# DS 7347
# High-Performance Computing (HPC) and Data Science
# Session 16

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Readings and Assignments

Lab Peer Review

Project Review

Session Question

Debugging Review

# Readings and Assignments

### Readings
None

### Project

- Prototype of multi-job Slurm submit script.
- Commit the script to your project repo
- Due 12:00 AM Central, Tuesday, June 21, 2022

# Lab Peer Review

## Lab Peer Review

### Group Discussion

- Assigned pairs will go to breakout rooms
- Discuss:
    - Progress
    - Problems
    - Ideas

### Comments

- Provide a summary of discussion concerning your lab progress and report in `assignments/lab_03.md`; note your peer reviewers name
- Commit `assignments/lab_03.md` to your class repo
- Due 12:00 AM Central, Tuesday, June 21, 2022

# Project Review

### 1-1 Discussion

- Progress
- Problems
- Ideas

Session Question

Tuesday: Find the bugs.

```python
#!/usr/bin/env python3

import random

def monte_carlo_pi(points):
    for i in range(points):
        s = 0
        x = random.random()
        y = random.random()
        if x**2 + x**2 < 1
            s = 1
    pi = 4 * s / points
    return pi

print(monte_carlo_pi(1000))
```

Thursday: Find the bugs.

```
1   #include <iostream>
2
3   int main() {
4       const unsigned long int m = 1000;
5       const unsigned int n = 1000;
6       float p = 1000
7
8       for (unsigned long int k = 0; k < p; ++i) {
9           for (unsigned long int j = 0; j < n; ++j) {
10              for (unsigned long int i = 0; i < m; ++k) {
11                  C[i][k] = A[i][j] * B[j][k]
12              }
13          }
14      }
15
16      return 0;
17
18
```

# Debugging Review

- Debuggers
- Common Debugger Commands
- Debugging Compiled Languages
- Compiled Language Debugging Process
- Debugging Python
- Distributed Debugging