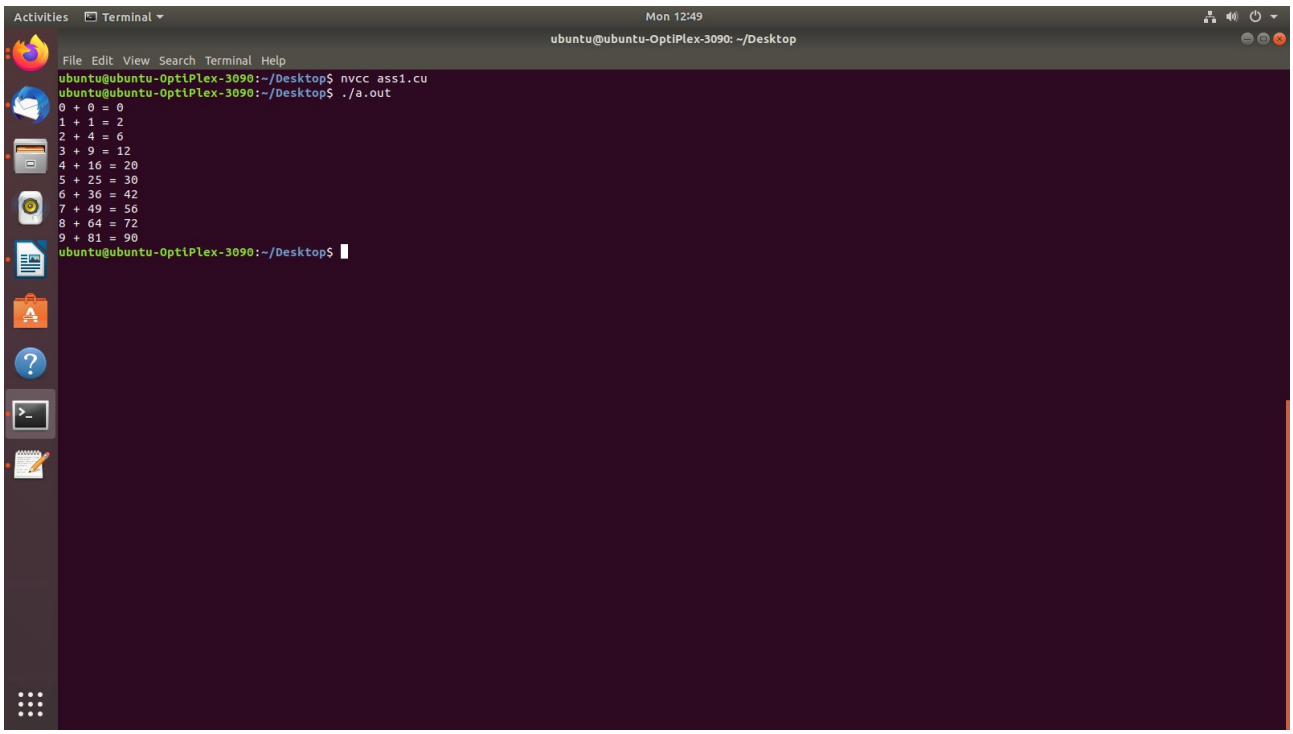
Cuda Program for Vector Addition

```
#include "stdio.h"
#include "math.h"
#define N 10
void add ( int *a, int *b, int *c )
{
            int tid = 0; // this is CPU zero, so we start at zero

            while  (tid < N)
            {
                  c[tid] = a[tid] + b[tid];
                   tid += 1;  // we have one CPU, so we increment by one
             }
}

int main( void )
{
             int a[N], b[N], c[N];

           // fill the arrays 'a' and 'b' on the CPU
           for (int i=0; i<N; i++)
           {
                     a [i] = i;
                     b[i] = i * i;
            }
         add( a, b, c );

       // display the results
           for (int i=0; i<N; i++)
         {
               printf( "%d + %d = %d\n", a[i], b[i], c[i] );
          }
  return 0;
}
```

```
ubuntu@ubuntu-OptiPlex-3090:~/Desktop$ nvcc ass1.cu
ubuntu@ubuntu-OptiPlex-3090:~/Desktop$ ./a.out
0 + 0 = 0
1 + 1 = 2
2 + 4 = 6
3 + 9 = 12
4 + 16 = 20
5 + 25 = 30
6 + 36 = 42
7 + 49 = 56
8 + 64 = 72
9 + 81 = 90
```


Activities
Terminal
Mon 12:49
ubuntu@ubuntu-OptiPlex-3090: ~/Desktop
File Edit View Search Terminal Help
ubuntu@ubuntu-OptiPlex-3090:~/Desktop$ nvcc ass1.cu
ubuntu@ubuntu-OptiPlex-3090:~/Desktop$ ./a.out
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