q1

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VisionZ; very useful!; do watch them! (qgis2 not 3)

- the whole thing https://www.youtube.com/watch?v=KjvFil3o4y8&list=PLNCPalajQvg7wQvzf3fM8fOZ5lMKl86Q4

- 01 - open and view data
  https://www.youtube.com/watch?v=KjvFil3o4y8&list=PLNCPalajQvg7wQvzf3fM8fOZ5lMKl86Q4&index=1

- 04 - Working with attributes
  https://www.youtube.com/watch?v=G6UeiGg2Cp8&list=PLNCPalajQvg7wQvzf3fM8fOZ5lMKl86Q4&index=4

- 07 - Basic vector styling
  https://www.youtube.com/watch?v=b-0MQ7dnVJk&index=7&list=PLNCPalajQvg7wQvzf3fM8fOZ5lMKl86Q4

- 03 - print composer
  https://www.youtube.com/watch?v=YnqbC1hkfnk&list=PLNCPalajQvg7wQvzf3fM8fOZ5lMKl86Q4&index=3

other references

- `http://www.youtube.com/results?search_query=qgis`
  not sure, any of these useful in particular? email listserv

- pretty good and comprehensive; in-depth but easy to
  navigate reference `http://www.qgistutorials.com/en/`

- `http://www.qgistutorials.com/en/docs/teach_qgis.html`

- Good howto, references

○ `http://hub.qgis.org/projects/quantum-gis/wiki/`

○ QGIS FAQ

`http://hub.qgis.org/projects/quantum-gis/wiki/How_do_I_do_that_in_QGIS`

first thing: find data

○ reliable?: always think how reliable is the source

• trust the govt, "major companies", universities, etc

• say US states; where do i get it?

• google "US states shapefile" and we get

• https://www.census.gov/geo/maps-data/data/
  tiger-cart-boundary.html

• click 'State,' and get:

• https:
  //www.census.gov/geo/maps-data/data/cbf/cbf_state.html

saving and unzipping

- save link as 'cb_2016_us_state_20m.zip'
- and save say into /Downloads/= Home Folder/Downloads
- then open that location using file explorer (file cabinet icon at bottom left):
- Home Folder/Downloads
- right click and "Extract Here"
- you'll see a bunch of files–they key one is .shp
- keep them **all with same name in same location**–otherwhise it won't work!

adding data

- click first icon on second toolbar "3 squares with $+$"
- to open Data Source Manager
- and click first icon on the left toolbar "line with nodes" for vector data
- ("checkboard" is for raster/pictures (later))
- and we got the map in the middle
- it also appears in Layers panel on the left
- NOTE: can also grab zipped folder from file explorer/cabinet
- and drop into map window of qgis
- but sometimes need to unzip/extract first
- and it shows you what's inside

zooming, identifying

- grab it and move around with "hand" pointer
- can zoom in and out
- either click the map with appropriate tool
- better yet, draw a rectangle to achieve appropriate zoom
- once zoomed in, let's identify features
- select tool "arrow with 'i''' -'i' for info/identify
- click on some polygon, say TX and it'll pop up information
- a useful thing is to right click on layer and do "zoom to layer"

underlying data

- there is always a table (database) underlying a map
- right-click on the layer in left panel ,or from top menu: Layer:
  - "Open Attribute Table"
- now, let's make a selection: highlight some rows in the table
  - or do it in the map: "arrow with rectangle": Select Features by Area or single click
    –either click or draw a rectangle
  - to deselect use "rectangle with 'no' sign"

loading more data

- click and Save File `https://docs.google.com/uc?id=1xJDhcRCkgv7k4tNCa72Oog5bohV6dTB2&export=download`
- then can just hit blue download arrow at top right in firefox
- click folder to fire up file explorer
- and drag over the zipped file into qgis map window
- there were 3 shapefiles inside and now have 3 additioonal layers

play around

- move layers up and down
- turn on the layers and off (check tick)
- right click and see the data (table)
- remember i was saying there is always data under the map?

your first thematic map

- thematic maps are the key thing in this class (thematic.pdf)
- nj counties-Properties-Symbology and from drop-down: "Graduated"
- Column: "POP2010"
- Color ramp: can just leave Reds
- and hit "Classify" button
- many ways to do the classification: more soon
- if you're curious–just poke around with classifications
- easy to experiment and figure things out there
- and hit "OK" to see the map–viola!

export

- make sure map is centered:
- nj counties-Zoom to Layer
- Project-Import/Export-Export map to PDF
- (useful for presentation/high quality mapping)
- Project-Import/Export-Export map to image????
- (useful for ps to insert into word)
- NOTE: have nice resolution, but not too big, say ¡1mb
- otherwhise you'll end up with unwieldy files that take forever to open