# Using `ccache` to speed up package installation

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Based on http://dirk.eddelbuettel.com/blog/2017/11/27/#011_faster_package_installation_one.

1. Install `ccache` using:

   ```
   sudo apt install ccache
   ```

2. Add the following to `~/.R/Makevars`:

   ```
   ## ~/.R/Makevars
   ##
   VER=
   CCACHE=ccache
   CC=$(CCACHE) gcc$(VER)
   CXX=$(CCACHE) g++$(VER)
   CXX11=$(CCACHE) g++$(VER)
   CXX14=$(CCACHE) g++$(VER)
   FC=$(CCACHE) gfortran$(VER)
   F77=$(CCACHE) gfortran$(VER)
   ```

3. Add the following to `~/.ccache/ccache.conf`:

   ```
   ## ~/.ccache/ccache.conf
   ##
   max_size = 5.0G
   # important for R CMD INSTALL *.tar.gz as tarballs are expanded freshly -> fresh ctime
   sloppiness = include_file_ctime
   # also important as the (temp.) directory name will differ
   hash_dir = false
   ```