

## Requirements

- The program is required to create a simulation of evolution using strings as subjects.
- A GUI is required to gather inputs as settings could be different every time the program is run.
- The program requires any textual output
- The program file character encoding can not be the general ascii as I will be using some non-ascii character
- The program must be able to run on both Windows and MAC operating systems for no additional cost
- I need to be able to create the program myself
- The program must be able to be operated by anyone
- Must be completed in 1 school year

## Feasibility Study

- Financial feasibility:
  - No cost
- Technical feasibility:
  - Made the project far in advance to see if I had the skills to complete such a project. I was successful.
  - Python 3 was used as it could:
    - Be ran for no additional cost
    - Can easily be encoded in non-ascii formats
    - The built in module TKInter could be used to create a GUI menu
    - Has a simple console output
    - The optional module matplotlib can be installed to add a graph feature to the program
- Operational feasibility:
  - Will not take a lot of processing power, as long as the PC has python 3 installed (no additional cost) it will run.
  - The inputs can be simply done by anybody with the assistance of help menus and presets
  - The program has more features if the correct modules are installed, but all modules are completely optional
- Scheduling feasibility
  - As an alpha version of the program was made to test technical feasibility and the extensive time limit of this project, there should be no problems involving scheduling
- Constraints on the development
  - No constraints limited the development of the program in any way and as such the program was not changed to comply