

```
// Initialize the memory on the host
```

```
float *a, *b, *out;
```

```
// Allocate host memory
```

```
a = (float*)malloc(sizeof(float) * N);
```

```
b = (float*)malloc(sizeof(float) * N);
```

```
out = (float*)malloc(sizeof(float) * N);
```

```
// Initialize the memory on the device
```

```
float *d_a, *d_b, *d_out;
```

```
// Allocate device memory
```

```
cudaMalloc((void**)&d_a, sizeof(float) * N);
```

```
cudaMalloc((void**)&d_b, sizeof(float) * N);
```

```
cudaMalloc((void**)&d_out, sizeof(float) * N);
```