# SP3176 The Universe Assignment 2
# THREE-BODY PROBLEM

During the IS, we did the simulation of a 2-body system. For this assignment, you will code a 3-body system of your choice.

Set up an account in trinket.io and write your 3-body system code using Glowscript. Feel free to use modify the code given in the lecture notes. Once you are satisfied with your code and simulation, set it to "Public".

If you can't get enough of seeing moving balls, there are a couple of extra/optional things you can do, just for fun!

There are many beautiful stable solutions for the 3-body problem. You may like to see if you can replicate one of those. An obvious extension is to do a 4-body problem. Or 5 or 6 or 7?? Do a leapfrog/Verlet numerical scheme. The numerical solution given by the author in the blog is done with the Euler scheme, which does not conserve energy. Thus even for a two body problem, the solution do not give a truly stable orbit.

## Administrative details

This assignment is to be done individually, and holds 5% weightage of the total assessment for The Universe.

For the report, submit a pdf document consisting of the url/link to your code in Trinket (remember to set to public), a screen shot of your favourite snapshot of the simulation, and a paragraph to describe your 3-body system. File name for the assignment submission: A2_A#######X.pdf where A#######X is your matric number.

Submission: Week 5 Saturday