# Lab 2 Installing R Packages (Paid Server)

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# Installing R packages with Internet Access in Your Project

In this lab, you will install the R package `gapminder`. The name of the package you will need to install for different labs may change.

## General Goals

In this lab, you will learn the following:

- How to install R packages in Cocal with a paid server.

## Installing R packages

Do the following steps:

1. Go to your `Home` directory.
2. Create a Linux Terminal file in your project or open one that is already in your project.
3. When the prompt appears (~$), type an upper-case letter `R` and press the Return Key. This will start up R.
4. Type `install.packages("gapminder")`

The following will be displayed:

```
Installing package into ‘/usr/local/lib/R/site-library’
(as ‘lib’ is unspecified)
Warning in install.packages("gapminder") :
  'lib = "/usr/local/lib/R/site-library"' is not writable
Would you like to use a personal library instead? (yes/No/cancel)
```

5. Type `yes`.

```
The following will be displayed:
Would you like to create a personal library
‘~/R/x86_64-pc-linux-gnu-library/4.1’
to install packages into? (yes/No/cancel)
```

6. Type `yes` again.

The following will be displayed:

```
trying URL 'https://cloud.r-project.org/src/contrib/gapminder_0.3.0.tar.gz'
Content type 'application/x-gzip' length 2110951 bytes (2.0 MB)
==================================================
downloaded 2.0 MB

* installing *source* package ‘gapminder’ ...
** package ‘gapminder’ successfully unpacked and MD5 sums checked
** using staged installation
** R
** data
*** moving datasets to lazyload DB
** inst
** byte-compile and prepare package for lazy loading
** help
*** installing help indices
*** copying figures
** building package indices
** testing if installed package can be loaded from temporary location
** testing if installed package can be loaded from final location
** testing if installed package keeps a record of temporary installation path
* DONE (gapminder)
```

This means that the package `gapminder` is installed in your project.

7. (Optional) If you type in the command: `.libPaths()`

Then something similar to the following will be displayed:

```
[1] "/home/user/R/x86_64-pc-linux-gnu-library/4.1"
[2] "/usr/local/lib/R/site-library"
[3] "/usr/lib/R/site-library"
[4] "/usr/lib/R/library"
>
```

**Note:** You can see that the library directory was created and appears in line [1].

Next time you install another package in your project's `Home` directory, you will not need to create the library because it has already been created (you will NOT run steps 5 and 6).