**NLP integration**

The first thing to do was to install spacy. In my case I have used the **pycharm community IDE**, because it allows to create a **requirements.txt** file where we can put all the libraries that we need to download and pycharm will do the rest for us. Then we continue by importing spacy into the code. After that we need to download the pretrained English model **‘en\_core\_web\_sm’** from spacy. And then we use spacy to analyze the grammatical meaning of the command that the user will give in the input box. The spacy model determines the relation between noun and verb between the command that we give and also make sure that every object has the right association each time there is an iteration on the tokens. The main challenge was with the jump command because the character on the screen only jumps when the user type ‘jump ‘with the space after, before pressing enter. I also tried other NLP libraries but spacy was the one that gave me the best result. A part from that everything was simple. And also, I added a loading screen at the beginning that last for 5 seconds and also some text in the screen to make the tool more user-friendly especially for kids. Also, to make a better user experience, I added a simple brown line so that the user can see the circle jumping and coming back. I also added a try catch error so that even if the user types some random thing, the screen will not crash. And finally, there is an after-images effect to give a shadow to the circle so that the user can see that the circle is in a moving mode or jumping mode. Some future improvements can be voice command, an assessment system, reward system to allow the user to increase his score based on his performance, better user interface,…