**1. Give the wget command to download the Lab3 folder on GitHub (found in data/Lab3) to your computer. (The file is on Canvas as well if you'd like to manually download it, but please give the command to download from GitHub.)**

wget https://github.com/raw-lab/BINF2111/blob/main/data/Lab3.tar.gz

**2. Give the command to extract and unzip the Lab3 folder.**

tar -xvzf Lab3.tar.gz

**3. Give the command to unzip lab3_EFMCounts.csv.gz (found in the Lab3 folder you just extracted/unzipped).**

gunzip lab3_EFMCounts.csv.gz

**4. Use the printf command to answer the following questions in a text file. Each answer should be on a new line.**

**What is your name?**
**How are you doing today?**
**When is your birthday?**
**Is there anything you are still confused about?**

printf "Liza Gugieva \nI am doing well \nJanuary 26th \nI do not know how I will remember all of these commands" >question4file.txt

**5. Give the command to print all but the 3rd, 4th, and 5th columns of lab3_EFMCounts.csv into a new file.**
cut -f3-5 -d "," lab3_EFMCounts.csv --complement >newEFMfile.txt

**6. Give the command(s) to count the number of images that are of high quality in lab3_EFMCounts.csv. Hint: Image quality occurs in column 7.**
cut -d ',' -f7 lab3_EFMCounts.csv | grep -c "high"

**7. Provide two unique commands to convert lab3_EFMCounts.csv to a TSV. Both commands cannot use the same base command (use sed & tr, sed & awk, etc. instead of sed & sed).**
cat lab3_EFMCounts.csv | tr -s ',' '\t' >lab3_EFMCounts.tsv

sed 's/,/\t/g' lab3_EFMCounts.csv > lab3_EFMCounts.tsv

**8. Using lab3_EFMCounts.csv OR the TSV you created in question 7, find the top 10 images with the highest counts. Hint: Counts are in column 6.**
sort -k 6nr lab3_EFMCounts.tsv | head

**9. Give the command(s) to write a bash script that, when ran, will print out "Hello World". Be sure that the file ends in .sh!**

printf 'Hello World' >question9.sh

**10. Using any text editor, give the steps/commands to create a new file, write "This is the answer to lab 3, question 10.", and save and exit. You are not allowed to use printf or echo.**

- Command: nano question10.txt
- Type in: This is the answer to lab 3, question 10.
- Press: Shift x
- Press: Y to save
- Press: Enter to exit