

```
cudaMalloc((void**)&Ad, msize * msize * sizeof(float));
cudaMalloc((void**)&Bd, msize * msize * sizeof(float));
cudaMalloc((void**)&Cd, msize * msize * sizeof(float));

cudaMemcpy(Ad, A, msize * msize * sizeof(float), cudaMemcpyHostToDevice);
cudaMemcpy(Bd, B, msize * msize * sizeof(float), cudaMemcpyHostToDevice);

dim3 dimGrid((msize/tile), (msize/tile));
dim3 dimBlock((tile/task), (tile/task));

size_t SharedMemBytes = 2 * tile * msize * sizeof(float);
mul<<<dimGrid, dimBlock, SharedMemBytes>>> (Ad, Bd, Cd, msize, tile, task);

cudaMemcpy(C, Cd, msize * msize * sizeof(float), cudaMemcpyDeviceToHost);
```

```
// End of the main function
```