**Week 9 Breakout**

Remember to appoint the following:

* An organizer
* A scribe
* A presenter

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Answer the question that corresponds with your group number. If you are not familiar with the subject matter in the question, please feel free to search on the web. Remember to type DONE when completed.

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| # | Question | Your response |
| 1 | Why is it so expensive to query records in Cassandra? What is the cost of creating indexes and materialized views? | Cassandra is distributed across several nodes; queries must scan every table on every node within the cluster. Estimates put MVs at losing about 10% performance per MV. DONE |
| 2 | Where does Cassandra fall on the dimensions of the CAP theorem? Explain why. | It falls on the AP (Availability + Partitioning) dimension. It reaches eventual consistency, but it’s not consistent is because it can always write but not guarantee the same read. Not good for analytical base and ad hoc queries. ACID w/o the C, eventual C. --DONE |
| 3 | Why is it important to design a robust distribution strategy in Cassandra? | Cassandra is used to handle lots of data, so you need a good distribution strategy to ensure your data is spread evenly throughout all the nodes. There are also no integrity constraints in Cassandra so it is important to know how the data will be input as well.  DONE |
| 4 | Cassandra supports eventual consistency. When is eventual consistency useful? | Best suited for data that needs high “write” performance and not necessarily “read” performance.  As stated, Cassandra is great for transactional data – writes are important, reads can wait.  DONE |
| 5 | How can Cassandra support privacy implementations, such as multi-tenancy? | Each tenant’s data is isolated and remains invisible to other tenants. This is important for personal data, so to implement multi-tenancy, you would partition your data based on the information you would like to keep private on the cluster.  DONE |