# Homework Assignment

1. Write an entity and architecture for a decade counter (i.e., it counts from 0 to 9 before rolling over to 0 again). Be sure to include the following signals clk, reset (back to 0), en (enable signal), and q (output).
2. Write a testbench for the decade counter. Be sure to use the methods discussed in lecture.
3. Once you have taken screenshots and documented your above design works, change your test vectors for the testbenches so that there are at least two failures. Take a screenshot of the console output that shows the descriptive errors your testbench generates.

# Turn-In Requirements

1. Answers to the above questions
2. Simulation screenshots and source code where appropriate.