Hello students

This is a basic guide for the components of the project (requirements, architecture, components, user interface and testing)

Requirements:

- Start with 136, Requirements template
- The review the requirement validation checklist (next page)
- Then review 8.2 on page 138 (which elaborates on 136)
- Create at least 2 use case examples (use the example on page 151)
- create high-level use case diagram (page 153)
- create either an activity diagram (page 180) or a swimlane diagram (page 181) of the use case
- next move on to chapter 10
- read 10.1 (identifying classes)
- create a list of items for your system that look like the table at the top of page 187
- Read 10.2 (specifying attributes)
- create a list of items for your system that looks like figure 10.1
- read 10.3 (Defining operations)
- create a class diagram of your classes (each one) figure 10.2
- if is very helpful if you use CRC cards (figure 10.3) and finally read 10.5 (associations and dependencies)
- address multiplicity and dependencies (figure 10.5 and figure 10.6)

Design:

- Start with page 226 (figure 12.1)
- use the task set on page 231 as a guide (note: item 4 in the list states that you can either start with classes or components, components are easier to start with but you still need classes)
- read all of 12.3
- now review figure 12.4 ((see the conversion between analysis (requirements) and design)
- now use the architecture decision description template on page 257 as a guide
- fill in this list for each problem defined in your use case (your functional items)
- your architecture will be either layered or object oriented (page 263) figure 13.4 so your diagrams will be with figure 13.4 or figure 12.3 (class based)
- now create a architectural context diagram (page 269 figure 13.6)
- then create a overall architectural structure diagram (figure 13.8)
- now components (chapter 14 - remember components give a more global definition)

- read 14.1
- if your system is class based (which it is) read 14.2 use the figure on page 14.4 to identify OCP (sensors, system and user interface) do one for each (and for both use cases)
- if you went the route of component level the read 14.3 then create a diagram such as 14.8

User interface: (chapter 15)

- read 15.1.1
- review the info on page 322
- review 15.3 interface analysis
- use 15.3.2 and 15.3.3 as guidelines of what should be considered layout a screen for the PEN (figure 15.3) sequence it with figure 15.4

Testing: chapter 22

- review the figure 22.1 (this will be your guideline)
- create a Unit test (figure 22.3) and it's unit test environment (figure 22.4) for each component (and or class)
- read 22.7 on page 483
- testing OO designs: (chapter 24)
- review the guidelines on 24.2.2 and use figure 24.1 to help address testing concerns then read 24.3
- follow the guidelines at the top of page 530, review this list for each class or component of your system - address concerns
- then address interclass testing (figure 24.2)

So these are my suggestions, you may have deviated but basically this would be a list for this project

If you have time, or interest address chapter 34 (although this is not necessary)

Regards

Dr. Kane