**Difference between R Programming and Python Programming**

Below are some major differences between R and Python:

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| **Feature** | **R** | **Python** |
| **Introduction** | R is a language and environment for statistical programming which includes statistical computing and graphics. | Python is a general-purpose programming language for data analysis and scientific computing |
| **Objective** | It has many features which are useful for statistical analysis and representation. | It can be used to develop GUI applications and web applications as well as with embedded systems |
| **Workability** | It has many easy-to-use packages for performing tasks | It can easily perform matrix computation as well as optimization |
| **Integrated development environment** | Various popular R IDEs are Rstudio, RKward, R commander, etc. | Various popular Python IDEs are Spyder, Eclipse+Pydev, Atom, etc. |
| **Libraries and packages** | There are many packages and libraries like [ggplot2](https://www.geeksforgeeks.org/r-language/data-visualization-with-r-and-ggplot2/), [caret](https://www.geeksforgeeks.org/r-language/visualize-confusion-matrix-using-caret-package-in-r/), etc. | Some essential packages and libraries are [Pandas](https://www.geeksforgeeks.org/pandas/pandas-tutorial/), [Numpy](https://www.geeksforgeeks.org/python/numpy-tutorial/), [Scipy](https://www.geeksforgeeks.org/machine-learning/data-analysis-with-scipy/), etc. |
| **Scope** | It is mainly used for complex data analysis in data science. | It takes a more streamlined approach for data science projects. |

**Ecosystem in R Programming and Python Programming**

**Python** supports a very large community of general-purpose data science. One of the most basic uses for data analysis, primarily because of the fantastic ecosystem of data-centric Python packages. Pandas and NumPy are one of those packages that make importing and analyzing, and visualization of data much easier.

**R Programming** has a rich ecosystem to use in standard machine learning and data mining techniques. It works in statistical analysis of large datasets, and it offers a number of different options for exploring data and It makes it easier to use probability distributions, apply different statistical tests.