

In [1]:

```
import sys
sys.path.append("../..") # Position of sge library
import time
from sge import *
```

In [2]:

```
# Create script code
script_code = job.serial_job_script_code('mandelbrot.sh')
script_code = job.load_module('python3', script_code)
run_code = 'python3 mandelbrot.py $JOB_ID'
script_code = job.add_working_code(script_code, run_code)
print(script_code)
```

```
#!/bin/bash -l
#$ -l h_rt=0:10:0
#$ -l mem=1G
#$ -l tmpfs=15G
#$ -N mandelbrot.sh
#$ -cwd
```

```
module load python3
python3 mandelbrot.py $JOB_ID
```

In [3]:

```
script = job.generate_script('mandelbrot', script_code) # Generate script file
```

In [4]:

```
id = job.submit_job('mandelbrot.sh') # Submit job and remember the id
```

In [5]:

```
job.job_status(id)
```

Out[5]:

```
'The job 9243014 is queuing and waiting.'
```

In [6]:

```
while (job.job_status(id) != 'The job ' + id + ' does not exist.'):
    time.sleep(30) #Wait 30 seconds
print("The job " + id + " has finished")
```

```
The job 9243014 has finished
```

In [7]:

```
job.return_output('mandelbrot.sh', id)
```

Out[7]:

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In [8]:

```
job.return_error('mandelbrot.sh', id)
```

Out[8]:

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In [9]:

```
from IPython.display import Image  
Image_name = "mandelbrot" + id + ".png"  
Image(Image_name) # Show the image of Mandelbrot
```

Out[9]:

