## ****Difference between JPA, Hibernate & Spring Data JPA****

| **Aspect** | **JPA** | **Hibernate** | **Spring Data JPA** |
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| **Type** | Specification | Implementation | Framework/Abstraction |
| **Provided by** | Java EE / Jakarta EE | Hibernate (Red Hat) | Spring Framework |
| **Purpose** | Defines standard API for ORM | Provides actual ORM implementation | Simplifies JPA with auto-repositories |
| **What it does** | Sets rules for mapping Java objects to DB tables | Maps Java objects to DB tables, provides extra features | Generates CRUD Repositories, custom queries easily |
| **Example** | @Entity, @Id | SessionFactory, Criteria API | JpaRepository, CrudRepository |
| **Key point** | Rules only, no code | Working code, full ORM engine | Less boilerplate, auto CRUD |