Top 10 Performance Tips for Apache SOLR

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There are many factors to bring up ***best implementation of Enterprise Search*** in Search world. However few elements are taken into consideration while preparing Solr *solrconfig.xml & schema.xml* for Core. Why I'm calling below points as top 10 performance tips? As I said many factor drives the performance, however below points are must to have during a installation; that's why

Below listed tips contribute towards good to start configuration and better performance on **Apache SOLR [Enterprise Search]** for your search implementation

1. Master *{for Indexing more information}* and Slave *{for querying more information i.e., application interaction. Multiple slave instances based on need}* installation on Apache SOLR
2. Focus on Solr schema field definition
   - define *stored="false"* for all fields possible (particularly large fields) when you required to do a search on the field and not to return the original value
   - On the other hand set *indexed="false"* if required to return the field as search result on other indexed fields and not required to do a search on the field.
3. Use *copyField* on need basis
4. Use *dynamicField* when required
5. For best index size and searching performance, set "index" to false for all general text fields, use copyField to copy them to one *"text"* field, and use that for searching
6. Use StreamingUpdateSolrServer java client to maximize indexing performance ratio
7. Run SOLR server JVM in *"server"* mode. For e.g.: provide *"-server"* in JVM option
8. Use tint, tlong, tdate, tdouble, tfloat for faster range queries
9. Use *High Level Logging* instead of every request on SOLR server side
10. Disable *"autoCommit"* on solrconfig.xml

Above key factors will contribute towards betterment of your Solr search configuration. I will try add other factor for facets, auto suggests, spellcheck dictionary, etc.