

### 1) Characters a-z, A-Z counting

count the occurrences of each english character (i.e. a-z, A-Z) in text.

The TA recommended not to print the results on the screen, so to see the output numbers, please uncomment line 225.

#### How?

The `__global__ charcmp()` checks the existence of each english character at all indexes of text (one thread for an index), and fills 1 for true cases in another array `cnt`. Then the `thrust::reduce()` sums `cnt` for each character.

### 2) Swap every pair of characters in a word

swap every pair of 2 English characters in each word.

The result is stored back to text.

#### How?

The head of each word is passed to `__global__ SwitchText()`. For each word, the # of threads launched is as the # of chars between every two heads.

The block size is set as 2. Every thread loads one char, checks if the two chars (loaded by itself and its neighbor) are English characters, and swaps them for true cases.