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Description générée automatiquement

**REMINDER--RunProg**

In part 1 of the project, you wrote a class that will be used in another Python script to manipulate the Seqgen program.

<http://tree.bio.ed.ac.uk/software/seqgen/>

<https://github.com/rambaut/Seq-Gen/releases/tag/1.3.4>

As a reminder, Seqgen is a programmer that allows you to simulate the evolution of nucleic acids or amino acids (DNA), along a phylogeny.

After having learned how Seqgen works, you have created a RunProg class that will allow you to manage the execution of this program. The diagram below describes the different services:

Description of the services

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**-\_\_init\_\_( self, paramsFile ) :** The constructor takes as parameter a configuration file indicating the execution parameters of the program Seqgen.-run( self ) : Starts the execution of Seqgen with the parameters provided to the constructor. The execution must not be blocking.

**-status( self ) :** returns the execution status : (0) not started / (1) in progress / (2) successfully finished / (3) finished with a failure

**-reset ( self ):** Allows you to interrupt the execution and erase all traces of it.-view ( self ): returns the list of generated files.

**-read ( self , fichier ) :** return the content of the file (if it exists).

**-\_\_parametresValides\_\_() :** indicates if there is at least one bad parameter in the configuration file.

Note: If the parameters are not valid, an error message is displayed and the program stops. The error message indicates the parameter with the problem.

**Part 2**

In this part of the project, you have to set up the Flask web server and pages. (https://flask.palletsprojects.com/en/2.2.x/). You must create a web page that will allow you to enter, in a form, the parameters, which will be sent to the server for the execution of your program.

You can do the sending in a standard way or by using AJAX calls. The execution of your program must follow the following steps:

**1-**Send the form data to the server (20 points) : The form data must be validated before being sent. The server will return a response (a page and/or a code) telling you that the data has been successfully received and that the program is ready to be executed.

**2-**Start the execution of the program and know its status (20 points) : By clicking on a link or a button, you will start the execution of the program. A page indicating the status of the execution will appear. This page can be updated automatically or by clicking on a refresh link.

**3-**Reset the execution (10 points) : By clicking on a link or a button, you will be able to interrupt the execution of the program and delete all the generated files.

**4-**Get the list of files (10 points) : When the execution is finished, you must display the list of generated files.Get the content of a file (10 points)By clicking on one of the files you will display its content.

**5-**Your interface must be user-friendly, sufficiently documented, and easy to use (30 points).