

Functional Requirements:

Section/ Requirement ID	Requirement Definition
FR 1	The system shall display the current statistics of COVID-19 by web source.
FR 2	The system shall run pre-built simulations with pre-inputted information.
FR 3	The system shall run simulations based on the input of the users.
FR 4	The system shall run visual simulations based on the input of the users.
FR 5	The system shall display an error message when input is missing or invalid.
FR 6	The system shall display bar time-incremented bar graphs based on the simulations run.
FR 7	The system shall display all of the choices available to the user.
FR 8	The system shall perform mathematical computations to run the simulations.
FR 9	The system shall email the results of a finished simulation when requested.
FR 10	The system shall allow edits to the inputs of a simulation after a finished simulation.
FR 11	The system shall keep at least the most previous run simulation for display.
FR 12	The system shall be composed as a .exe file.

Non Functional Requirements:

Section/ Requirement ID	Requirement Definition
NFR 1	The system shall receive as input, for simulations total population size,...
NFR 2	When the user requests the current COVID-19 data, the system will web scrape a reliable website to post the most up-to-date information.
NFR 3	The project will be coded in python.
NFR 4	It will take no more than one minute for the system to successfully send an email.
NFR 5	The system shall allow the user to return home at any point.
NFR 6	The system shall use a database for all information.
NFR 7	It will take the system no more than one minute to successfully run a simulation.
NFR 8	The system shall allow the user to exit at any time.