**Project 7**

**Due Sunday 4/3/2016 by 11:59 PM**

**No delay is accepted**

**For each day late submission 2 points penalty is incurred.**

**Post your answer in the folder *Project 7 on the blackboard.***

**If you have any question please email me at mbadii@pace.edu**

Expand example 4 in page 10 of lecture 7 to add (any) sixteen integers. You need to hire 8 processors.

Note: Only copy/paste from the line that is written:

*//Write your complete program (including the header files) below this line. Assume there is nothing above this line.*

**Answer**

#include <stdio.h>

int \*a;

void f()

{

int b;

b = m\_get\_myid();

switch(b)

{

case 0: a[0] += a[1]; break;

case 1: a[2] += a[3]; break;

case 2: a[4] += a[5]; break;

case 3: a[6] += a[7]; break;

case 4: a[8] += a[9]; break;

case 5: a[10] += a[11]; break;

case 6: a[12] += a[13]; break;

case 7: a[14] += a[15];

}

m\_sync();

switch(b)

{

case 0: a[0] += a[2]; break;

case 1: a[4] += a[6]; break;

case 2: a[8] += a[10]; break;

case 3: a[12] += a[14];

}

m\_sync();

switch(b)

{

case 0: a[0] += a[4]; break;

case 1: a[8] += a[12];

}

}

void main()

{

int x[] = {8, 19, 7, 15, 7, 13, 12, 14, 5, 9, 3, 25, 44, 12, 6, 1};

int i;

initialize();

a = (int \*)shmalloc(16\*sizeof(int));

for(i = 0; i < 16; i++)

a[i] = x[i];

m\_set\_procs(8);

m\_fork(f);

m\_kill\_procs();

printf("sum = %d\n", a[0] + a[8]);

clean();

}