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PRN: 2020BTECS00112

High Performance Computing Lab Practical No. 7

Title of practical: Installation of MPI & Implementation of basic functions of MPI

Problem Statement 1:

Implement a simple hello world program by setting number of processes equal to 10

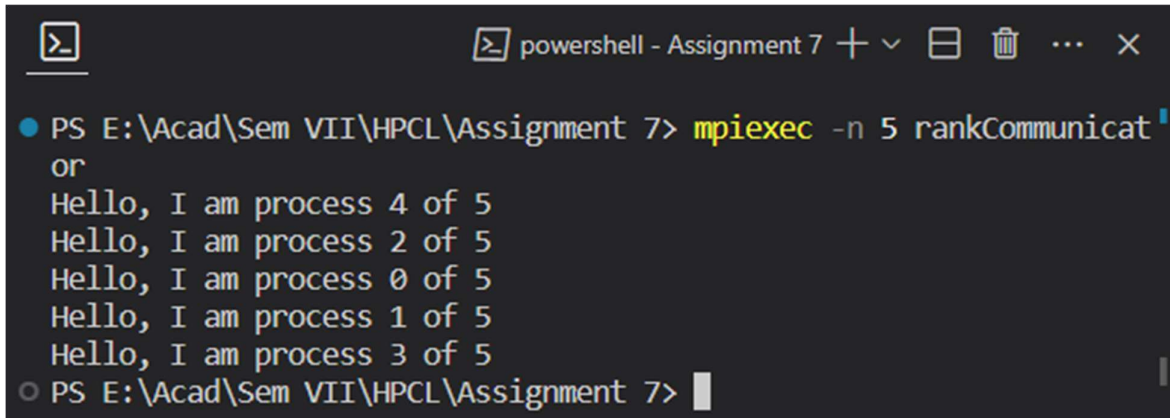
Screenshots:

```
● PS E:\Acad\Sem VII\HPCL> cd '.\Assignment 7'
● PS E:\Acad\Sem VII\HPCL\Assignment 7> mpiexec -n 10 helloworld
Hello, World! I am process 8 of 10.
Hello, World! I am process 9 of 10.
Hello, World! I am process 5 of 10.
Hello, World! I am process 6 of 10.
Hello, World! I am process 1 of 10.
Hello, World! I am process 7 of 10.
Hello, World! I am process 0 of 10.
Hello, World! I am process 3 of 10.
Hello, World! I am process 4 of 10.
Hello, World! I am process 2 of 10.
● PS E:\Acad\Sem VII\HPCL\Assignment 7> mpiexec -n 8 helloworld
This program is designed to run with 10 processes.
This program is designed to run with 10 processes.
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This program is designed to run with 10 processes.
This program is designed to run with 10 processes.
○ PS E:\Acad\Sem VII\HPCL\Assignment 7> █
```

Problem Statement 2:

Implement a program to display rank and communicator group of five processes

Screenshots:



```
powershell - Assignment 7 + v [ ] [ ] ... X
● PS E:\Acad\Sem VII\HPCL\Assignment 7> mpiexec -n 5 rankCommunicat
or
Hello, I am process 4 of 5
Hello, I am process 2 of 5
Hello, I am process 0 of 5
Hello, I am process 1 of 5
Hello, I am process 3 of 5
○ PS E:\Acad\Sem VII\HPCL\Assignment 7> |
```

GitHub: <https://github.com/meetgandhi692/HPC-Lab/tree/c2afb47464b5d2547f9217019268fdb36238abd/Assignment%207>