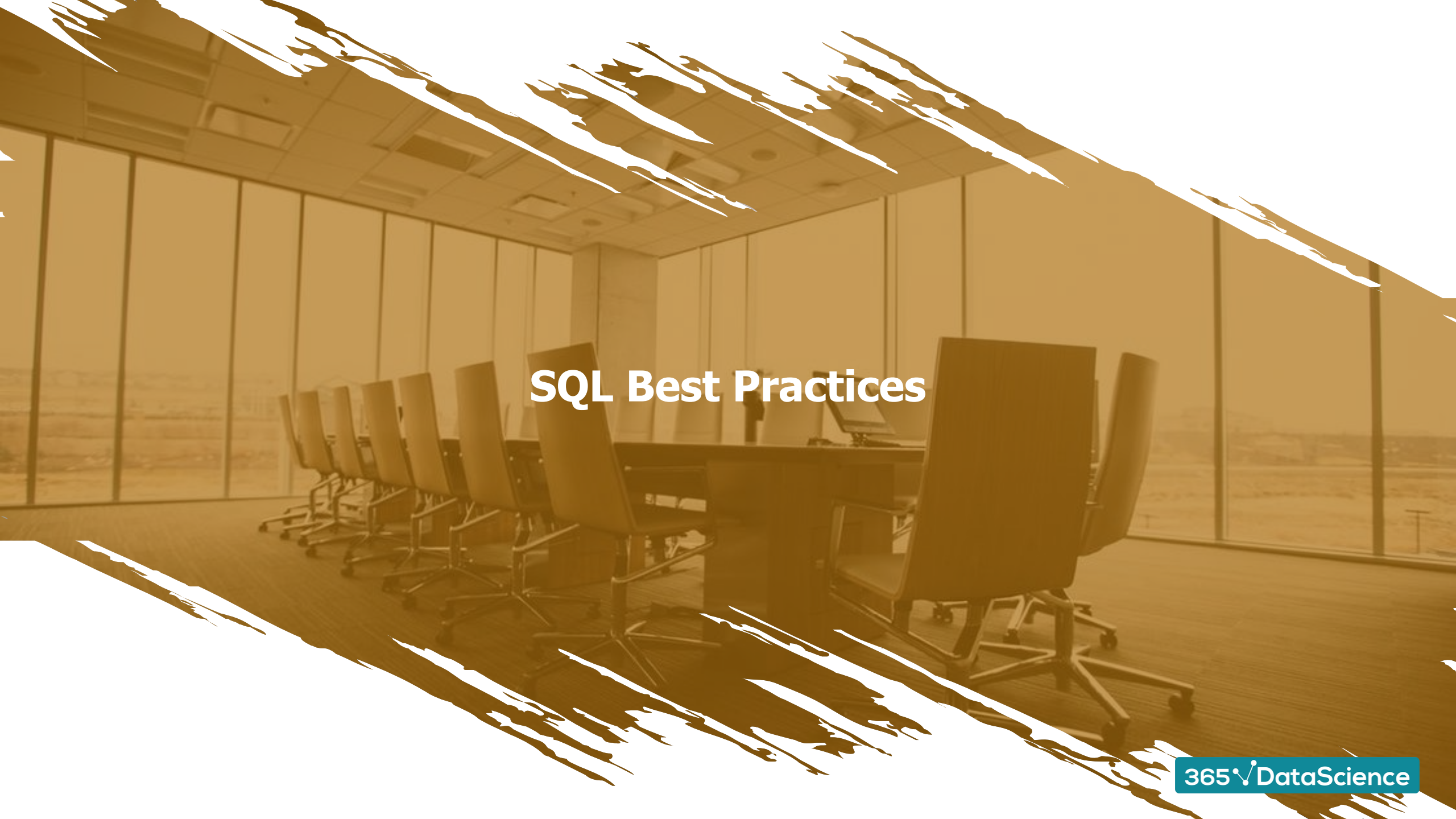
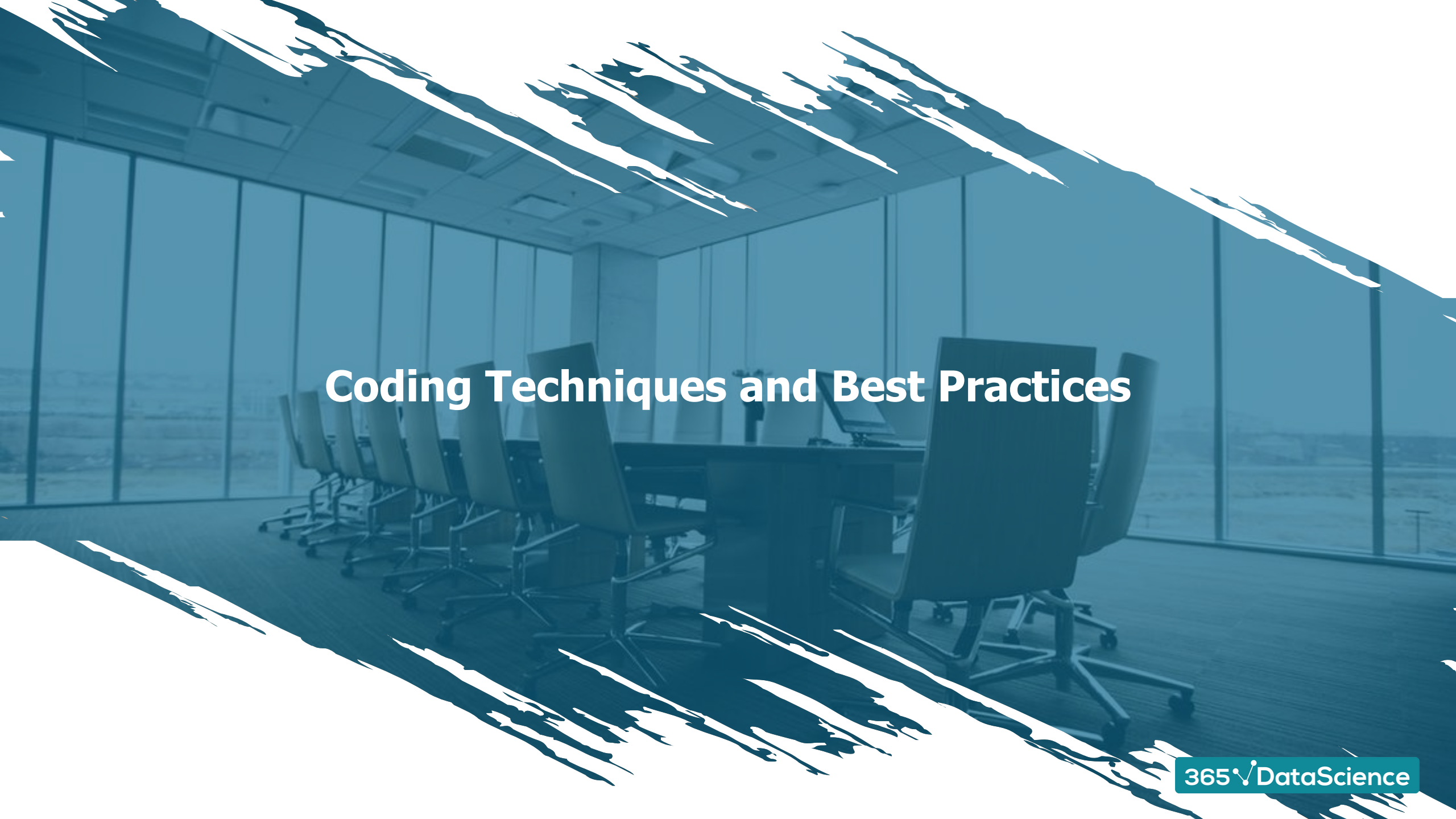

SQL Best Practices
365 DataScience



Coding Techniques and Best Practices

365 DataScience

Coding Techniques and Best Practices

complying with coding style is *crucial*

Coding Techniques and Best Practices

complying with coding style is *crucial*

- you will always work in a team

Coding Techniques and Best Practices

clean code

code that is *focused* and *understandable*, which means it must be readable, logical, and changeable

Coding Techniques and Best Practices

- good code is not the one computers understand; it is the one *humans* can understand

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code, in general, can be organized in several ways

Coding Techniques and Best Practices

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good practice implies you will choose the version that will be easiest to read and understand

Coding Techniques and Best Practices

- **good code** is not the one computers understand; it is the one *humans* can understand

code, in general, can be organized in several ways

↓

good practice implies you will choose the version that will be easiest to read and understand

assumption:

at your workplace, you will always type code *cleanly* –

as simple as possible, perfectly organized, maintaining a steady logical flow

Coding Techniques and Best Practices

- *when assigning names to variables or SQL objects,*

Coding Techniques and Best Practices

- *when assigning names to variables or SQL objects,*

  always chose shorter, meaningful names, conveying *specific information*

Coding Techniques and Best Practices

when assigning names to variables or SQL objects,

always chose shorter, meaningful names, conveying *specific information*

↓

pronounceable, where one word per concept has been picked

Coding Techniques and Best Practices

when assigning names to variables or SQL objects,

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pronounceable, where one word per concept has been picked

Sales			
purchase_number	date_of_purchase	customer_id	item_code
1	9/3/2016	1	A_1
2	12/2/2016	2	C_1
3	4/15/2017	3	D_1
4	5/24/2017	1	B_2
5	5/25/2017	4	B_2
6	6/6/2017	2	B_1
7	6/10/2017	4	A_2
8	6/10/2017	3	C_1
9	7/20/2017	1	A_1
10	8/11/2017	2	B_1

Coding Techniques and Best Practices

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customer_purchase_unique_number

Sales			
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Coding Techniques and Best Practices

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pronounceable, where one word per concept has been picked

- names will constitute more than 80% of your code

Coding Techniques and Best Practices


```sql
CREATE TABLE sales
(
    purchase_number INT,
    date_of_purchase DATE,
    customer_id VARCHAR(255),
    item_code VARCHAR(255),
PRIMARY KEY (purcase_number)
);
```

Coding Techniques and Best Practices

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Coding Techniques and Best Practices

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Coding Techniques and Best Practices

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Coding Techniques and Best Practices

```
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PurchaseNumber

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Coding Techniques and Best Practices

purchase_number

PurchaseNumber

purchas number

ERROR

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Coding Techniques and Best Practices

- readability

Coding Techniques and Best Practices

- readability

  - horizontal and vertical organization of code

Coding Techniques and Best Practices

readability

- horizontal and vertical organization of code
- colour

Coding Techniques and Best Practices

1. use ad-hoc software that re-organizes code and colours different words consistently

Coding Techniques and Best Practices

1

use ad-hoc software that re-organizes code and colours different words consistently

- time is a factor

Coding Techniques and Best Practices

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- time is a factor

- unification of coding style is a top-priority

Coding Techniques and Best Practices

1

use ad-hoc software that re-organizes code and colours different words consistently

- time is a factor

- unification of coding style is a top-priority

it is unprofessional to merge code written in the same language but in a different style

Coding Techniques and Best Practices

1. use ad-hoc software that re-organizes code and colours different words consistently

Coding Techniques and Best Practices

1. use ad-hoc software that re-organizes code and colours different words consistently

2. use the relevant analogical tool provided in Workbench

Coding Techniques and Best Practices

1. use ad-hoc software that re-organizes code and colours different words consistently
2. use the relevant analogical tool provided in Workbench
3. intervene manually and adjust your code as you like

Coding Techniques and Best Practices

comments

lines of text that Workbench will not run as code; they convey a message to someone who reads our code

Coding Techniques and Best Practices

comments

lines of text that Workbench will not run as code; they convey a message to someone who reads our code

```
/* … */      (for large comments)
```

Coding Techniques and Best Practices

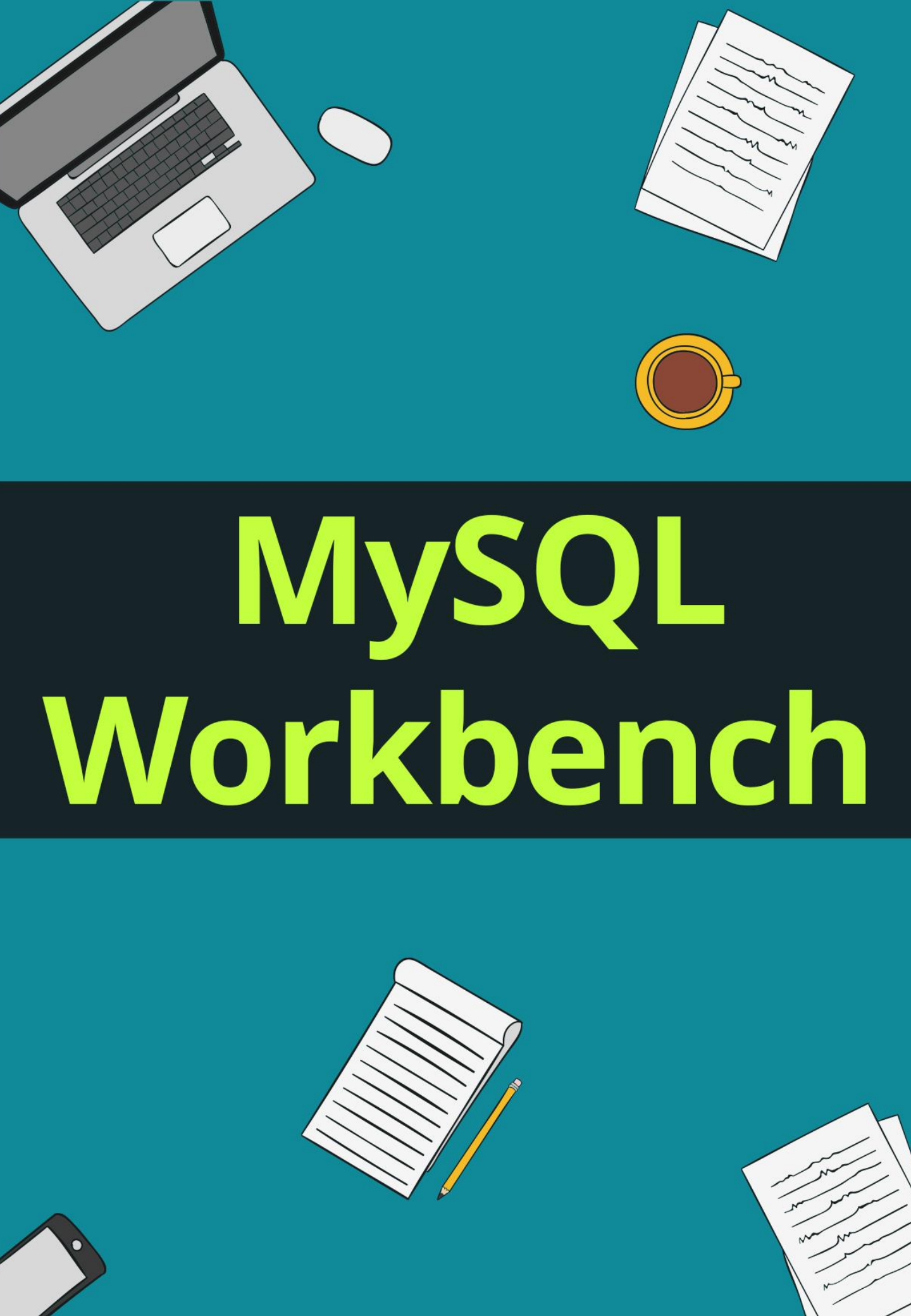
comments

lines of text that Workbench will not run as code; they convey a message to someone who reads our code

```
/* … */      (for large comments)
# or --      (for one-line comments)
```

Next:

Loading the ‘employees’ database


MySQL
Workbench

SQL

MySQL Workbench Keyboard Shortcuts

365 DataScience

File menu	
New Model	Ctrl + N
Open Model	Ctrl + O
Open SQL Script	Ctrl + Shift + O
Close Tab	Ctrl + F4
Save Model	Ctrl + S
Save Script	Ctrl + S
Save Model As	Ctrl + Shift + S
Save Script As	Ctrl + Shift + S
Forward Engineer SQL CREATE Script	Ctrl + Shift + G
Forward Engineer SQL ALTER Script	Ctrl + Alt + Y
Synchronize With SQL CREATE Script	Ctrl + Shift + Y

SQL

MySQL Workbench Keyboard Shortcuts

365 DataScience

File menu	
Print	Ctrl + P
Exit	Ctrl + Q
Edit menu	
Undo	Ctrl + Z
Redo	Ctrl + Y
Cut	Ctrl + X
Copy	Ctrl + C
Paste	Ctrl + V
Delete	Ctrl + Del
Edit Selected	Ctrl + E
Edit Selected in New Window	Ctrl + Shift + E

SQL

MySQL Workbench Keyboard Shortcuts

365 DataScience


Edit menu

Select All	Ctrl + A
Find	Ctrl + F
Find Advanced	Ctrl + Alt + F
Find Next	F3
Find Previous	Shift + F3
Search and Replace	Ctrl + Shift + F
Comment/Uncomment lines of SQL	Ctrl + /
Auto-Complete SQL	Ctrl + Space

View menu

Output Window	Ctrl + F2
Set Marker n	Ctrl + Shift + N

SQL

MySQL Workbench Keyboard Shortcuts

365 DataScience

View menu


Go to Marker n	Ctrl + N

Arrange menu

Bring to Front	Ctrl + Shift + F
Send to Back	Ctrl + Shift + B

SQL

MySQL Workbench Keyboard Shortcuts

365 DataScience

Model menu	
Add Diagram	Ctrl + T
Validate All	Ctrl + Alt + V
Validate All (MySQL)	Ctrl + Alt + B
Query menu	
Execute statement	Ctrl + Enter
Execute statements	Ctrl + Shift + Enter
New Tab	Ctrl + T
Database menu	
Query Database	Ctrl + U
Reverse Engineer	Ctrl + R

SQL

MySQL Workbench Keyboard Shortcuts

365 DataScience

Database menu	
Forward Engineer	Ctrl + G
Synchronize Model	Ctrl + Y
Scripting menu	
Scripting Shell	Ctrl + F3
Run Workbench Script File	Ctrl + Shift + R
Help menu	
Help Index	F1
EER diagram mode	
Selection tool	Esc
Hand tool	H
Delete tool	D

SQL

MySQL Workbench Keyboard Shortcuts

365 DataScience

EER diagram mode	
Layer tool	L
Note tool	N
Image tool	I
Table tool	T
View tool	V
Routine Group tool	G
Non-Identifying Relationship 1:1	1
Non-Identifying Relationship 1:n	2
Identifying Relationship 1:1	3
Identifying Relationship 1:n	4
Identifying Relationship n:m	5

SQL

MySQL Workbench Keyboard Shortcuts

365 DataScience

EER diagram mode

Relationship Using Existing Columns	 	6

SQL

MySQL Workbench Keyboard Shortcuts

365 DataScience

File menu

New Model	Cmd + N
Open Model	Cmd + O
Open SQL Script	Ctrl + Shift + O
Close Tab	Cmd + W
Save Model	Cmd + S
Save Script	Cmd + S
Save Model As	Cmd + Shift + S
Save Script As	Cmd + Shift + S
Forward Engineer SQL CREATE Script	Cmd + Shift + G
Forward Engineer SQL ALTER Script	Cmd + Alt + Y
Synchronize With SQL CREATE Script	Cmd + Shift + Y

SQL

MySQL Workbench Keyboard Shortcuts

365 DataScience

File menu

Print	Cmd + P
Exit	Cmd + Q

Edit menu

Undo	Cmd + Z
Redo	Cmd + Y
Cut	Cmd + X
Copy	Cmd + C
Paste	Cmd + V
Delete	Cmd + Del
Edit Selected	Cmd + E
Edit Selected in New Window	Cmd + Shift + E

SQL

MySQL Workbench Keyboard Shortcuts

365 DataScience

Edit menu

Select All	Cmd + A
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Find Advanced	Cmd + Alt + F
Find Next	F3
Find Previous	Shift + F3
Search and Replace	Cmd + Shift + F
Comment/Uncomment lines of SQL	Cmd + /
Auto-Complete SQL	Cmd + Space

View menu keyboard shortcuts

Output Window	Cmd + ⌘ + P
Set Marker n	Cmd + Shift + N

SQL

MySQL Workbench Keyboard Shortcuts

365 DataScience

View menu

Go to Marker n	Cmd + N

Arrange menu

Bring to Front	Cmd + Shift + F
Send to Back	Cmd + Shift + B

SQL

MySQL Workbench Keyboard Shortcuts

365 DataScience

Model menu

Add Diagram	Cmd + T
Validate All	Cmd + Alt + V
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Model Options	Cmd + Alt + ,

Query menu

Execute statement	Cmd + Enter
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SQL

MySQL Workbench Keyboard Shortcuts

365 DataScience

EER diagram mode

Relationship Using Existing Columns	6