

```
// Initialize the memory on the host  
float *a, *b, *c;
```

```
// Allocate host memory  
a = (float*)malloc(sizeof(float) * (N*N));  
b = (float*)malloc(sizeof(float) * (N*N));  
c = (float*)malloc(sizeof(float) * (N*N));
```

```
// Initialize the memory on the device  
float *d_a, *d_b, *d_c;
```

```
// Allocate device memory  
cudaMalloc((void**)&d_a, sizeof(float) * (N*N));  
cudaMalloc((void**)&d_b, sizeof(float) * (N*N));  
cudaMalloc((void**)&d_c, sizeof(float) * (N*N));
```