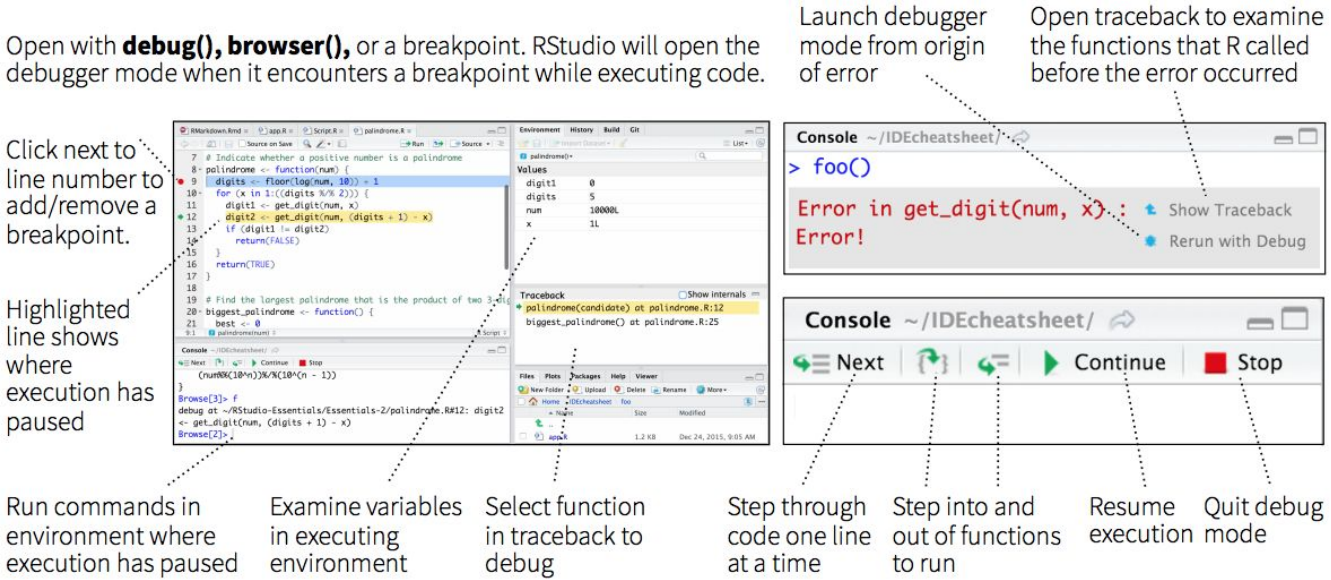
Useful commands in base R

```
debug(), undebug()
debugonce()
browser()
traceback()
options(error = browser), options(error = NULL)
```

Debugging Shiny applications

Automatic `traceback()` in error output, in RStudio and application log
Can set a breakpoint in the server function
Use `browser()` everywhere else (ui, sourced file, etc.)
`options(shiny.error = browser)`
Tracing: `cat(file=stderr(),...)`, `options(shiny.reactlog=TRUE)`

Debug mode in RStudio (from the IDE cheat sheet)



https://github.com/rstudio/cheatsheets/raw/master/rstudio-ide.pdf

Resources

Debugging with RStudio
https://support.rstudio.com/hc/en-us/articles/205612627-Debugging-with-RStudio

Debugging Shiny applications
https://shiny.rstudio.com/articles/debugging.html

"Debugging, condition handling, and defensive programming" in *Advanced R*
http://adv-r.had.co.nz/Exceptions-Debugging.html

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