

# Packages in R

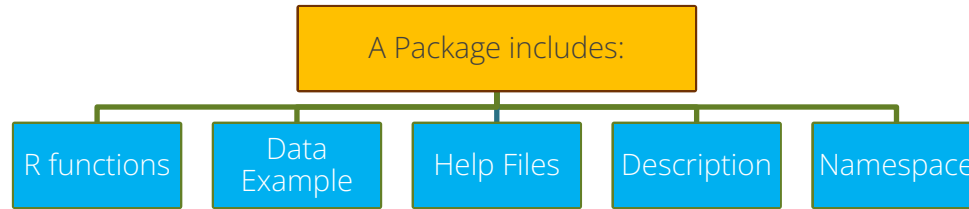


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# R Package

- A Package is a collection of R functions with comprehensive documents.



- A core set of packages is included with the installation of R. Additional packages are required for specific requirements.
- These packages can be downloaded from various repositories like CRAN, or from bioconductor, GitHub, R Forge and many more.
- Packages extend the functionality of R by enabling additional visual capabilities, statistical methods, and discipline-specific functions, just to name a few.

# Installing a Package from CRAN?

To install a package



Type the following command in R console:

**`install.packages("pkg")`**

- `pkg` is the name of package whose current version should be downloaded from the repositories.
- For example :

```
install.packages("dplyr")
```

# How to Use a Package?

To use a package



Invoke the following command to load the package into the ongoing session: **library(<pkg>)**

Example :

```
library(dplyr)
```

# Some useful Commands

- Removing Packages:

```
remove.packages("pkg")
```

Removes a specific package

- Updating Packages:

```
update.packages()
```

Updates all installed packages

- Installed Packages:

```
installed.packages()
```

Returns a list of all installed packages

- Finding Available Packages:

```
available.packages()
```

Returns a list of all available packages

# Some Useful R Packages

For loading data	<ul style="list-style-type: none"><li>• readr, data.table, foreign, Hmisc</li></ul>
For data management	<ul style="list-style-type: none"><li>• data.table, dplyr, reshape2, tidyr</li></ul>
For data visualization	<ul style="list-style-type: none"><li>• ggplot2</li></ul>
For predictive modeling	<ul style="list-style-type: none"><li>• car, caret, e1071, party, ROCR</li></ul>
For Time Series	<ul style="list-style-type: none"><li>• forecast, zoo</li></ul>

# Quick Recap

In this session, we learnt the concept of packages and how to make use of it. Here is a quick recap:

R commands  
to work with  
packages

- `install.packages("pkg")`
- `library(<pkg>)`
- `remove.packages("pkg")`
- `available.packages()`
- `update.packages()`

Useful R Packages

- `readr`, `data.table`, `foreign`, `Hmisc`,  
`dplyr`, `reshape2`, `tidyr`, `ggplot`,  
`car`, `caret`, `e1071`, `party`, `ROCR`  
`forecast` and `zoo`