

# Suffix Array, Burrows-Wheeler Exercise

CMSC423 Fall 2015

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Name(s):

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**Question 1.** ( $k$ -mer counting) Design an algorithm using a suffix array to output, for a given string  $S$  and integer  $k$ , **all** pairs  $(b, i)$  where  $b$  is  $k$ -mer occurring in  $S$  exactly  $i$  times.

**Question 2.** Compute the Burrows-Wheeler transform of string **abbaaba\$**.

**Question 3.** Write down the occurrence count matrix (LF mapping matrix) for the BWT you computed in Question 3.