# Hands-on 1: Query Methods on Country Table

## Query Method Requirements

* Search by country name containing a string (e.g., 'ou') and display matching countries.
* Enhance the above method to sort the countries in ascending order by name.
* Query countries starting with a particular alphabet (e.g., 'Z').

## CountryRepository.java - Query Methods

List<Country> findByNameContaining(String keyword);  
  
List<Country> findByNameContainingOrderByNameAsc(String keyword);  
  
List<Country> findByNameStartingWith(String prefix);

## Testing in OrmLearnApplication.java

@Autowired  
private static CountryRepository countryRepository;  
  
private static void testFindByNameContaining() {  
 LOGGER.info("Start");  
 List<Country> countries = countryRepository.findByNameContaining("ou");  
 LOGGER.debug("Countries: {}", countries);  
 LOGGER.info("End");  
}  
  
private static void testFindByNameContainingOrderByNameAsc() {  
 LOGGER.info("Start");  
 List<Country> countries = countryRepository.findByNameContainingOrderByNameAsc("ou");  
 LOGGER.debug("Countries sorted: {}", countries);  
 LOGGER.info("End");  
}  
  
private static void testFindByNameStartingWith() {  
 LOGGER.info("Start");  
 List<Country> countries = countryRepository.findByNameStartingWith("Z");  
 LOGGER.debug("Countries starting with Z: {}", countries);  
 LOGGER.info("End");  
}

# Hands-on 2: Query Methods on Stock Table

## Query Method Requirements

* Get all stock details of Facebook in the month of September 2019.
* Get all Google stock details where the stock price was greater than 1250.
* Find top 3 dates with highest volume of transactions.
* Identify 3 dates when Netflix stocks were the lowest.

## StockRepository.java - Query Methods

List<Stock> findByCodeAndDateBetween(String code, LocalDate startDate, LocalDate endDate);  
  
List<Stock> findByCodeAndCloseGreaterThan(String code, BigDecimal price);  
  
List<Stock> findTop3ByOrderByVolumeDesc();  
  
List<Stock> findTop3ByCodeOrderByCloseAsc(String code);

## Testing in OrmLearnApplication.java

@Autowired  
private static StockRepository stockRepository;  
  
private static void testFacebookStocksSeptember2019() {  
 LOGGER.info("Start");  
 List<Stock> stocks = stockRepository.findByCodeAndDateBetween(  
 "FB", LocalDate.of(2019, 9, 1), LocalDate.of(2019, 9, 30));  
 LOGGER.debug("FB Sept 2019: {}", stocks);  
 LOGGER.info("End");  
}  
  
private static void testGoogleStockPriceAbove1250() {  
 LOGGER.info("Start");  
 List<Stock> stocks = stockRepository.findByCodeAndCloseGreaterThan("GOOGL", new BigDecimal("1250"));  
 LOGGER.debug("GOOGL > 1250: {}", stocks);  
 LOGGER.info("End");  
}  
  
private static void testTop3HighVolumeStocks() {  
 LOGGER.info("Start");  
 List<Stock> stocks = stockRepository.findTop3ByOrderByVolumeDesc();  
 LOGGER.debug("Top 3 volume: {}", stocks);  
 LOGGER.info("End");  
}  
  
private static void testLowestNetflixStocks() {  
 LOGGER.info("Start");  
 List<Stock> stocks = stockRepository.findTop3ByCodeOrderByCloseAsc("NFLX");  
 LOGGER.debug("Lowest NFLX: {}", stocks);  
 LOGGER.info("End");  
}