UML

Exercise 1

Create class diagrams that describe the classes and relationships depicted in the following scenarios:

Researchers are placed into a database that is maintained by the region of South West. Information of interest includes researcher name, title, position, date began current position, number of years at current position; university name, location, enrollment; and research interests. Researchers are associated with one institution, and each researcher can have up to five research interests. More than one researcher can have the same interest, and the system tracks the ranking of the best researchers for each interest. The system should be able to insert new researchers, universities, and research interests; produce information, such as the number of researchers at each university, contact information for the researchers, and research interests that do not have associated researchers; and change researcher rankings for the various research interests.

Exercise 2:

After reading this use case report for a customer purchase, draw a state machine diagram, please identify the various states and transitions.

1. The customer adds items into the shopping cart.
2. The customer checks out and submits the purchase once he or she is finished.
3. The purchase is pending while payment is authorized.
4. The payment is approved.
5. The purchase is pending for final customer approval.
6. The customer confirms the purchase.
7. The download is released