

Software specifications

| Chapter number | Software required (With version) | Free/Proprietary | If proprietary, can code testing be performed using a trial version | If proprietary, then cost of the software | Download links to the software | Hardware specifications | OS required |
|----------------|----------------------------------|------------------|---|---|---|-------------------------|-------------|
| 1 | PostgreSQL | Free | N/A | N/A | https://www.postgresql.org/ | | |
| | memtest86+ | | | | a. http://www.memtest.org/ | | |
| | STREAM | | | | http://www.cs.virginia.edu/stream/ | | |
| | hdtune | | 34.95\$ | Yes | http://www.hdtune.com/ | | Windows |
| | bonnie++ | | | | http://www.coker.com.au/bonnie++/ | | |
| | sysbench | | | | http://sysbench.sourceforge.net/ | | |
| | pgtune | | | | http://pgfoundry.org/projects/pgtune/ | | |
| | Sysinternals tools | | | | http://technet.microsoft.com/en-us/sysinternals/ | | |

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|--|-------------|--|--|--|---|--|--|
| | Hyperic HQ | | | | http://www.hyperic.com/products/postgresql-monitoring | | |
| | Reconnoiter | | | | http://labs.omniti.com/ | | |
| | Staplr | | | | http://github.com/myYearbook/staplr | | |
| | SNMP Tools | | | | http://pgsnmpd.projects.postgresql.org/ | | |
| | pgpool-II | | | | http://www.pgpool.net/mediawiki/index.php/Main_Page | | |
| | pgBouncer | | | | https://wiki.postgresql.org/wiki/PgBouncer | | |
| | pgmemcache | | | | http://pgfoundry.org/projects/pgmemcache/ | | |
| | Slony | | | | http://slony.info/ | | |
| | LongDiste | | | | http://pgfoundry.org/projects/skytools/ | | |
| | pgLogical | | | | https://2ndquadrant.com/en/resources/pglogical/ | | |
| | xDB | | | | https://www.enterprisedb.com/products-services-training/products-overview/xdb- | | |

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|--|-------------|--|--|--|---|--|--|
| | | | | | replication-server-multi-master | | |
| | Postgres-XC | | | | http://sourceforge.net/projects/postgres-xc/ | | |
| | Rubyrep | | | | http://www.rubyrep.org | | |
| | Golconde | | | | http://code.google.com/p/golconde | | |

Detailed installation steps (software-wise)

The steps should be listed in a way that it prepares the system environment to be able to test the codes of the book.

1. PostgreSQL:

Installation guide is available at this site https://wiki.postgresql.org/wiki/Detailed_installation_guides

2. memtest86+

a. <http://www.memtest.org/>

3. STREAM

<http://www.cs.virginia.edu/stream/>

4. hdtune

<http://www.hdtune.com/>

5. bonnie++

<http://www.coker.com.au/bonnie++/>

- a. `$ wget http://www.coker.com.au/bonnie++/bonnie++-1.03e.tgz`
- b. `$ tar xvfz bonnie++-1.03e.tgz`
- c. `$ cd bonnie++-1.03e/`
- d. `$./configure`
- e. `$ make`
- f. `$./bonnie++ -f -n 0 | tee `hostname`.bonnie`
- g. `$ chmod +x ./bon_csv2html`
- h. `$ cat `hostname`.bonnie | grep "," | ./bon_csv2html > `hostname`.htm`

6. sysbench

<http://sysbench.sourceforge.net/>

- a. `$ git clone https://github.com/akopytov/sysbench.git`
- b. `$ cd sysbench`
- c. `$./autogen.sh`
- d. `$./configure --without-mysql`
- e. `$ make`
- f. `$ sysbench/sysbench --test=cpu run`

sysbench 0.5: multi-threaded system evaluation benchmark

7. pgtune

<http://pgfoundry.org/projects/pgtune/>

8. Sysinternals tools

<http://technet.microsoft.com/en-us/sysinternals/>

9. Hyperic HQ

<http://www.hyperic.com/products/postgresql-monitoring>

10. Reconnoiter

<http://labs.omniti.com/>

11. Staplr

<http://github.com/myYearbook/staplr>

12. SNMP Tools

<http://pgsnmpd.projects.postgresql.org/>

13. pgpool-II

http://www.pgpool.net/mediawiki/index.php/Main_Page

14. pgBouncer

<https://wiki.postgresql.org/wiki/PgBouncer>

15. pgmemcache

<http://pgfoundry.org/projects/pgmemcache/>

16. Slony

<http://slony.info/>

17. Londiste

<http://pgfoundry.org/projects/skytools/>

18. Bucardo

<http://bucardo.org/>

19. pglogical

<https://2ndquadrant.com/en/resources/pglogical/>

20. xDB

<https://www.enterprisedb.com/products-services-training/products-overview/xdb-replication-server-multi-master>

21. Postgres-XC

<http://sourceforge.net/projects/postgres-xc/>

22. Rubyrep

<http://www.rubyrep.org>

23. Golconde

<http://code.google.com/p/golconde>