

# MPI IMPLEMENTATION

Steps:-

1. Set MPJ\_HOME environment variables:

```
export MPJ_HOME= --path to mpj directory --
```

2. Write your MPJ Express program (ScatterGather.java) and save it.

3. Compile : `javac -cp $MPJ_HOME/lib/mpj.jar ScatterGather.java`

4. Execute : `$MPJ_HOME/bin/mpjrun.sh -np 4 ScatterGather`

Code Link :-

[https://www.youtube.com/redirect?event=video\\_description&redir\\_token=QUFFLUhqbUhic0VjNGdXSWNLV3gzLXBjVDRYQIZQV2szUXxBQ3Jtc0tsV2ZXWDByb2ZzRW5sVWkwS3dDN19qWGFMMVJ2QIVyX2lfOG94emNldUE1Ym9leURtaFpXU2tOcUNqVE1qWjFnYUhXZjQ1aVhqUUhPYTIHQIZpMXdZRm03aDRzUWZ5cUVRbDIGVWdfWjlUNWVYNXRTMA&q=https%3A%2F%2Fdrive.google.com%2Ffile%2Fd%2F1mYaRd3uSFAjjqtfr2bJcR8PuxrHhMyaw%2Fview%3Fusp%3Dsharing1&v=wQJYLWPsyql](https://www.youtube.com/redirect?event=video_description&redir_token=QUFFLUhqbUhic0VjNGdXSWNLV3gzLXBjVDRYQIZQV2szUXxBQ3Jtc0tsV2ZXWDByb2ZzRW5sVWkwS3dDN19qWGFMMVJ2QIVyX2lfOG94emNldUE1Ym9leURtaFpXU2tOcUNqVE1qWjFnYUhXZjQ1aVhqUUhPYTIHQIZpMXdZRm03aDRzUWZ5cUVRbDIGVWdfWjlUNWVYNXRTMA&q=https%3A%2F%2Fdrive.google.com%2Ffile%2Fd%2F1mYaRd3uSFAjjqtfr2bJcR8PuxrHhMyaw%2Fview%3Fusp%3Dsharing1&v=wQJYLWPsyql)

YouTube Link for reference :- <https://youtu.be/wQJYLWPsyql>

OUTPUT:-

```
ml11@ml11-HP-280-Pro-G6-Microtower-PC:~$ java -version
openjdk version "1.8.0_352"
OpenJDK Runtime Environment (build 1.8.0_352-8u352-ga-1~18.04-b08)
OpenJDK 64-Bit Server VM (build 25.352-b08, mixed mode)
ml11@ml11-HP-280-Pro-G6-Microtower-PC:~$ export MPJ_HOME=/home/ml11/Desktop/MPI/mpj-v0_44
ml11@ml11-HP-280-Pro-G6-Microtower-PC:~$ javac -cp $MPJ_HOME/lib/mpj.jar ScatterGather.java
javac: file not found: ScatterGather.java
Usage: javac <options> <source files>
use -help for a list of possible options
ml11@ml11-HP-280-Pro-G6-Microtower-PC:~$ cd downloads
bash: cd: downloads: No such file or directory
ml11@ml11-HP-280-Pro-G6-Microtower-PC:~$ cd Desktop/
ml11@ml11-HP-280-Pro-G6-Microtower-PC:~/Desktop$ cd MPI/
ml11@ml11-HP-280-Pro-G6-Microtower-PC:~/Desktop/MPI$ javac -cp $MPJ_HOME/lib/mpj.jar ScatterGather.java
ml11@ml11-HP-280-Pro-G6-Microtower-PC:~/Desktop/MPI$ $MPJ_HOME/bin/mpjrun.sh -np 4 ScatterGather
MPJ Express (0.44) is started in the multicore configuration
Processor 0 has data: 10 20 30 40
Processor 0 has data: 10
Processor 0 is doubling the data
Processor 3 has data: 40
Processor 2 has data: 30
Processor 2 is doubling the data
Processor 1 has data: 20
Processor 3 is doubling the data
Processor 1 is doubling the data
Process 0 has data:
20 40 60 80
ml11@ml11-HP-280-Pro-G6-Microtower-PC:~/Desktop/MPI$
```