

```

public class ProductDaoJdbcImpl implements ProductDao {
    @Override
    public void addProduct(Product product) throws PersistenceException {
        String SQL = "INSERT INTO products (name, price, category, quantity) VALUES (?, ?, ?, ?)";
        Connection con = null;
        try {
            con = DBUtil.getConnection(); //latency
            PreparedStatement ps = con.prepareStatement(SQL);
            ps.setString(1, product.getName());
            ps.setDouble(2, product.getPrice());
            ps.setString(3, product.getCategory());
            ps.setInt(4, product.getQuantity());
            ps.executeUpdate();
        } catch (SQLException e) {
            throw new PersistenceException("unable to add product", e);
        } finally {
            DBUtil.closeConnection(con);
        }
    }

    @Override
    public List<Product> getProducts() throws FetchException {
        String SQL = "SELECT id, name, price, category, quantity FROM products";
        List<Product> products = new ArrayList<>();
        Connection con = null;
        try {
            con = DBUtil.getConnection();
            Statement stmt = con.createStatement();
            ResultSet rs = stmt.executeQuery(SQL);
            while(rs.next()) {
                products.add(Product.builder()
                    .id(rs.getInt("id"))
                    .name(rs.getString("name"))
                    .price(rs.getDouble("price"))
                    .quantity(rs.getInt("quantity"))
                    .category(rs.getString("category")).build());
            }
            // products.add(new Product(rs.getInt("id"),
            // rs.getString("name"), rs.getDouble("price"),
            // rs.getInt("quantity"), rs.getString("category")));
        } catch (SQLException e) {
            throw new FetchException("unable to get products", e);
        } finally {
            DBUtil.closeConnection(con);
        }
        return products;
    }

    @Override
    public Product getProduct(int id) throws FetchException {
        String SQL = "SELECT id, name, price, category, quantity FROM products WHERE id = ?";
        Connection con = null;
        try {
            con = DBUtil.getConnection();
        } catch (SQLException e) {
            throw new FetchException("unable to get product by id " + id, e);
        } finally {
            DBUtil.closeConnection(con);
        }
    }
}

```

```

public interface ProductDao extends JpaRepository<Product, Integer> {
}

```

```

@SpringBootApplication
public class OrderappApplication {
    public static void main(String[] args) {
        SpringApplication.run(OrderappApplication.class, args);
    }
}

```

```

@EnableAutoConfiguration
@ComponentScan(excludeFilters =

```

```

public interface ProductDao extends JpaRepository<Product, Integer> {
}

```

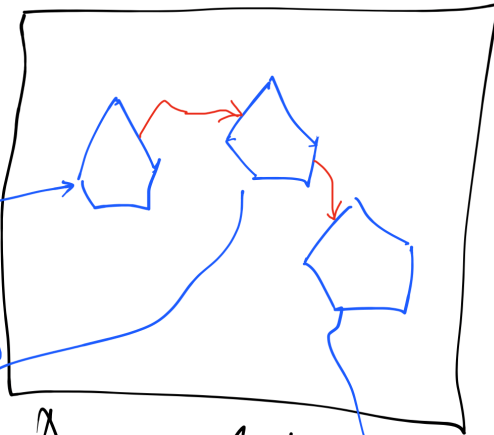
class

```

@Service
public class OrderService {
    @Autowired
    private ProductDao productDao;
}

```

① SpringContainer



Application Context

```

@Component
public class ProductClient implements CommandLineRunner {
    @Autowired
    private OrderService service;
}

```

```

@SpringBootApplication
public class OrderappApplication {
    public static void main(String[] args) {
        SpringApplication.run(OrderappApplication.class, args);
    }
}

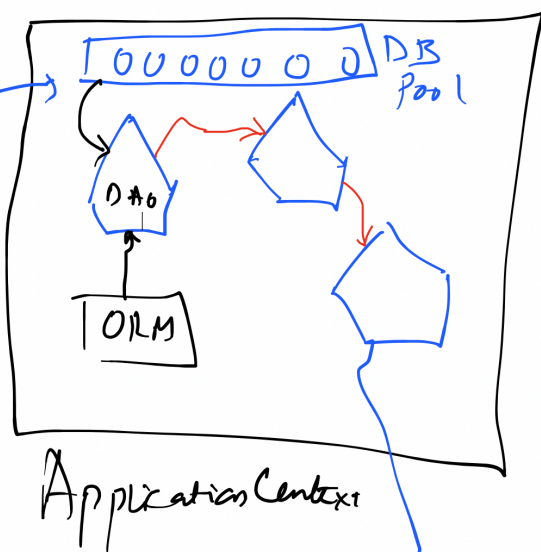
```

① SpringContainer

@EnableAutoConfiguration
@ComponentScan(excludeFilters =

① DataSource

② Hibernate ORM

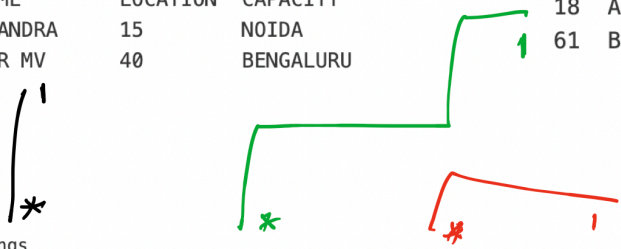


meeting_room			
ID	NAME	LOCATION	CAPACITY
21	CHANDRA	15	NOIDA
22	SIR MV	40	BENGALURU

employees			
ID	NAME	DESIGNATION	EMAIL
18	A	MANAGER	a@adobe.com
61	B	TEAM LEAD	b@adobe.com

bookings				
ID	booked_by	booked_date	training	room
800	b@adobe.com	19-JUL-23	2	22
801	a@adobe.com	20-JUL-23	1	21
802	a@adobe.com	21-JUL-23	2	21

trainings		
ID	NAME	TRAINER
1	JAVA	T
2	WEB	R
3	C++	X



```
[mysql> select * from customers;
```

email	fname	lname
raj@adobe.com	Raj	Kumar
sam@adobe.com	Samanta	Ruth

1
*

orders

ORDER_ID	ORDER_DATE	TOTAL	customer_fk
123	19-JUL-23	89011	sam@adobe.com ✓
124	20-JUL-23	600	raj@adobe.com ✓
125	20-JUL-23	9800	sam@adobe.com ✓

id	category	name	price	quantity
1	tv	Sony Bravia	210000	100
2	mobile	iPhone 14	120000	100
3	mobile	OnePlus Nord	98000	100
4	computer	Wacom	4500	200
5	computer	Logitech Mouse	980	200
6	tv	Tata Bing	9800	100

1
*

line_items

ITEM_ID	PRODUCT_FK	ORDER_FK	QTY	AMOUNT
422	4	123	2	9000.00
423	6	123	1	8900.00
425	4	124	1	4500.00

1
*