

Project Update - 1

Participants :

Vinit Doke (190260018)
Tanyut Sharma (190100128)
Mihir Agre (190260030)

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1 Work Done

Here are the highlights of the work done on the project:

- created functions to initialise the particle system with given input parameters
- numba optimised force functions for the ‘Clusters’ particle system
- Integrator and Acceleration Updater to propagate the system
- created solver.py as the main file for the backend calculations
- temporary visualisation in matplotlib to visualise results in real-time

2 Stats

Here is a table summarizing the progress made on the project:

Team Member	Lines of Code
Vinit Doke	354
Tanyut Sharma	286
Mihir Agre	122

Table 1: Lines of Code

3 Git Logs (last 5 commits per author)

Here are the recent Git logs for the project:

3.1 Vinit Doke

```
commit 93733dd6ebd28bd21f8ef04fd47a3a74d570824a (HEAD -> separated_types, origin/separated_types)
```

```
Author: vinitdoke <54439587+vinitdoke@users.noreply.github.com>
```

```
Date: Fri Mar 17 13:54:18 2023 +0530
```

```
created 3DViz.py (incomplete)
```

```
commit 380df9c90767357f4d3fc69920c55a5b54a59f1a
```

```
Author: vinitdoke <54439587+vinitdoke@users.noreply.github.com>
```

```
Date: Fri Mar 17 13:36:35 2023 +0530
```

```
created 3DViz.py (incomplete)
```

commit 6d2bc4fcd66cabab3977486d8eb8cf55246d6e3b
Author: vinitdoke <54439587+vinitdoke@users.noreply.github.com>
Date: Fri Mar 17 13:29:25 2023 +0530

added iterations argument to main loop function

commit 86ca7e44936f900687c674d9a008cb78187c0ab6
Author: vinitdoke <54439587+vinitdoke@users.noreply.github.com>
Date: Fri Mar 17 12:58:16 2023 +0530

restructured solver.py to add benchmark and profiling functions

commit 417d55127e693156b2f057845571866ba48d513e
Merge: 6b8326a Odd879e
Author: vinitdoke <54439587+vinitdoke@users.noreply.github.com>
Date: Fri Mar 17 01:05:30 2023 +0530

3.2 Tanyut Sharma

commit Odd879e5066939bc76ec078b90631552b42017b8
Author: TanyutSharma <65652483+TanyutSharma@users.noreply.github.com>
Date: Fri Mar 17 00:14:18 2023 +0530

misc

commit adfe5ba1d9de8a8402a56a6310b727186094fdf9
Author: TanyutSharma <65652483+TanyutSharma@users.noreply.github.com>
Date: Thu Mar 16 23:58:36 2023 +0530

Extra display option

commit 85af5c1118808173e70329b5faefa6314d41d9ac
Author: TanyutSharma <65652483+TanyutSharma@users.noreply.github.com>
Date: Thu Mar 16 23:32:27 2023 +0530

Periodic boundary condition

commit 0813fe49f811f72527565451d7b601c77adad286
Author: TanyutSharma <65652483+TanyutSharma@users.noreply.github.com>
Date: Thu Mar 16 16:38:24 2023 +0530

misc

commit 9333b75aaab267f33a3e740c1534d9849b48c542
Author: TanyutSharma <65652483+TanyutSharma@users.noreply.github.com>
Date: Thu Mar 16 15:23:01 2023 +0530

stabilizy improvement

3.3 Mihir Agre

commit 14dbb54ea9d651d72c756bc1285951dc77e5ef55
Author: Divimon <115691044+Divimon@users.noreply.github.com>
Date: Wed Mar 15 04:12:03 2023 +0530

state_parameter.py changed

Function to give pos_x, pos_y, pos_z;
velo_x, velo_y, velo_z;

and interaction matrix for the particles made.

```
commit 7ffade8427f451695bb98b93136595679225dd04
Author: Divimon <115691044+Divimon@users.noreply.github.com>
Date: Thu Feb 16 21:39:44 2023 +0530
```

Added my Hello

```
commit 6c61dff7b40329da49646132f77015c970e36d14
Author: Divimon <115691044+Divimon@users.noreply.github.com>
Date: Sun Feb 12 01:04:46 2023 +0530
```

Update README.md

rollno added