# Installation and Execution Guide for Project3(MD-Simulation)

## Prerequisites

Before proceeding, ensure the following tools are installed on your system:

- GCC (GNU Compiler Collection)
- Make utility

### Steps to Install and Run the Code

#### 1. Download the Repository

Download or clone the Project3 repository to your local system:

```
git clone <repository_url>
```

Navigate into the project3 directory:

cd project3

#### 2. Understanding the Directory Structure

The repository has the following structure:

- Makefile: Contains commands for make, make run, and make clean.
- src/: Contains the source files (dynamics.c, utils.c, error.c).
- data/: Contains input files and will hold the generated output files.

#### 3. Build the Project

Compile the source code using the Makefile:

make

This will generate the necessary executable files.

#### 4. Run the Code

Execute the program using the following command:

make run

The program will process the input files located in the data/ directory and generate the output files in the same folder.

#### 5. Clean the Project

To remove any compiled files or intermediate build files, use the following command:

make clean

## Output

The output files will be generated in the data/ directory after successful execution.

For any issues or troubleshooting, refer to the project documentation or contact the repository maintainer.