**Project Report**

Project name-

Physics Engine Simulator using JS.

Project Outline:

In this program I have aimed to create a simple to use physics engine in which you can define your physics formula, create a function for the same and add it to the environment to get a simulation.

1. You have to type the formula in a function and define it in particle class or global and then define it as a lambda function in Environment.

2. After this just include this property in the addfunction () call to include it in the environment.

3. Your Simulation is ready to go.

4. By default, I have already defined some functions like collision , combine , Universal Attraction , gravity , move , drag , bounce etc.

5. You can check out all these features when you play the demo.

Steps taken to complete project:

1. I learnt a lot about arrays and classes in JS.

2. Worked on how to make it easy to use and come up with idea to link string names of functions with functions themselves and include it later in the environment.

3. Created a demo environment with 3 particles and you can toggle between different states of environment by clicking on the checkboxes.

4. Also added a functionality to move the balls with help of mouse as well.

5. Structured the package into different files each, for specific purpose and linked them together.

References:

1. <https://www.w3schools.com/js/js_array_methods.asp>
2. <https://github.com/zense/Canvas-Competition/>
3. <https://stackoverflow.com/>
4. <http://www.yaldex.com/games-programming/0672323699_ch13lev1sec2.html>
5. Some Peter Collinridge courses.