and host your photos. Here are a couple easy ways:
    *   Upload your photos to **https://imgur.com**, and then find the direct links to each photo.
    *   Upload your photos to ArcGIS Online. Refer to **https://blogs.esri.com/esri/ arcgis/2018/01/05/photos-images**.
    *   Upload your photos to Flickr, and then import them to your map tour app.

7.  I can drag and drop my CSV to the map viewer directly. How does this layer differ from a hosted feature layer?

    **Answer:** The former can be used for quick demos of small amounts of data, but it is not recommended in general. The latter has better reusability, supports larger data sizes, and supports more operations.

|  | Embedded layers (layers added to web maps directly) | Hosted feature layer and feature service |
|---|---|---|
| Storage | The data is stored or hardcoded in the web map. | The data is stored in its own layer. Web maps just store a reference to this layer. |
| Data size limitation | Limited. Up to 1,000 features per layer, or 250 features per layer if using geocoding. | 1G per hosted feature layer; unlimited for feature services (requires ArcGIS Enterprise). |
| Reusability | Not reusable. To use the data in a different web map, you would have to add the CSV to the web map one more time. This essentially creates another copy. | Reusable. You can reference a feature layer—one copy of truth—in as many web maps and apps as you want. |
| Capabilities | Doesn't support query, search, and charting in most ArcGIS client apps such as Web AppBuilder for ArcGIS. | Support query, search, and charting in most ArcGIS client apps such as Web AppBuilder for ArcGIS. |

8. It's slow to upload my photos to a web server and find the latitudes/longitudes of these photos manually. Are there ways to create Story Map Tour apps without me having to upload photos and locating them myself?

**Answer:** This tutorial teaches the generic workflow from data > layer > web map > web app. This workflow is applicable when you create web apps using other templates or app builders.

You can create map tour apps using many other ways, some of which are easier though they are specific to the map tour template. For example, you can use Story Map Tour Builder, and choose to upload your images. This approach will upload your photos for you. If your photos are geotagged, the location of each photo is automatically extracted. Refer to **http://storymaps.arcgis.com/en/ app-list/map-tour/tutorial** for more details.
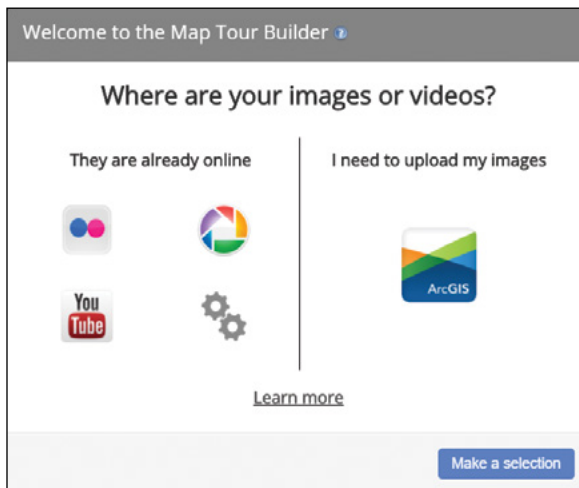
# ASSIGNMENT

## Assignment 1: Choose from the following topics, and create an app using Esri Story Map Tour to showcase your chosen topic:

- Your personal story (where you were born, where you moved, where you went to school or worked, and so on)
- Your city's key attractions
- The landmarks, buildings, and departments on your campus
- Places you have visited in the past or during a recent vacation
- Branches of a bank or supermarket in your city or region
- Projects that your organization has accomplished or is working on
- Locations of key environmental interest (for example, largest/oldest trees) or historic interest (for example, oldest houses)
- Other interests

**What to submit:**

- Your web app URL

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## *Resources*

"Add YouTube videos to your Story Map Tour," Bern Szukalski, **http://blogs.esri.com/esri/arcgis/ 2015/08/12/add-youtube-videos-story-map-tour**.

"Adding links to captions in your Story Map Tour," Bern Szukalski, **http://blogs.esri.com/esri/ arcgis/2015/08/12/add-links-map-tour**.

"ArcGIS Online: Administration Basics," **https://www.esri.com/training/catalog/580fc524a4a46d1 72b116873/arcgis-online:-administration-basics** (or **http://arcg.is/2Duh8aA**).

"ArcGIS Online: Getting Started," **https://www.youtube.com/playlist?list=PLGZUzt4E4O2IJt1O_ OTDFR-3dUpiCZGKf** (or **http://bit.ly/2cy3IM3**).

"ArcGIS Online Help," **http://doc.arcgis.com/en/arcgis-online**.

"ArcGIS Online: Sharing Basics," **http://www.esri.com/videos/watch?videoid=gQ68gWcN1Mk&ch annelid=UCgGDPs8cte-VLJbgpaK4GPw&title=arcgis-online:-sharing-basics** (or **http://arcg. is/2mtn6QO**).

"Chapter 1, GIS Provides a Common Visual Language," *The ArcGIS Book*, Christian Harder and Clint Brown, **http://learn.arcgis.com/en/arcgis-book/chapter1**.

"Create a Story Map Tour from a Google Sheet," Owen Evans, **http://blogs.esri.com/esri/ arcgis/2015/08/12/create-a-map-tour-from-a-google-sheet**.

"Get Started with ArcGIS Online (2017)," **https://www.esri.com/training/catalog/57eb2e47ee85c0f520 4beb1d/get-started-with-arcgis-online-(2017)**/ (or **http://arcg.is/2AZsssh**).

"Get Started with Story Maps," **http://learn.arcgis.com/en/projects/get-started-with-story-maps**.

"GIS—The Science of Where," Michael Goodchild, **https://www.youtube.com/watch?v=iyBOsaFLTrU** (or **http://bit.ly/2FCxnTp**).

"Make a GeoPortfolio," **http://learn.arcgis.com/en/projects/make-a-geoportfolio**.

"Make a Map Tour Story Map," Rupert Essinger, **http://www.esri.com/esri-news/arcwatch/0513/ make-a-map-tour-story-map**.

"Set Up an ArcGIS Organization," **http://learn.arcgis.com/en/projects/set-up-an-arcgis-organization**.

"Story Map Tour," **https://storymaps.arcgis.com/en/app-list/map-tour**.

"Story Map Tour source code," **https://github.com/Esri/storymap-tour**.