**Processed Future Movement Project**

1. Overview
   1. Spring-boot version 3.2.1 & OpenJDK java 17 used.
   2. ‘System A’ Movement-specifications inserted into **H2 DB.**
   3. Schema.sql & data.sql will initialize **jdbc:h2:mem:movementdb**
   4. Apache commons csv dependency used to export csv file.
   5. *Input.txt* & *output.csv* added under ‘*src*’ folder.
   6. *Dockerfile* added to build docker image and run containers.
   7. Global-Exception handler added to handle custom exceptions.
   8. AOP: execution Time and errors logged using @Aspect.
   9. Unit Testing covered in *Controller & Service* classes.
2. Project Execution
   1. Run the source-code OR use Dockerfile to UP the REST API.
   2. No context path added, runs on tomcat in port 8080.
   3. [*http://localhost:8080/api/v1/json*](http://localhost:8080/api/v1/json) render the JSON result.
   4. [*http://localhost:8080/api/v1/csv*](http://localhost:8080/api/v1/csv) export output.csv file.
   5. *Done by In-memory processing using java stream functions.*
3. Sample Output.csv

**Client\_Information,Product\_Information,Total\_Transaction\_Amount**

CL-1234-0003-0001,CME-FU-N1-2010-09-10,285.0

CL-4321-0002-0001,SGX-FU-NK-2010-09-10,46.0

CL-1234-0003-0001,CME-FU-NK.-2010-09-10,-215.0

CL-4321-0003-0001,CME-FU-N1-2010-09-10,-79.0

CL-1234-0002-0001,SGX-FU-NK-2010-09-10,-52.0

1. Sample JSON

[{ "client\_Information": "CL-1234-0002-0001",

"product\_Information": "SGX-FU-NK-2010-09-10",

"total\_Transaction\_Amount": -52.0

},{

"client\_Information": "CL-1234-0003-0001",

"product\_Information": "CME-FU-N1-2010-09-10",

"total\_Transaction\_Amount": 285.0

},{

"client\_Information": "CL-4321-0002-0001",

"product\_Information": "SGX-FU-NK-2010-09-10",

"total\_Transaction\_Amount": 46.0

},{

"client\_Information": "CL-1234-0003-0001",

"product\_Information": "CME-FU-NK.-2010-09-10",

"total\_Transaction\_Amount": -215.0

},{

"client\_Information": "CL-4321-0003-0001",

"product\_Information": "CME-FU-N1-2010-09-10",

"total\_Transaction\_Amount": -79.0

}]