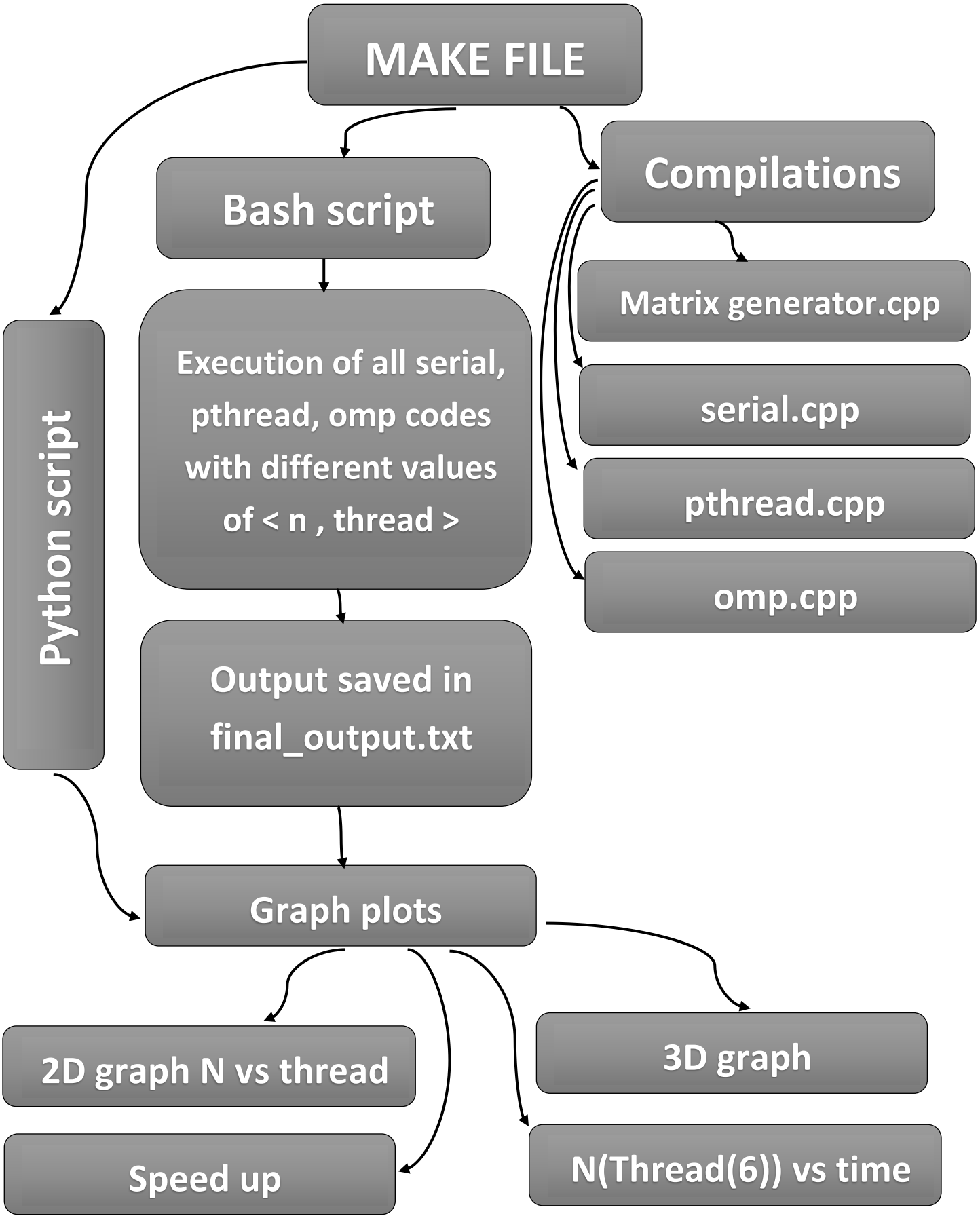
CONTROL FLOW



FILE DESCRIPTION

File names	Description
matrix_generator.cpp	Contains source code to generate random $n \times n$ matrix.
serial.cpp	Contains source code to get LU decomposition of input matrix *serially*. (i.e.,without multithreading)
pthread.cpp	Contains source code to get LU decomposition of input matrix parallelly. (using *pthreads*)
omp.cpp	Contains source code to get LU decomposition of input matrix parallelly. (using *OpenMp*)
looper.sh	Bash file used to :- • save matrix generated by input.cpp to a text file. • Run all the 3 implementations i.e., *serial*, *pthread* and *openmp* for different matrix sizes and threads. • Save the output of the above three programs into a text file so that they can be used for analysis.
graph_plot.py	Python script used to :- • Read data from the text file that contains all the output. • Plot required graphs by making use of appropriate libraries.
MakeFile	Contains code to invoke all the above mentioned programs and finally display required plots on screen.