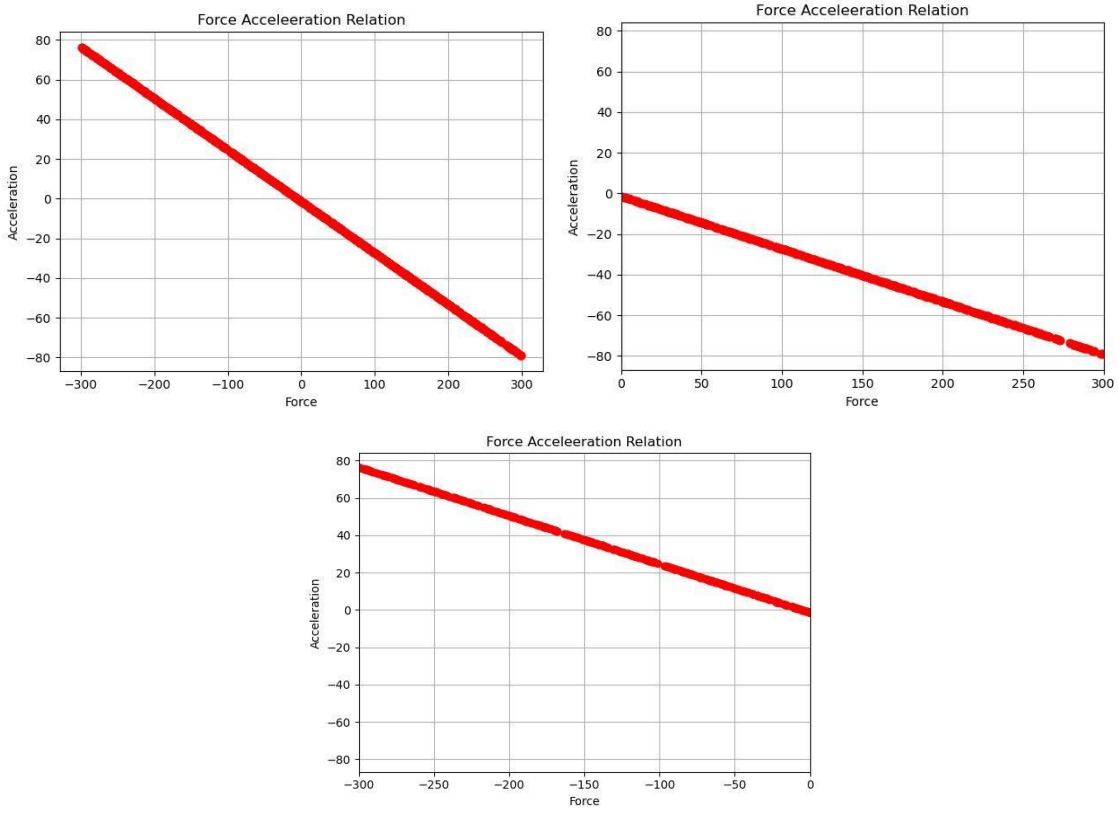
Project is based on python and consists of multiple modules, each responsible for some action. To Run the project you have to run file called main.py in main directory. At the end of the file you can see the function that runs the whole structure and is responsible for turning on and off the features. First function, is responsible for collecting data of mass/friction/force acceleration which is printed once in console. After that you can run the same code using next functions for many times to collect data and save it to mass_force_acceleration.csv. Which then I opened in Excel and tried to look for interesting data. Moreover, after that we can collect the same data without updating mass and friction which possible thanks to imitational of physical objects in code. In the same way I have to tried to update only one of the objects or few of them and observed how data changes. Afterall I decided to look for connection between force an acceleration. First of all plot_controller will print the graphs of connection for us from the CSV file acquired



So the connection between them is very straightforward and it is pretty much a clear linear regression as it should be coming from the formulas that we have got. However, let's make the problem more interesting. What if we have only the dataset, and were not able to find the formulas. And we have to solve the same problem of finding acceleration. We can write a simple model of linear regression that fits the data collected and will be able to predict acceleration for given force. That is what module Prediction Controller does.