

MySQL Indexes

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- the index of a table functions like the index of a book
 - data is taken from a column of the table and is stored in a certain order in a distinct place, called an index
- your datasets will typically contain 100,000+ or even 1,000,000+ records
 - the *larger* a database is, the *slower* the process of finding the record or records you need

MySQL Indexes

- we can use an index that will increase the speed of searches related to a table

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SQL

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CREATE INDEX index_name  
ON table_name (column_1, column_2, ...);
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the parentheses serve us to indicate the column names on which our search will be based

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CREATE INDEX index_name  
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```

these must be fields from your data table you
will search frequently

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 - applied to *multiple* columns, not just a single one

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CREATE INDEX index_name  
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```

- carefully pick the columns that would optimize your search!

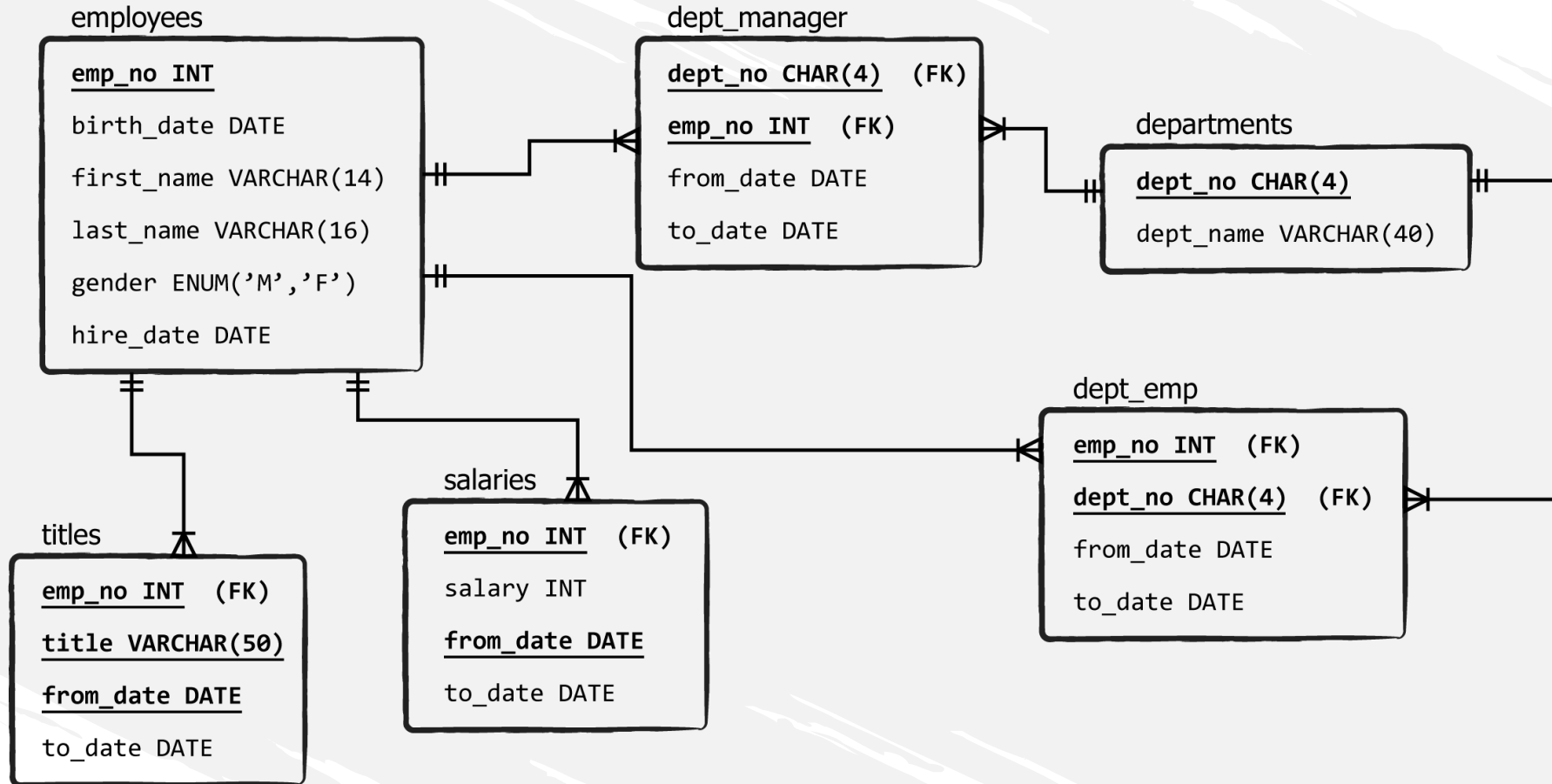
MySQL Indexes

- *primary* and *unique keys* are MySQL indexes

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 - they represent columns on which a person would typically base their search

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MySQL Indexes

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| <u>small datasets</u> | the costs of having an index might be higher than the benefits |
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- SQL specialists are always aiming for a good balance between the improvement of speed search and the *resources used for its execution*

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|-----------------------|--|
| <u>small datasets</u> | the costs of having an index might be higher than the benefits |
| <u>large datasets</u> | a well-optimized index can make a <i>positive</i> impact on the search process |