COMS 4111 Intro to DB HW3 - Part 2 Normalization

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Q2.1

Write answers here.

a All the non-trivial functional dependencies in the closure that have only one attribute on the right ride are: $B \rightarrow C, C \rightarrow A, B \rightarrow A$.

b The minimal key of R is B.

Q2.2

Write answers here.

    a All the non-trivial functional dependencies in the closure that have only one attribute on the right ride are: $AB \rightarrow D, BD \rightarrow C, CD \rightarrow A, AD \rightarrow B, AB \rightarrow C, BD \rightarrow A, AD \rightarrow C, CD \rightarrow B$.

    b The minimal keys of S are AB, or BD, or AD, or CD.

Q2.3

Write answers here. The keys in iowa are date, store, vendor_no, itemno, invoice_line_no.

Q2.4

Write answers here.

Q2.5

Write answers here.

Q2.6

Write answers here. No, I can't. Because function dependencies are about relationship between attributes, hence they could not be used to constrain the value of one certain column.

Q2.7

Write answers here.

   a There is only one vendor_name value for itemno number '3326' in the iowa dataset.

   b Yes, it should be. Because the same product should have the same vendor. The relationship between item and vendor should be one to many.