# Difference between JPA, Hibernate and Spring Data JPA

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| JPA | Hibernate | Spring Data JPA |
| Java Specification Request (JSR 338) for data persistence in Java. | Implementation of JPA. A popular ORM framework. | Abstraction over JPA/Hibernate to reduce boilerplate code. |
| Provides interfaces and annotations. No implementation. | Provides the actual implementation of JPA interfaces. | Relies on JPA implementation like Hibernate but simplifies usage. |
| Needs provider like Hibernate for actual execution. | Performs DB operations using Session and Transaction. | Uses Repository interfaces and auto-generated queries. |
| Standardized API for ORM. | Open-source framework developed by Red Hat. | Part of Spring ecosystem with integration and auto-configuration. |
| Requires manual setup for transaction and CRUD logic. | CRUD requires session management and transaction handling. | Provides JpaRepository with built-in CRUD and pagination support. |