COMP 3006 Programming Assignment 3

Assignment 3.1:

Simulate a population exponential growth system xdot = a * x where
x0 is the value of x at t=0,
a is a parameter,
t is time,
xdot is the rate of change of x,
and x is the population.
Use the following: x0 = 100; a=5; d_t = 0.1 the time step of the simulation.
Start t at 0 and stop the simulation at t=2.
Hint: see lesson 2 slide 12 on an object subject to gravity.
Hint: see also https://docs.python.org/3/library/csv.html
Display the results of each time step and write the results to a csv file.

Assignment 3.2:

Construct by hand a CSV file with headers and with each row holding:
atomic number, symbol, and name of each of the first 8 elements in
the periodic table of elements. Write a Python program to read in that
data. Display the lines in reverse order by atomic number.

Upload a zip of your source file(s).