GBIB installation

In general I followed here: https://genome.ucsc.edu/goldenpath/help/gbib.html

First, Install oracle virtualbox, I used instructions from here: https://linuxize.com/post/how-to-install-virtualbox-on-ubuntu-18-04/

But is type: sudo apt install virtualbox-6.1

Then to run it type: virtualbox

After downloading the gbib:

$ unzip gbib.zip

Start VirtualBox, select Machine >> Add, and open the file browserbox.vbox.

\*\* Here I had an error. There is a need to configure the BIOS to allow virtualization.  
I contacted the support unit and they did it (Alex).

* A terminal is opened.
* When you first run the VM it is uploading files.
* Start internet browser and go to : 127.0.0.1:12345. This should show you the UCSC genome browser.
* After updates I close the terminal and choose the 'send the shutdown signal'
* I changed the VM RAM settings to ~8gb
* I connected the folder where the fasta files are. (as explained in the web page)
* Check that the folders are there by going to 127.0.0.1:1234/folders (after running the VM)
* Go to offline mode by typing in the gbib terminal: gbibOffline

To upload my genomic data I need to make an assembly hub.

I go to: <https://genome.ucsc.edu/goldenpath/help/hubQuickStartAssembly.html#blatGbib>

* And look under: 'Starting a Blat and In-Silico PCR enabled Assembly Hub on GBiB'
* I made hub file, genomes file following instructions here: <http://genomewiki.ucsc.edu/index.php/Assembly_Hubs>
* And also made trckDb file with instructions from here: <https://genome.ucsc.edu/goldenpath/help/trackDb/trackDbHub.html>
* To upload annotations track I needed to convert the gff to bigbed. I used instructions from here: https://genome.ucsc.edu/goldenPath/help/hubQuickStartSearch.html

Make Assembly hub from fasta

http://genomewiki.ucsc.edu/index.php/GBiB:\_From\_download\_to\_BLAT\_at\_assembly\_hubs