Fixed Size Storage

1. Storage for reviews, ordered by docIDs

2. Storage for (docIdStart, docIdEnd), ordered by productIDs

1. Compact Review Storage

docID = index + 1

productID(10B)	helpfulness numerator (2B)	helpfulness denominator (2B)	score (1B)
Z123456789	5	7	3
B123456789	0	1	2
...	...	...	...

← docID = 1

← docID = 2

2. docID pair storage

Ordered by productIDs.
Indices have no direct meaning, but can apply binary search via productIDs

range of reviews with lowest(by lexicographic order) productID

fromDocId(4B)	toDocId(4B)	productId(10B)
200	210	A123456789
40	45	A234567890
...	...	...
170	170	Z999999999

range of products with highest productID