1) Clean all code and check it into a Github repo (either your fork of ThinkBayes2 or another).
2) Write a report similar to one of my blog posts and check the source format and PDF into the repo.
3) Turn in a paper copy of the report that includes the location of the repo.

**Report notes**

1) Don't forget basics: give it a real title, not "Bayesian Case Study Report."  Put your name on it.  Numbers should have reasonable precision.  Figures should have readable axes, labels, and captions.

2) Avoid these common features of bad writing.

3) The target audience is other students in the class.  You can assume that they know Bayesian vocabulary and the thinkbayes.py framework.

4) If you want to be a better writer, show me a draft.

5) If I think your case study would make a good guest blog article, I'll let you know.  But if you are interested in this option, let me know.  I also encourage you to pursue other venues.  Some case studies might be in the next edition of Think Bayes.

6) Start writing now.  Overlapping the writing with the work creates a virtuous cycle.

QuestionMethodResultInterpretation

Uncle, SIDS, Governmental Recommendations, the recommendations today are almost the exact opposite of what my grandmother was told all those years ago, and it bothers her to no end, government claiming that they knew the best way to put a baby to bed when it actually wasn't, wanted them to admit their ignorance in the absence of medical research figuring it out, rather than recommending their guess with assurance.
Complex problem. Both medically and ethically.
So what if the government was willing to admit their ignorance, and was willing to intelligently and purposefully try out different sets of recommendations and update their belief about what the best combination of policies was, incorporating, of course, any information from clinical trails and medical discoveries as the information came in? Even mentioning the possibility of intentional trial and error in a governmental policy (of any kind, not just health recommendations) is extremely controversial, of course. No one would wish to believe they were being experimented on. But is simply recommending a best guess and sticking with it until the medical field can begin to provide statistically significant and robust evidence to the contrary from smaller clinical trials any better? Would fewer infants have died if we had begun the process of  varying our policies and updating our beliefs about the associated infant mortality rate right from the realization of the problem?

This, and other possible instances of intelligently applied trial and error in governmental policy (actually, in really any complex system, fantastic ted talk by the way Trial and Error in Governmental

Policy—[http://www.ted.com/talks/tim_harford?language=en#t-516784](http://www.ted.com/talks/tim_harford?language=en#t-516784)
complex systems, admitting ignorance, willingness to try various solutions to identify the best, possible fail,, sometimes the best you can do is "make good mistakes")... instances of exploration vs explotation problems.

This is a bit of a problem with exploration vs exploitation. Taking advantage of what you think is currently the best, but also exploring the other possibilities, especially when you don't actually have much data, to both identify and use the best solution the fastest.

Classically, problem of approaching an array of slot machines and trying to figure out which machine will give you the highest rate of successful returns starting from a position of complete ignorance.