# Spring Data JPA

1.How to do pagination when you use Spring Data JPA ?  
Ans - Instead of CrudRepository<Product, Integer> use PagingAndSortingRepository<Product, Integer>.

//See the sample code below   
//public interface ProductRepository extends CrudRepository<Product, Integer> {

public interface ProductRepository extends PagingAndSortingRepository<Product, Integer> {

List<Product> findByName(String name);

List<Product> findByNameAndDesc(String name, String desc);

List<Product> findByPriceGreaterThan(double price);

List<Product> findByDescContains(String contains);

List<Product> findByPriceIsBetween(Double price1, Double price2);

List<Product> findByDescLike(String pattern);

Page<Product> findAll(Pageable pageable);

}

2. What are the types / classes available in the pagination ?  
Ans - Interfaces - Page, Pageable , Class - PageRequest

@Test

public void testFindAllPaging() {

//Lets first check how many records are there in DB

long totCount = prodRepository.count();

int no\_of\_recs =1;

long totalPages = totCount / no\_of\_recs;

Sort sort = Sort.by("name");

for(int pageNo =0; pageNo < totalPages ;pageNo++) {

Pageable pageable = PageRequest.of(pageNo, no\_of\_recs);

Page<Product> pageProduct = prodRepository.findAll(pageable);

System.out.println("Page\_No ::: " + pageNo);

pageProduct.forEach(prd -> System.out.println(prd));

}

System.out.println("Total no of records in Product table : " + totCount);

}

3. How will you sort result from the database ?  
Ans - Below is the sample code,  
@Test

public void testFindAllSortingAsc() {

//Example of sorting by multiple properties

Sort sort = Sort.by("name","price");

prodRepository.findAll(sort).forEach(prod -> System.out.println(prod.getName()));

}

@Test

public void testFindAllSortingDesc() {

Sort sort = Sort.by("name").descending();

prodRepository.findAll(sort).forEach(prod -> System.out.println(prod.getName()));

}