

Week 4 - Module 2a - Web-based Mapping Clients. Google Maps API

This week covers some additional topics related to the Google Maps API, particularly focusing on styling the Maps base maps using the styled maps wizard and integrating the javascript generated by the wizard into the base web page code developed last week; and, using Google's Fusion Tables tool to create and manage tabular data for mapping and other visualization. We complete our work with the Maps API with an example of a more "real" example of a maps-enabled web page.

Expected Outcomes

By the end of this class module you should be able to:

- Generate a Google Maps JSON style using the *Styled Maps Wizard*
- Integrate that JSON into your map client page for styled basemap display

You should also understand

- The potential of *Fusion Tables* as an alternative source of data to integrate into a custom Google Map page
- The potential structure of an *operational* web page, including the physical separation of page components (structure, presentation, behavior) into separate files

Key Concepts

- Generating Google Maps styles
- Integrating styles into a Google Maps page
- Fusion tables as a data source for Google Maps maps
- Separation of structure, presentation, and behavior in web development

Class Prep

- Lynda.com tutorials
 - *Javascript for Web Designers* (continued)
 - * 5. Using the Google Maps API

Reference Materials

- Duckett, Jon, and Larsen, Rob. *Beginning HTML and CSS*. Somerset, NJ, USA: John Wiley & Sons, 2013. ProQuest ebrary. Web. 28 December 2015. This book is available online through the University Library - Chapters 2,3,4 and 8

- Google Maps API Tutorial
- Google Maps Styling Reference
- Svennerberg, Gabriel. *Beginning Google Maps API 3*. Apress, © 2010. Books24x7. Web. Dec. 28, 2015. *Books 24x7 Library Database* - if this direct link to the book doesn't work for you, try logging in first and searching for Google Maps API - the Svennerberg book will be the first item on the list. 4-8
- Google Maps Fusion Mapper

Weekly Milestone - Styling of an Embedded Google Map

Make a free-standing web page based upon the Google Map that you created as part of last week's lab assignment. Use the Google styled maps wizard to define *at least* three modified base map styles and integrate the JSON generated by the wizard into your new Google Map page.

Deep Dive - Creation of a a Google Maps Web Page with Custom Points and Labels

In your milestone for Week 4 you built a styled Google Maps base map for a particular region of interest. For this *deep dive* assignment create a new free-standing web page that includes a brief description of the topical focus of your mapper:

- The type of information that you want to depict in your map
- Your reasons for selecting the specific area shown in the map
- A description of what you are trying to communicate with the map

Embed the base map that you initially created for your milestone into this new web page.

- Add 5 overlay objects to the map that relate to specific items of interest or importance. These overlay objects may be *markers*, *polylines*, or *polygons*. Make sure to include descriptive titles for each object.
- Add an *info box* to each object that contains additional detailed information about the object