Homework 1 due March 7 (7.5% of entire grade)

- Midterm 1 - Thursday March 12 - similar to structure of this homework
- answer in detail
- a coupe of paragraphs per answer
- focus on writing (must be Sufficient and thought-out answers)
- don’t copy sentences from the book, everything your own words

Going through the 10 questions...

1.6 - we want to look at an example but
using cruising control as examples... do NOT use cruise control as examples in hw
for fault cases develop use case

- we would develop a use case for fault cases

1. driver turns on C.C.
2. C.C. activated
3. car is driving at 40 mph
4. Driver deactivates the Cruise Control
5. Cruise Control continues to remain cruising - *Faults*
6. Driver does not decelerate to stop for upcoming intersection, and now does not have enough time to stop.
7. Driver missed the stop sign
8. Driver is O.K. but this software is dangerous/faulty

2.8

process models - agile, waterfall. etc... review the process model
is it possible to combine process models? -> come up with a situation where combining two makes sense
not yes or no, actually describe situation that it could be possible or argue that it is not possible

2.9

- helps with presentation of data, good enough - deliver quickly, get ahead, not in case of Mission Critical system or life dependent systems

- advantages and disadvantages.. list bullet items (cost, fast time to market)

3.2

- read from book, understand and write in own words

5.1

- judgement answer, any 3 good answers is good.

6.6

- go through all 8 and argue if there is one more important than all others. should be a good argument that shows it. state the reason. quality of answer

7.1

- prototype to see if its even feasible first in some cases

7.5

- Complete! use case for withdrawal from ATM
- must be a good one
- only 1 action per step **

  Board Notes: What are the Uses of Use Cases
  - *what* (not how) the software functions are (*setting, braking, inc,dec, reading log*)
  - identifies the Actors (only actors should be doing anything with the system)
  - Identify Classes... *** go through the Use Cases to find the *nouns*... *nouns = class objects*

  we want to be able to see what are the classes and actors of the case or its not a good one

8.1

- we have the models, seq/state diagrams -> why can't we start coding? why do we have this design phase?.... you need to state all the things that prevent you from coding (like so far... you haven't talked about data yet... like 40mph speed has to be an integer... then you can do arithmetic with that... what data are we getting from sensors? binary or ints? why bin? only 2 states so it prevents error.. that info is necessary to build the system. all that data needs to be identified first.. they get identified in the design phase

8.10

- in detail identify differences and similarities and describe them.