Homework Assignment 9 – due on Monday, December 4 (Midnight)

Description of Assignment:
Write a CUDA program(saxpy.cu) for the following C program.

```
#include <stdio.h>
#define N 10000
#define THREADS 100

int main()
{
   float A[N], B[N], B2[N], X, Y;
   int i;

   for (i=0; i<N; i++)
      A[i] = i*2;


   X = 1.23;
   Y = 2.34;
   for (i=0; i<N; i++) {
      B2[i] = A[i]*X + Y; // B2 is used for checking
   }

   // check the results
   for (i=0; i<N; i++)
      if (fabs(B[i]-B2[i]) > 0.001
         printf("%d: %f %f\n",i, B[i], B2[i]);
}
```

How to proceed:
(1) The array A[N] is copied from CPU to GPU to compute SAXPY.
(2) The array B[N] is computed by GPU and copied from GPU to CPU.
(3) The array B2[N] is computed by CPU and compared with B[N] to check correct results.

Turnin the assignment:
After done your assignment, type **turnin** in your current working directory. You can retype the command at any time before the due date.