Aim: To develop a probability space on where life is most likely to exist in the galaxy, and where we should be looking for it

1. Develop a plan for the project
2. Research the factors involved in whether or not life can form. A good starting point is the Drake Equation. Ideally we want to be able to get numerical values for all these factors, and use them to scale a plot of the stars in the galaxy. Some factors won't be constants but will also be plots themselves (i.e. where the supernovae of the galaxy are). Start a draft for the introduction of the report (which should cover this research and what factors we chose).
3. Create a plot of where the star systems are in the galaxy - maybe a 2D graph, or possibly a 3D representation (maybe extension). Put in the constant factors.
4. Continue coding in, put all the factors in and create the probability plot. Make sure we can change the variables easily and alter how the plot looks.
5. Research and early coding should take a while, so finishing it off here, and then starting on the next steps if done.
6. Research factors in where to look for life - there are different things we can look for to find life, and each can be easier/harder, take different amounts of effort and are different levels of effectiveness
7. Create plots of how far we can look for life, and how effective our search is gonna be in different areas, and overlay that onto our plot for where life most likely is, to find where we're most likely to find life.
8. Finish up writing the report - Done!
   * Bare minimum is to plot where life is most likely to be found in the galaxy, and then write the report on that (stage 4 with the report)
   * Extension would be to plot it in 3D (x & y are positions and z is probability), and to include more variables

Flowchart of a part of the code:

