Attention – the interface does not work in computers with M1chip

Minimum task:
- Follow the steps in the github folder (https://github.com/MoroMatteo/markerlessBoMI_FaMa/blob/main/README.md) to install the program and to familiarize with it.
- Perform a reaching task (last step of the github instructions).

Modify the script main_reaching.py in order to add the following parts (you should add the code where you find the comment # [ADD CODE HERE] !).
- In the class MainApplication add the code to create a checkbox called 'Mouse control' (the code should be similar to the one created to allow the selection of different joints at the beginning). The checkbox should represent a Boolean variable that controls if the user wants to control directly the real mouse or the virtual mouse. The variable that controls if the checkbox is selected should be given as input to the function start_reaching.

Depending on it, if the checkbox is selected, the main application (function start_reaching) should control the real cursor and not the virtual one.
[Hint: use one of the functions of the package pyautogui]

Medium task:
- When selected the 'Mouse control' checkbox implement the right/left click of the mouse.

[Hint: use one of the functions of the package pyautogui. The click can for example be executed if the cursor do not move (or do not move so much) for some milliseconds. For this case check the script reaching.py how it is implemented the reaching task (when the targets are considered as correctly reached).]
- Download a virtual keyboard and try to use it with the computer cursor.

Maximum task:
You can (examples):
- modify the interface: for example (i) add dimensionality reduction methods; (ii) improve visually the interface; (iii) learn how to use mediapipe (the pose estimator algorithm) and add more joints in the first step …
- decide to control virtual objects, robots (with ROS) …
- think about having multiple players.

You can be as creative as you want.

Please carefully comment all the sw you write, send us the commented sw, a report, a video of the use of the interface you implemented.