
COMP1680 - Clouds, Grids and Virtualisation Coursework Report

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1. Executive Summary

2. Part 1: Parallel Processing using Cloud Computing

2.1. Analysis

2.2. Comparison

2.3. Recommendation

3. Part 2: Parallel Programming Exercise

3.1. Step 1

Here's an example of the Jacobi code with GitHub-style formatting:

```
1  #include <stdio.h>
2  #include <stdlib.h>
3  #include <math.h>
4  #include <sys/time.h>
5
6  #define TOP_TEMP      15.0
7  #define BOTTOM_TEMP   60.0
8  #define LEFT_TEMP     47.0
9  #define RIGHT_TEMP    100.0
10
11 void initialize_grid(double **grid, int n, int m) {
12     int i, j;
13
14     // Initialize interior points to 0
15     for (i = 1; i < n-1; i++) {
16         for (j = 1; j < m-1; j++) {
17             grid[i][j] = 0.0;
18         }
19     }
20
21     // Set boundary conditions
22     for (i = 0; i < n; i++) {
23         grid[i][0] = LEFT_TEMP;      // Left boundary
24         grid[i][m-1] = RIGHT_TEMP;   // Right boundary
25     }
26     for (j = 0; j < m; j++) {
27         grid[0][j] = TOP_TEMP;       // Top boundary
28         grid[n-1][j] = BOTTOM_TEMP;   // Bottom boundary
29     }
30 }
```

Listing 1. Example of Jacobi 2D Implementation

3.2. Step 2

3.3. Step 3

4. Conclusions