Variance Shiny App

Example here of how to inject custom html into the Shiny page

<https://gist.github.com/jcheng5/4052973>

Step 1, parse the pileupfile to get

Most likely pb, variance overall and % breakdown for each nucleotide

Step 2 make SVG of that parsed info

Step 3 combind several of these parsed info into one image

March 23 2018

Added css that will calculate the total width needed by the SVG so it can be scrolled in the browers

TODO: Select a certain region to view (cut out the buffer region) Done : 3/26/18

TODO: build consensus of several alignments, make a consensus and divergence image

* Built a function get\_consensus, it needs de bugging – done

TODO: create a function for building a difference from consensus string sequence

* Build now test it : Try and find an example there is a difference or diagnostic marker to show, the output in the pileup files is not all of the same length

TODO: build a function that takes a list of files and

* Creates the variance image
  + Test it:
* Creates the normal image
* - done
* Creates the Diagnostics Image
  + DONE DAMMIT!

April 7 2018

TODO:

* Label the rows: DONE DAMMIT!
* Build a key : Done I quit()
  + For consensus
  + For variance
  + For normal
* Build the shiny app
  + File selection
  + Front and back trim selection

April 9th 2018

Framework the app

* Read in files
  + Group / reads
  + Single ref
* Select trim length: kind of works…. I think
* Image option choices: done
* Have a field for displaying the image: done

DOCKER! Use Rocker

April 11 2018

Docker install fails on ubuntu, attemping on Windows

Plot difference between MCM7 RPB1 & RPB2 – you will need different filter lengths for each on to do this

Variance Metric, Total Variance / number of bps \* 100 (the 100 is just so it is not a super super small number but something that does not require scientific notation)

April 13 2018

* Added extra lines to several of the pileups to make them all line up
* Created a named pileup directory

TODO: make the label names be the file names minus the path and the file extension :done

April 14, 2018

Make more space for the names: Done increased 80px to 120px

Build an image for consensus and variance combined: Done

April 17, 2018

Build a docker image that have BWA sametools and shiny support installed

BWA: done

* Testing bwa functionality: done, vim does not work, or it just takes a long time to load

Use the following docker command to start an interactive container

This is an example of the command for mounting a directory into the docker container, the serial number at the end is the docker image ID

docker run --rm -it --mount type=bind,source="$(pwd)"/VV/app/,target=/app/stuff 794860699e98

SAMtools:

Built an image that shoud have everything in it, Shiny, Samtools and BWA

April 18 2018

Try and launch the Shiny app from docker

From with in app dir  
R -e "shiny::runApp('vv-app.R')"

Need to install package‘plotrix’

R -e "install.packages('plotrix')"

I added that to the Dockerfile, not going to rebuild the image right now though, that takes forever…