Week5: DevOps/Hibernate Questions

Here is a list of questions/concepts that I came up with that, in my opinion, would be a useful tool to review for evaluations. This is not necessarily a comprehensive list and you may still get asked questions that are not from this list. Review your notes.

# AWS and DevOps

* What is unix?
* Talk about grep, yum and man
* Talk about the following unix commands: ls, cd, cat, grep, man, wget, pwd, mkdir, touch, man, cp, mv, echo, nano, vim, sudo
* Explain unix commands used for file creation and directory navigation
* What is vim? What is nano?
* How do I change file permissions (two main ways)?
* How do I create local environment variables
* What is AWS?
* What is the cloud?
* Talk about: EC2, AMI, RDS, EBS, S3, Route 53, VPC, ELB, auto-scaling groups
* What is a security group?
* What is the difference between PAAS, SAAS, and IAAS?
* What are examples of cloud computing models?
* AWS Availability Zones vs Regions
* What is an AWS endpoint?
* DevOps
* Continuous Integration vs Continuous Delivery vs Continuous Deployment
* What is Jenkins?
* How would you build a DevOps Pipeline with notifications and quality checking?
* What is Sonar?
* What is Agile?
* What is Scrum?
* Talk about the steps in the Maven Lifecycle
* Why would it be a good idea to push early and often in DevOps?
* What is git?

# Hibernate

\*\*Note that, for the purposes of this course, we learned about Hibernate 4\*\*

* What is hibernate?
* What is ORM?
* Know how to set up Hibernate
* Talk about the 3 states of persistence
* Talk about some of the important classes/interfaces relevant to Hibernate architecture
* What is the relationship between configuration, Session Factory, Session, and Transaction? How do you create objects of each?
* Where is hibernate configured?
* Know the tags within the hibernate.cfg.xml file
* How are objects mapped xml-wise vs annotation-wise?
* What is the Java Persistence API?
* Lazy Loading vs Eager Fetching
* Get vs load
* Save vs persist
* L1 caching vs L2 caching
* How do you make a join table?
* Name some cache providers that Hibernate can use
* Which methods would you use to perform CRUD operations in Hibernate
* How to use HQL and SQL in Hibernate
* Query vs Criteria
* What interface or class do you use to create the Query or the Criteria object
* ACID
* Transaction Isolation levels
* Does Hibernate auto-commit
* Bonus: merge vs update