

Name: Douglas W.

Project Title: Famous Viral Pathogens- Entry-level Taxonomy and Pathology

Term: Fall 2018

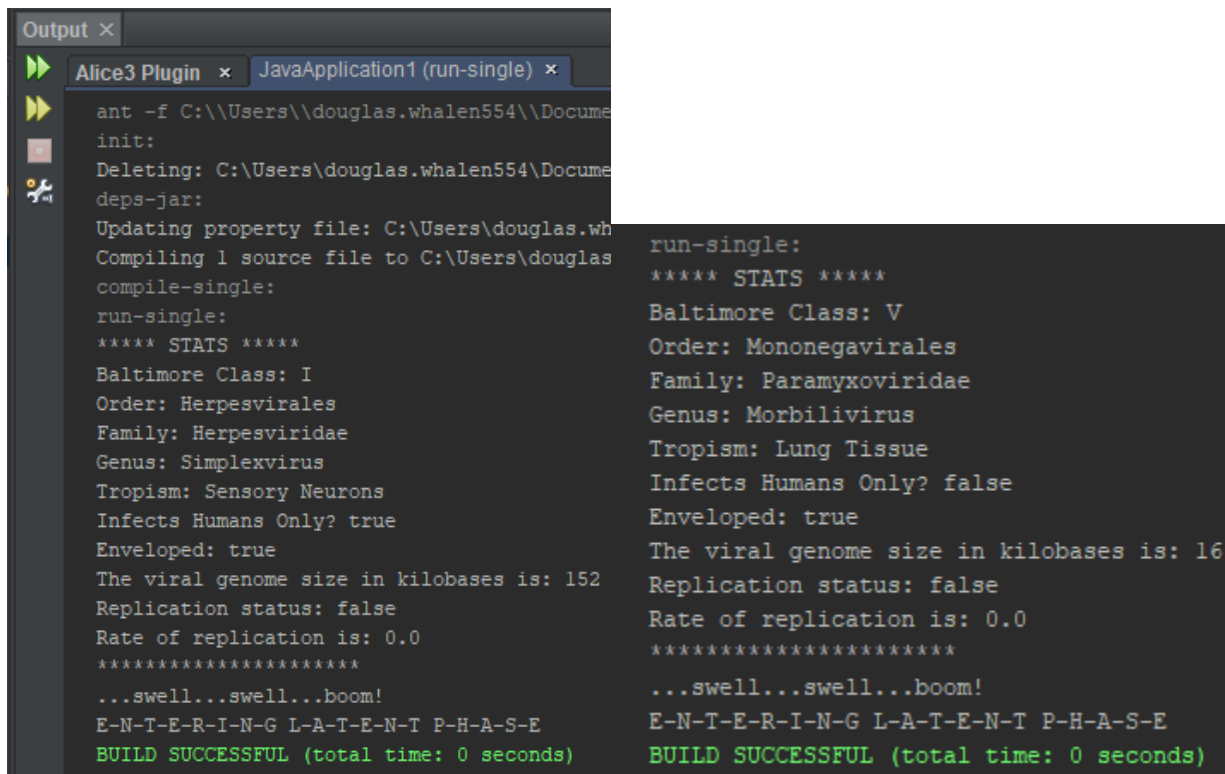
Course Name/ Number: CIT 111 - Introduction to Programming: Java

School Name: Community College of Allegheny County/ North Campus

Access Instructions: <https://github.com/microbiologydouglas/CIT111F2018FinalProjectWhalen.git>

Description: Depending on which file is called, my program produces entry-level taxonomic and pathogenesis data on six viruses. These viruses were selected because I love them, and it made me feel closer to them to work on this program. The purpose of my program is educational. I cannot definitively invent/ extrapolate an application for my program beyond undergraduate virology coursework study materials, but theoretically, the project could be expanded to a more robust, comprehensive encyclopedic application for clinical/ laboratory personnel who need a fast reference in a more user-friendly reference than the currently available, and unwieldy, canons in use today (e.g. *Fields Virology*).

Screen-shots:



```
ant -f C:\Users\douglas.whalen554\Documents\Alice3Plugin\build.xml init:
Deleting: C:\Users\douglas.whalen554\Documents\Alice3Plugin\build\classes
deps-jar:
Updating property file: C:\Users\douglas.whalen554\Documents\Alice3Plugin\build\classes
Compiling 1 source file to C:\Users\douglas.whalen554\Documents\Alice3Plugin\build\classes
compile-single:
run-single:
***** STATS *****
Baltimore Class: I
Order: Herpesvirales
Family: Herpesviridae
Genus: Simplexvirus
Tropism: Sensory Neurons
Infects Humans Only? true
Enveloped: true
The viral genome size in kilobases is: 152
Replication status: false
Rate of replication is: 0.0
*****
...swell...swell...boom!
E-N-T-E-R-I-N-G L-A-T-E-N-T P-H-A-S-E
BUILD SUCCESSFUL (total time: 0 seconds)

run-single:
***** STATS *****
Baltimore Class: V
Order: Mononegavirales
Family: Paramyxoviridae
Genus: Morbillivirus
Tropism: Lung Tissue
Infects Humans Only? false
Enveloped: true
The viral genome size in kilobases is: 16
Replication status: false
Rate of replication is: 0.0
*****
...swell...swell...boom!
E-N-T-E-R-I-N-G L-A-T-E-N-T P-H-A-S-E
BUILD SUCCESSFUL (total time: 0 seconds)
```

Useful learning resources: <https://viralzone.expasy.org/>

Ideas for future development: pull virus graphics, images, and especially viral genome data from the web (ViralZone, NCBI, Broad Institute, Max-Planck-Gesellschaft, L'Institut Pasteur, RIKEN, etc.)