MATH 3080 Lab Project 6

Your Name Here

01/15/2020

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Problem 1

In Project 5, you created a package ***MyzTest*** *for distributing the function* `z.test()` *you wrote in Project 3. This package is barebones, lacking traditional documentation (other than maybe a vignette and* `README.md`*) and any testing.*

1. *Write documentation for* `z.test()` *and the data set you provided with the package using* ***roxygen2****. Be sure to document all function parameters and how they should be used, along with the output. Be sure you provide a good description of your data set, such as where it came from (is it just random numbers produced by, say,* `rnorm()`*?) and its structure.*
2. *Write tests for your package using* ***testthat****. There's only one function in this package to test:* `z.test()`*. That said, you can still write a considerable body of test code ensuring that every important feature (the ability to change confidence level and form for confidence intervals, changing the alternative hypothesis, sigma, all error checking, etc.) works correctly. Write thorough test code for* `z.test()`*. Perhaps look at the original specification of* `z.test()` *provided in Project 3 to see what important features should be tested.*

I expect to be able to build and install your package and that the code in it runs correctly. I will be building it myself. Submit a `.zip` *file with a single directory named* `MyzTest` *as its contents, and that directory contains all package files. I will inspect the contents and test that the package works as I expect myself. In particular, I will be checking the documentation of* `z.test()` *and the data set, and I will run the tests you provided and expect that those tests pass. As an additional check of your honesty, I may also run my own tests on your package and see if they pass. I will not reveal those tests to you now.*