

# ps4: using gis tools

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**due in 2 weeks (fall2019 due to one class missed: due in 3 weeks)**

1. use at least **5 different tools** from advQ.pdf (say geocode, count points in poly, dissolve, SQL, and centroids) or some tool we did not cover. By tools I mean tools found under menus: Vector, Raster, Processing. (From MMQGIS: Spatial Join and Geocode qualify as well). Also some Plugins would qualify as a “tool” (Basemap like OSM map won’t qualify). Ask if in doubt. The idea is that you use some gis processing, that is, you’ll transform data in some way or produce some new data.
2. prove (typically with maps) that you have used the tool—say show a map with original and dissolved polygons; a map showing counties that satisfy some sql query and original map; or say produce a csv of places that lie within a mile from a hwy, etc

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## general notes (always the same):

broad idea:

- it will be cumulative: ps will snowball/accumulate into the final project
- it will be also collaborative: you will see what others are doing

submission guidelines:

- if you work in a group of 2 or 3 people make it 2x or 3x better, eg If ps asks for joining 2 datasets, and there are 3 of you, then just join 6, etc Just do 3x more or better.
- submit only one pdf into sakai’s resources folder, there must be only one pdf for you (or your group) and then for next ps you’ll just add new section with new ps to your earlier ps and upload that (all the ps you submitted earlier AND new section with new ps), and remove the previous pdf from sakai; the pdf must be named with your name or your group names and brief explanatory substantive title, say joe bean and bill smith mapped crime across NJ counties: joeBeanBillSmithCrimeNJCounties.pdf
- each ps section will have at least one map (make it big with nice resolution, but not too big, say each map should be at least half-page if not much detail or full page if detailed and each map <1mb) and brief description of a map, say few sentences or a paragraph or max few; also list any problems you’ve encountered and can ask questions!
- exact links to all of the source data (so that i could create the map myself); note: exact links, eg do not say census.gov, but give full url to the data—i must be able to find it; sometimes there is no generic URL—then give steps: what I need to click to get the data!; or upload data say to your dropbox or google drive and provide link to there; so there must be all raw gis data (e.g. .shp .dbf and .shx and others if any), and any other data (e.g., .csv, .xls) that you used to produce a map; in rare circumstances if you use confidential/private data that cannot be shared, please contact me (and still do provide links to all the other data you’re using)
- like you have one pdf in Sakai’s Resources folder, so I will have one text file with comments on your ps
- in addition to submission, you will usually (be ready every class! depending on how we do on time) present the map in class—can just show map(s) (max 5-8min (depending on class size): i will cut you off!
- can change the topic and group (easier to stick with one, but often a good idea to change)

to reiterate, for each ps the following must be always added as new section to the file with all previous ps:

- the map(s) with short description (and problems and questions if any)
- very specific links to all data
- and prepare for presentation

as soon as possible (and definitely once we cover pretty.pdf, final\_project.pdf) :

- the map needs to be “pretty” (syllabus: pretty.pdf): must have legend, title, cut decimal points, make fonts small, etc)
- the map must be “interesting” (syllabus: pretty.pdf, final\_project.pdf): ask yourself the “so what?” question; essentially, you need to tell a story with your map

tips:

- start early; start tomorrow or the day after tomorrow or tonight! otherwise you'll forget it...and then, next week polish it
  - use your (gis) data-again, if you do not have dataset, have a email the listserv
  - you cannot use the data I used in the class (or that I am using in the slides posted on the website for the future classes)
  - assignments are due by **the beginning** of the class
  - if you choose to work in a group, write down the names of people you worked with and submit one ps for the whole group
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for wikipedia only [not fall2020]:

wiki formatting: side by side

```
<gallery>
File:Example.jpg|Item 1
File:Example.jpg|a link to [[Help:Contents]]
File:Example.jpg
File:Example.jpg|alt=An example image. It has flowers
File:Example.jpg|''italic caption''
Example.jpg|on page "{{PAGENAME}}"
File:Using Firefox.pdf|page=72
</gallery>
```

OR:

```
{{multiple image
| footer      = The mule links to ''[[Mule]]'', the donkey does not link anywhere,
and the trout links to its image description page as usual.
| align       = left

| image1      = Frecklesmule.jpg
| width1      = 143
| alt1        = A mule
| caption1    = <center>A mule<br />sdad</center>
| link1       = Mule

| image2      = Donkey 1 arp 750px.jpg
| width2      = 150
| alt2        = A donkey
| caption2    = <center>A donkey<br />sdas</center>
| link2       =

| image3      = Rainbow_trout.png
| width3      = 91
| alt3        = A trout
| caption3    = <center>A fish<br />
{{sdsadas}}, ''asdasd''</center>
}}
```