

EXPERIMENT NO:4

CUDA PROGRAM FOR ADDITION OF TWO LARGE VECTORS

```
#include <bits/stdc++.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;
}
```

OUTPUT:



```
input
-7 + 49 = 42
-8 + 64 = 56
-9 + 81 = 72

...Program finished with exit code 0
Press ENTER to exit console.
```