Initialize api on digital ocean

* Log into DO,
* Go to Create button on top, select Droplet, leave Ubuntu selected as default, click option to view Snapshots, select “firstworkingversion…”, select lowest cost option, then tell it to build the droplet
* (old notes: go to Images, and click “firstworkingversion”, then pick memory and Create)
* Then go into git bash and ssh into server
  + “ssh root@<enter server IP address here>” (get server IP from DO site after creating server (e.g. “ssh root@67.205.136.0”)
  + Ctrl-D to log out of SSH session
* After logging in to server with SSH, can navigate in chrome to IP address and should see html response with “Bad Gateway”, but nginx comes up without error, so confirms nginx has start
* Then we need to run plumber.R file to initiate api
  + Can also initialize api via R session
  + create R interface in git bash by using command “R”
  + Should see R initialization output
  + Hit “Control+D” to end R interface (no need to submit command)
  + Make sure your working directory is correct for api
  + Call “source(‘plumber.R’)”
  + Optionally, can also initialize api direction from git bash, without starting R session, by typing “Rscript plumber.r”
  + Git bash should show r output as script runs, started on port 8000
  + Then you can test api by entering ip address as url in chrome
    - E.g. “67.205.136.0/echo?msg=test%20with%20space”
  + Whether you started api by R session or from git bash, to stop the server from running api, just hit Control+C while in git bash (no submitting command) – should see “Execution halted” and server’s root prompt returned
* To add/delete/rename/relocate/etc files on the server, the easiest way is to ssh into the server, then open R session (just type “R” as described above), and then library(fs) etc as usual on laptop
* Alternatively, to create new folders on server, use command “mkdir <name folder here>”
* The path to this folder is then “/root/<name of folder>”, since /root is default path
* To delete files, use command “rm <enter file name here>”
* To delete folders (and recursively delete any file/folder contents), use command “rm –r <name folder here>”
* Can also safely delete just empty folders (will fail if folder contains files), using command “rmdir <name folder here>”
* After deleting files, go to DO site, Images tab, and take snapshot of server
* To upload files, log out of root (Control+D)
* Then enter command “scp <enter relative local file path/name here> root@<enter server ip>:/root/<enter server folder name>/<enter desired file name>”
* E.g. “scp picture.jpeg [root@67.205.136.0:/root/plumber\_test\_api/picture.jpeg](mailto:root@67.205.136.0:/root/plumber_test_api/picture.jpeg)”
* - it should give upload confirmation in git bash immediately
* After uploading files, go to DO site, Images tab, and take snapshot of server
* To install new r package, ssh into server
  + E.g. “ssh [root@67.205.136.0](mailto:root@67.205.136.0)”
* Start interactive R session
  + E.g. “R”
* Install package like in normal R session
  + E.g “install.packages(‘magick’)”
* For some packages, it may require an operating system-level dependency
  + Error message should say something about “configuration failed because <enter file name> could not be found, try installing <enter file name> from Ubuntu, etc”
  + The DO server runs Ubuntu, so you need to install this file
  + Exit R session, and run command “apt-get install <enter file name>”
* After installing packages, go to DO site, Images tab, and take snapshot of server

To end current instance of server, go to DO site -> Droplets -> for server click “More” -> then hit “Destroy”