1. **Pre-Requisite**:
   1. The previous lecture on N+1 problem.
2. Just a review on N+1 problem:
   1. Each student has one Guide and each Guide may have many Students.
   2. When we load all students then its associated Guide (as per mapping one Guide is associated) is also loaded.  
      So one query to load all Students (EntityManager.findAll()) and for each student, one query to fetch its associated Guide will also be issued. So N+1 queries. (1 for Student fetching and N for Guide Fetching)  
      If we have N Students, there may be N different associated Guides so N.  
      We saw a solution 🡺 @ManyToOne(fetchType=FetchType.LAZY) for EntityManager.findAll();  
      This solution will load only Students not its Guide. So, just one query.  
      and for JPQL 🡺 “select student from Student left join fetch Guide”.   
      This solution will issue just one query and all students and associated Guides will be loaded.
3. Let’s talk about the special case (JPQL)
   1. But we saw if the # of Students grow, the query “select student from Student left join fetch Guide” will put a lot of burden on DB.
4. Another Solution: Batch Fetching.
5. 