1. 
2. Text

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3. **3 Important features of Memory Grids are**:
   1. **Distributed**:
   2. **Elastic**:
   3. **Resilient**:
4. **Distributed in nature**:
   1. Graphical user interface

      Description automatically generated with medium confidenceIn the above diagram, Node 3 makes a network call for lookup for data B.  
      So, data is distributed among different servers but the memory Grids will take care of look up.
5. **Resilient**:
   1. This is the fault-tolerance feature of Memory Grid.
   2. It means memory grid is capable of recovering from **node crashes**.  
      The way it does this is by maintaining a copy of a backup data into another node.
   3. Catastrophe can happen. Let’s see Node 3 is undergoing a **out of memory exception** then eventually crashes.   
      But as Node 1 and Node 2 has Node 3 Data so the whole cluster can restore later on.   
      A screenshot of a computer

      Description automatically generated with low confidence
6. **Elastic**:
   1. Suppose we have initially 2 nodes Node 1 and Node 3 with some data on them.
   2. Now suppose, a new Node 3 joins the cluster and the cluster undergoes a process called **rebalancing** where data is distributed into Node 3 as well.

This makes memory grid **highly scalable.**

Text

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In next lecture, we will spin in a Spring Boot Project to see how to use Hazelcast.