PLB812_Lab1 Genomic File Download Verification


```
(base) -bash-4.2$ pwd
/mnt/home/mitch987
(base) -bash-4.2$ ls
Documents            miniconda3                          mitch987@hpcc.msu.edu:hom           mitch987@hpcc.msu,?.edu:homemitch987minicondaSolanum
homemitch987miniconda3  Miniconda3-latest-Linux-x86_64.sh   mitch987@hpcc.msu.edu:homemitch987??[Cminiconda3Solanum  mitch987@msu.edu:????????[C?[C?[C?[C?[C?[C?
homemitch987mobaxterm   Miniconda3-latest-Linux-x86_64.sh.1  mitch987@hpcc.msu.edu:homemitch987miniconda3Solanum      PLB812
(base) -bash-4.2$ cd miniconda3/
(base) -bash-4.2$ ls
bin  compiler_compat  condabin  conda-meta  envs  etc  include  lib  LICENSE.txt  pkgs  share  shell  Solanum  ssl  x86_64-conda_cos6-linux-gnu  x86_64-conda-linux-gnu
(base) -bash-4.2$ cd Solanum/
(base) -bash-4.2$ ls
Genomic  RNA_Seq
(base) -bash-4.2$ cd Genomic/
(base) -bash-4.2$ ls
Stuberosum_686_v6.1.annotation_info.txt     Stuberosum_686_v6.1.gene_exons.gff3         Stuberosum_686_v6.1.repeatmasked_assembly_v6.1.gff3
Stuberosum_686_v6.1.cds.fa                  Stuberosum_686_v6.1.gene.gff3               Stuberosum_686_v6.1.softmasked.fa
Stuberosum_686_v6.1.cds_primaryTranscriptOnly.fa  Stuberosum_686_v6.1.hardmasked.fa     Stuberosum_686_v6.1.transcript.fa
Stuberosum_686_v6.1.defline.txt             Stuberosum_686_v6.1.protein.fa              Stuberosum_686_v6.1.transcript_primaryTranscriptOnly.fa
Stuberosum_686_v6.1.fa                      Stuberosum_686_v6.1.protein_primaryTranscriptOnly.fa
(base) -bash-4.2$
```

PLB812_Lab1 Genomic File Download Verification (.fa) screenshots

PLB812_Lab1 Genomic File Download Verification
(.gff) screenshot

```
(base) -bash-4.2$ head *.gff3
==> Stuberosum_686_v6.1.gene_exons.gff3 <==
##gff-version 3
##assembly-version v6.1
##assembly-site MSU
##annot-version v6.1
##annot-site MSU
##species Solanum tuberosum
chr01   phytozomev13    gene    432461  449161  .       -       .       ID=Soltu.DM.01G000010.v6.1;Name=Soltu.DM.01G000010
chr01   phytozomev13    mRNA    432509  449161  .       -       .       ID=Soltu.DM.01G000010.4.v6.1;Name=Soltu.DM.01G000010.4;pacid=51152355;longest=0;Parent=Soltu.DM.01G00
0010.v6.1
chr01   phytozomev13    exon    448964  449161  .       -       .       ID=Soltu.DM.01G000010.4.v6.1.exon.1;Parent=Soltu.DM.01G000010.4.v6.1;pacid=51152355
chr01   phytozomev13    five_prime_UTR  448964  449161  .       -       .       ID=Soltu.DM.01G000010.4.v6.1.five_prime_UTR.1;Parent=Soltu.DM.01G000010.4.v6.1;pacid=51152355

==> Stuberosum_686_v6.1.gene.gff3 <==
##gff-version 3
##assembly-version v6.1
##assembly-site MSU
##annot-version v6.1
##annot-site MSU
##species Solanum tuberosum
chr01   phytozomev13    gene    432461  449161  .       -       .       ID=Soltu.DM.01G000010.v6.1;Name=Soltu.DM.01G000010
chr01   phytozomev13    mRNA    432509  449161  .       -       .       ID=Soltu.DM.01G000010.4.v6.1;Name=Soltu.DM.01G000010.4;pacid=51152355;longest=0;Parent=Soltu.DM.01G00
0010.v6.1
chr01   phytozomev13    five_prime_UTR  448964  449161  .       -       .       ID=Soltu.DM.01G000010.4.v6.1.five_prime_UTR.1;Parent=Soltu.DM.01G000010.4.v6.1;pacid=51152355
chr01   phytozomev13    CDS     448775  448858  .       -       0       ID=Soltu.DM.01G000010.4.v6.1.CDS.1;Parent=Soltu.DM.01G000010.4.v6.1;pacid=51152355

==> Stuberosum_686_v6.1.repeatmasked_assembly_v6.1.gff3 <==
##gff-version 3
chr01   lcMask  similarity      1       200619  .       +       .       ID=2434818.1;Name=rpt1;length=200619
chr01   lcMask  similarity      200621  250848  .       +       .       ID=2434818.2;Name=rpt2;length=50228
chr01   lcMask  similarity      250868  274935  .       +       .       ID=2434818.3;Name=rpt3;length=24068
chr01   lcMask  similarity      274943  294476  .       +       .       ID=2434818.4;Name=rpt4;length=19534
chr01   lcMask  similarity      294522  298483  .       +       .       ID=2434818.5;Name=rpt5;length=3962
chr01   lcMask  similarity      298491  333370  .       +       .       ID=2434818.6;Name=rpt6;length=34880
chr01   lcMask  similarity      333379  340185  .       +       .       ID=2434818.7;Name=rpt7;length=6807
chr01   lcMask  similarity      340193  388593  .       +       .       ID=2434818.8;Name=rpt8;length=48401
chr01   lcMask  similarity      388597  411295  .       +       .       ID=2434818.9;Name=rpt9;length=22699
(base) -bash-4.2$
```

SRR download/fastq-dump Verification

```
(base) -bash-4.2$ cd mitch987
(base) -bash-4.2$ cd miniconda3
(base) -bash-4.2$ pwd
/mnt/home/mitch987/miniconda3
(base) -bash-4.2$ ls
bin  compiler_compat  condabin  conda-meta  envs  etc  include  lib  LICENSE.txt  pkgs  share  shell  Solanum  ssl  x86_64-conda_cos6-linux-gnu  x86_64-conda-linux-gnu
(base) -bash-4.2$ cd Solanum
(base) -bash-4.2$ ls
Genomic  RNA_Seq
(base) -bash-4.2$ cd RNA_Seq/
(base) -bash-4.2$ ls
SRR5448223              SRR5448225_1.fastq.gz  SRR5448227            SRR5448228_2.fastq.gz  SRR5448230_1.fastq.gz  SRR5448232             SRR5448233_2.fastq.gz  SRR5448235_1.fastq.gz
SRR5448223_1.fastq.gz  SRR5448225_2.fastq.gz  SRR5448227_1.fastq.gz  SRR5448229            SRR5448230_2.fastq.gz  SRR5448232_1.fastq.gz  SRR5448234             SRR5448235_2.fastq.gz
SRR5448223_2.fastq.gz  SRR5448226            SRR5448227_2.fastq.gz  SRR5448229_1.fastq.gz  SRR5448231            SRR5448232_2.fastq.gz  SRR5448234_1.fastq.gz
SRR5448224              SRR5448226_1.fastq.gz  SRR5448228            SRR5448229_2.fastq.gz  SRR5448231_1.fastq.gz  SRR5448233            SRR5448234_2.fastq.gz
SRR5448225              SRR5448226_2.fastq.gz  SRR5448228_1.fastq.gz  SRR5448230            SRR5448231_2.fastq.gz  SRR5448233_1.fastq.gz  SRR5448235
(base) -bash-4.2$
```

fastq.gz unzip Verification

```
(plb812) -bash-4.2$ ls
fastqc_data             SRR5448225_1.fastq  SRR5448227_1.fastq  SRR5448229_1.fastq  SRR5448231_1.fastq  SRR5448233_1.fastq  SRR5448235_2.fastq
SRR5448223_2.fastq  SRR5448225_2.fastq  SRR5448227_2.fastq  SRR5448229_2.fastq  SRR5448231_2.fastq  SRR5448233_2.fastq
SRR5448224_1.fastq  SRR5448226_1.fastq  SRR5448228_1.fastq  SRR5448230_1.fastq  SRR5448232_1.fastq  SRR5448234_1.fastq
SRR5448224_2.fastq  SRR5448226_2.fastq  SRR5448228_2.fastq  SRR5448230_2.fastq  SRR5448232_2.fastq  SRR5448235_1.fastq
(plb812) -bash-4.2$
```

```
(base) -bash-4.2$ head SRR5448235_1.fastq
@SRR5448235.1 FCC3MNJACXX:6:1101:1499:2149# length=100
GTTCCGGAAGCATGCTTCTTCTTCAGAGCATCAATCAGATCATTTGCATAGAGGTAAGGATCGGTAGGCATCCCAATCACTCCAGCACCTCCATGATCAC
+SRR5448235.1 FCC3MNJACXX:6:1101:1499:2149# length=100
CCCFFFFFHHHHFIJIJJJJJJJJJIGHGHIJJJGHGIGIIIJJIIIIJIGIJJJIFFHIIJIHGI;CBHHHHHHFFDFEEEEEEDDDDDDDDDDDCDDDDED
@SRR5448235.2 FCC3MNJACXX:6:1101:1529:2072# length=100
CNCCCAGAAAGTTTGGAGTTGTTGCTGCAATTGTTGCTGCTGCTGCTGATGAATGTGCTGATAAGCGAGCTGATGTTGTGCCATCTGGGCTGACGAAGCA
+SRR5448235.2 FCC3MNJACXX:6:1101:1529:2072# length=100
C#1ADDFFGHHFFIEIHHHHJIJJJJIIJIJIJJJEHIJIGIIIJIJJJJJGHJGIHIHIHEIGGII:FHEGHEE@DEFBEFCCECCCDDDDBDDDDB?=?B>
@SRR5448235.3 FCC3MNJACXX:6:1101:1625:2080# length=100
GCCACACTCATTTGTTCCTCTCCTAATCTTGAAGTATCCATCTTCACCCCAGCCTCTATTCCAAGAATTAACAATGAGCCAATAGTCCTCTCCTTGCTCA
(base) -bash-4.2$
```