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Software and hardware requirements

| 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 |
|----------------|----------------------------------|------------------|---|---|---|---|--|
| 3-14 | Git | Free | | | https://git-scm.com/ | n/a | Windows (7 or later), macOS (10.7 or later) Linux (2.4.0 or later) |
| 3-14 | Go | Free | | | https://golang.org/doc/install | amd64, 386, arm64 or arm processor with a least 512MB RAM | Windows (7 or later), macOS (10.10 or later) Linux (2.6.23 or later) |
| 5-14 | GCC or compatible compiler | Free | | | Linux: use your package manager macOS: https://developer.apple.com/xcode Windows: https://msys2.org/ | Various | Various |

Installing required software

In preparation for following the code examples in this book you will need to have Go installed and also the GCC or Clang compiler to support the CGo functionality. The installation of these dependencies is different for each operating system and full details can be found in the "Installation Details" Appendix. An overview is as follows:

Git

- Linux

1. Install the `git` package with your system package manager

- macOS (Xcode)
 1. Install Xcode from <https://developer.apple.com/xcode/> or the Mac App Store
 2. Enable command line tools by running `xcode-select --install`
- Windows
 1. Download the Git installer from <https://git-scm.com/download/win>
 2. Run the installation wizard and follow its instructions

Go

- Linux
 1. Install the "go" or "golang" package with your system package manager
- macOS
 1. Download the Go .pkg file from <https://golang.org/dl/>
 2. Run the Go installer, following the prompts displayed
 3. Close and re-open any terminal windows
- Windows
 1. Download the Go MSI script from <https://golang.org/dl/>
 2. Run the installation script
 3. Follow the additional environment instructions at <https://golang.org/doc/install>

GCC

- Linux:
 1. Install the "gcc" package with your system package manager
- macOS (Xcode):
 1. Install Xcode from <https://developer.apple.com/xcode/> or the Mac App Store
 2. Enable command line tools by running `xcode-select --install`
- Windows (msys2 & mingw):
 1. Download the windows build of msys2 from <https://www.msys2.org/>
 2. Run the installation wizard and follow its instructions

3. Open the MSYS2 terminal and install GCC and pkgconfig using the command `pacman -S mingw-w64-x86_64-toolchain mingw-w64-x86_64-pkg-config`

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