**Hibernate Cache:**

Hibernate cache will improves the performance of an application by pooling object from Cache.

It is useful when we have to fetch the same data for multiple times.

Two types of caching,

* First Level Cache
* Second Level Cache

**First Level Cache:** First level cache is Session cache, It is enabled by default.

And First level cache data will not be available for to entire application since it’s an session level cache and application can have multiple session objects.

**Second Level Cache:** SessionFactory holds the Second level cache. It is global for all session objects and we need to enable this cache explicitly.

Different vendors have provided implementations for second level cache.

* EH (Easy Hibernate) Cache
* Jboss cache
* OS Cache
* Swarm Cache.

Each implementation provides different cache usage functionality. There are four ways to use second level cache.

1. **read-only:** caching will work for read only operation.
2. **nonstrict-read-write:** caching will work for read and write but one at a time.
3. **read-write:** caching will work for read and write, can be used simultaneously.
4. **transactional:** caching will work for transaction.

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| --- | --- | --- | --- | --- |
| **Implementation** | **read-only** | **nonstrict-read-write** | **read-write** | **transactional** |
| EH Cache | Yes | Yes | Yes | No |
| OS Cache | Yes | Yes | Yes | No |
| Swarm Cache | Yes | Yes | No | No |
| JBoss Cache | No | No | No | Yes |