# User Documentation

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## Prerequisites

To get started with the app, there are several packages you need to install beforehand:

1. `shiny` v1.7.1
2. `stats` v4.0.5 (to use the `pr.comp` function to find PCA)
3. `devtools` v2.4.2 (to install packages from github)
4. `ggbiplot` v0.55 (to plot the PCA result)

## Installation

1. If you are using RStudio, usually both `shiny` and `stats` package have been preinstalled along with your RStudio. If not, then you can install them using the command `install.packages('shiny')` or `install.packages('stats')`

2. Next, install the `devtools` package with `install.packages(devtools)`. `devtools` will allow you to install packages from external sources (e.g. Github)

3. Now we can install the `ggbiplot` package: `install_github("vqv/ggibplot")`.

## Usage

1. Click "Run App" on the right hand corner.
2. Play around with the slider and the figure on the right side will interactively plot the reduced dimension (PCA) along with the data points from `mtcars` dataset.