

Log On to the HPCC

```
ssh username@hpcc.msu.edu
```

ADVANCED WORKSHOP

```
module load powertools  
powertools
```

```
dev
```

```
nano ~/.bashrc
```

```
getexample  
getexample blender_farm  
cd ./blender_farm  
less blender_farm.qsub  
qsub blender_farm.qsub
```

```
getexample bowtie  
cd ./bowtie  
less ./bowtie.qsub  
qsub bowtie.qsub
```

```
module unload OpenMPI  
module load MVAPICH  
module swap OpenMPI MVAPICH
```

```
module load powertools  
getexample helloMPI  
./README
```

```
echo $HOST >> ./hostfile  
echo $HOST >> ./hostfile  
echo $HOST >> ./hostfile  
echo $HOST >> ./hostfile  
mpirun -np 4 -hostfile ./hostfile helloMPI
```