

| 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, 2, 4, 5     | Anaconda v. 5.0.1                | Free  |   |   | <a href="https://www.continuum.io/downloads">https://www.continuum.io/downloads</a>                           | CPU: 2 x 64-bit 2.8 GHz 8.00 GT/s<br>CPUsRAM: 32 GB (or 16 GB of 1600 MHz DDR3 RAM)<br>Storage: 300 GB. (600 GB for air-gapped deployments.)  | Windows, MacOS or Linux |
| 1, 2, 4, 5     | Miniconda for Python 3.6         | Free  |   |   | <a href="https://conda.io/miniconda.html">https://conda.io/miniconda.html</a>                                 | 32- or 64-bit computer.<br>RAM: 32 GB (or 16 GB of 1600 MHz DDR3 RAM)<br>Storage: 300GB   | Windows, MacOS or Linux |
| 3, 6           | PostgreSQL 10                    | Free  |   |   | <a href="https://www.postgresql.org/download/">https://www.postgresql.org/download/</a>                       | 64bit CPU<br>64bit Operating System<br>2 Gigabytes of memory<br>Dual CPU/Core<br>RAID 1   | Windows, MacOS or Linux |
| 3, 6, 7, 8     | PostGIS Bundle 2.2.4             | Free  |   |   | <a href="https://postgis.net/install/">https://postgis.net/install/</a>                                       |   | Windows, MacOS or Linux |
| 8              | QGIS                             | Free  |   |   | <a href="https://qgis.org/en/site/forusers/download.html">https://qgis.org/en/site/forusers/download.html</a> | No formal requirements. Runs on almost any modern computer.   | Windows, MacOS or Linux |
| 16             | Hortonworks Data Platform        | Free  |   |   | <a href="https://hortonworks.com/downloads/">https://hortonworks.com/downloads/</a>                           | CentOS release 6.9 (Final)<br>Java Version (docker container)<br>openjdk version "1.8.0_161"<br>OpenJDK Runtime Environment (build 1.8.0_161-b14)<br>OpenJDK 64-Bit Server VM (build 25.161-b14, mixed mode)<br>Updated from previous version | CentOS, MacOS           |
| 10             | MapD Core Community Edition      | Free and Proprietary versions ( but cloud server with GPUs will cost money) | <a href="https://www.mapd.com/cloud/">https://www.mapd.com/cloud/</a> |   | <a href="https://www.mapd.com/platform/downloads/">https://www.mapd.com/platform/downloads/</a>               | With GPU: NVIDIA GPU chips  | Linux/MacOS/Windows     |