```
Original CUDA Program
                                                                                                     Modified CUDA Program
#include <cuda.h>
                                                                                       #include <cuda.h>
#define tid threadIdx.x
                                                                                        #define tid threadIdx.x
#define N 1024
                                                                                        #define N 1024
__device__ inline void inlined(int *A, int offset) {
                                                                                        __device__ inline void inlined(int *A, int offset) {
    int temp = A[tid + offset];
                                                                                           int temp = A[tid + offset];
    A[tid] += temp;
                                                                                           A[tid] += temp;
__global__ void inline_test(int *A, int offset) {
                                                                                        __global__ void inline_test(int *A, int offset) {
    inlined(A, offset);
                                                                                           inlined(A, offset):
                                                             Change the
int main() {
                                                          default kernel call
                                                                                        int main() {
    int *a;
                                                                                           int *a;
    int *dev a;
                                                                                           int *dev a;
    int size = N*sizeof(int);
                                                                                           int size = N*sizeof(int);
    cudaMalloc((void**)&dev a, size);
                                                                                           cudaMalloc((void**)&dev a. size):
    a = (int*)malloc(N*size):
                                                                                           a = (int*)malloc(N*size):
    for (int i = 0; i < N; i++)
                                                                                           for (int i = 0; i < N; i++)
        a[i] = i;
                                                                                               a[i] = i;
    cudaMemcpy(dev_a,a,size, cudaMemcpyHostToDevice);
                                                                                           cudaMemcpy(dev_a,a,size, cudaMemcpyHostToDevice);
    inline test<<<1, N>>>(dev a, 2); — — —
                                                                                           ESBMC verify kernel intt(inline test, 1, N, dev a, 2);
    cudaMemcpy(a,dev_a,size,cudaMemcpyDeviceToHost);
                                                                                           cudaMemcpy(a,dev_a,size,cudaMemcpyDeviceToHost);
    free(a);
                                                                                           free(a);
    cudaFree(dev a);
                                                                                           cudaFree(dev a);
    return 0:
                                                                                           return 0:
```