## Lab 5 Prob 1 & 2

- 1. The tid represents the thread number in the active process. This number is needed to distinguish between the various threads that might be created within one process group.
- 2. Pthread\_join suspends execution of the calling thread until the target thread terminates. That is, the parent process will wait until the threads complete whatever processing instructions they are given.
- 3. Pthread\_join is required; without it, the parent process would likely finish before its created threads, which would kill the threads, likely prematurely
- 4. The tid is the thread id: the unique identifier for the thread being passed in.
- 5. The tid does not belong to the parent thread, so you can pass it any thread id's created within the scope of the parent thread.

## Prob 1 Output: Creating thread 1 Creating thread 2 Creating thread 3 Goodbye from thread 2 Creating thread 4 Hello from thread 3 Hello from thread 1 Creating thread 5 Goodbye from thread 4 Creating thread 6 Hello from thread 5 Goodbye from thread 6 dherve@cslinux:~/cscd340/Lab 5/Prob 1\$ ./a.out Creating thread 1 Creating thread 2 Hello from thread 1 Creating thread 3

Goodbye from thread 2 Creating thread 4 Hello from thread 3 Creating thread 5 Goodbye from thread 4 Creating thread 6 Hello from thread 5 Goodbye from thread 6 dherve@cslinux:~/cscd340/Lab 5/Prob 1\$ ^C dherve@cslinux:~/cscd340/Lab 5/Prob 1\$ ./a.out Creating thread 1 Creating thread 2 Hello from thread 1 Creating thread 3 Creating thread 4 Goodbye from thread 2 Creating thread 5 Creating thread 6 Goodbye from thread 4 Hello from thread 5 Goodbye from thread 6 Hello from thread 3 dherve@cslinux:~/cscd340/Lab 5/Prob 1\$ ./a.out Creating thread 1 Creating thread 2 Hello from thread 1 Creating thread 3 Goodbye from thread 2 Creating thread 4

Creating thread 5 Hello from thread 3 Goodbye from thread 4 Creating thread 6 Hello from thread 5 Goodbye from thread 6 dherve@cslinux:~/cscd340/Lab 5/Prob 1\$ ./a.out Creating thread 1 Creating thread 2 Creating thread 3 Creating thread 4 Creating thread 5 Creating thread 6 Hello from thread 1 Goodbye from thread 2 Hello from thread 3 Goodbye from thread 6 Hello from thread 5 Goodbye from thread 4

## Prob 2 Output:

thread 2 filling array element 0 with 100 thread 3 filling array element 1 with 101 thread 3 filling array element 2 with 102 thread 3 filling array element 3 with 103 thread 3 filling array element 4 with 104 thread 3 filling array element 5 with 105 thread 3 filling array element 6 with 106

thread 3 filling array element 7 with 107 thread 3 filling array element 8 with 108 thread 3 filling array element 9 with 109 thread 3 filling array element 10 with 110 thread 3 filling array element 11 with 111 thread 3 filling array element 12 with 112 thread 3 filling array element 13 with 113 thread 3 filling array element 14 with 114 thread 3 filling array element 15 with 115 thread 3 filling array element 16 with 116 thread 3 filling array element 17 with 117 thread 3 filling array element 18 with 118 thread 3 filling array element 19 with 119 thread 3 filling array element 20 with 120 thread 3 filling array element 21 with 121 thread 3 filling array element 22 with 122 thread 3 filling array element 23 with 123 thread 3 filling array element 24 with 124 thread 3 filling array element 25 with 125 thread 3 filling array element 26 with 126 thread 3 filling array element 27 with 127 thread 3 filling array element 28 with 128 thread 3 filling array element 29 with 129 thread 3 filling array element 30 with 130 thread 3 filling array element 31 with 131 thread 3 filling array element 32 with 132 thread 3 filling array element 33 with 133 thread 3 filling array element 34 with 134 thread 3 filling array element 35 with 135 thread 3 filling array element 36 with 136 thread 3 filling array element 37 with 137 thread 3 filling array element 38 with 138 thread 3 filling array element 39 with 139 thread 3 filling array element 40 with 140 thread 3 filling array element 41 with 141 thread 3 filling array element 42 with 142 thread 3 filling array element 43 with 143 thread 3 filling array element 44 with 144 thread 3 filling array element 45 with 145 thread 3 filling array element 46 with 146 thread 3 filling array element 47 with 147 thread 3 filling array element 48 with 148 thread 3 filling array element 49 with 149 thread 3 filling array element 50 with 150 thread 3 filling array element 51 with 151 thread 3 filling array element 52 with 152 thread 3 filling array element 53 with 153 thread 3 filling array element 54 with 154 thread 3 filling array element 55 with 155 thread 3 filling array element 56 with 156 thread 3 filling array element 57 with 157 thread 3 filling array element 58 with 158 thread 3 filling array element 59 with 159 thread 3 filling array element 60 with 160 thread 3 filling array element 61 with 161 thread 3 filling array element 62 with 162 thread 3 filling array element 63 with 163 thread 3 filling array element 64 with 164 thread 3 filling array element 65 with 165 thread 3 filling array element 66 with 166 thread 3 filling array element 67 with 167 thread 3 filling array element 68 with 168 thread 3 filling array element 69 with 169 thread 3 filling array element 70 with 170 thread 3 filling array element 71 with 171 thread 3 filling array element 72 with 172 thread 3 filling array element 73 with 173 thread 3 filling array element 74 with 174 thread 3 filling array element 75 with 175 thread 3 filling array element 76 with 176 thread 3 filling array element 77 with 177 thread 3 filling array element 78 with 178 thread 3 filling array element 79 with 179 thread 3 filling array element 80 with 180 thread 3 filling array element 81 with 181 thread 3 filling array element 82 with 182 thread 3 filling array element 83 with 183 thread 3 filling array element 84 with 184 thread 3 filling array element 85 with 185 thread 3 filling array element 86 with 186 thread 3 filling array element 87 with 187 thread 3 filling array element 88 with 188 thread 3 filling array element 89 with 189 thread 3 filling array element 90 with 190 thread 3 filling array element 91 with 191 thread 3 filling array element 92 with 192 thread 3 filling array element 93 with 193 thread 3 filling array element 94 with 194 thread 3 filling array element 95 with 195 thread 3 filling array element 96 with 196 thread 3 filling array element 97 with 197 thread 3 filling array element 98 with 198 thread 3 filling array element 99 with 199 thread 3 filling array element 0 with 100 thread 2 filling array element 0 with 100