

## TU München, Fakultät für Informatik Lehrstuhl III: Datenbanksysteme Prof. Alfons Kemper, Ph.D.



## Exercise for $Database\ System\ Concepts\ for\ Non-Computer\ Scientist\ im\ WiSe\ 19/20$

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## Sheet 04

## Exercise 1

Consider the entity relationship model of a train connection system (below). Note: connects models a the direct connection between two stations. For example, the train starting in Munich and ending in Hamburg passes through several stations. Each of these route-sections (e.g., Munich  $\rightarrow$  Nürnberg or Nürnberg  $\rightarrow$  Würzburg) has an entry in the connects relation.

- a) Add functionalities to the ER diagram.
- b) Transform the ER diagram into a relational schema.

