Relational Database Design

You're a small business that needs to track purchases.

How?

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How?

Spreadsheets!

Songs (ala Google Sheets/Excel/etc)

	SONG		
Name	Artist	Album	
Here Comes the Sun	The Beatles	Abbey Road	
Come Together	The Beatles	Abbey Road	
Let It Be	The Beatles	Let It Be	
Yesterday	The Beatles	Help!	
Hey Jude	The Beatles	"1"	

Songs & Artists (ala Google Sheets/Excel/etc)

	SONG				
ID	Name	Artistld		Album	
•	Here Comes the Sun		1	Abbey Road	
2	Come Together		1	Abbey Road	
;	Let It Be		1	Let It Be	
4	Yesterday		1	Help!	
į	Hey Jude		1	"1"	
(Hey JTC		2	125 Street	

Α	RTIST
ID	Name
1	The Beatles
2	The Beetles

ID

Name

Artist ID

Album

ARTIST

ID

PRIMARY **ID** KEY:

Name

Artist ID

Album

ARTIST

PRIMARY **ID** KEY:

PRIMARY ID

Name

FOREIGN Artist ID KEY:

Album

ARTIST

PRIMARY ID

PRIMARY ID

Name

FOREIGN Artist ID KEY:

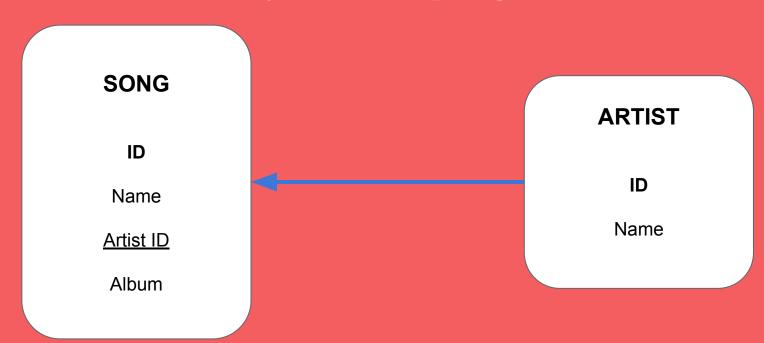
Album

One Artist: Many Songs

One - to - Many Relationship

ARTIST

PRIMARY ID



Task Table (ala Google Sheets/Excel/etc)

	TASK	
ID	Description	
1	Learn Python	
2	Learn HTML	
3	Learn Django	

Task

PRIMARY ID

Description

Task Table & Comment table: One-to-Many

	Task
ID	Description
1	Learn Python
2	Learn HTML
3	Learn Django

	Comment	
ID	Body	Task_ID
1	This was difficult	3
2	Love the structure!	2
3	HTML tags are confusing tho	2
4	Like the snake?	1

Task

PRIMARY ID

Description

One Task: Many Comments

One - to - Many Relationship

Comment

PRIMARY **ID** KEY:

Body

FOREIGN Task_ID

Task, Comment, & Tag tables

	Task
ID	Description
1	Learn Python
2	Learn HTML
3	Learn Django

	Comment	
ID	Body	Task_ID
1	This was difficult	3
2	Love the structure!	2
3	HTML tags are confusing tho	2
4	Like the snake?	1

	Tag
ID	Name
1	coding
2	python
3	web

Tables with intermediary

	Task
ID	Description
1	Learn Python
2	Learn HTML
3	Learn Django

	Comment		
ID	Body	Task_ID	
1	This was difficult	3	
2	Love the structure!	2	
3	HTML tags are confusing tho	2	
4	Like the snake?	1	

	TaskTag	
ID	Task_ID	Tag_ID
1	1	1
2	2	1
3	3	1
4	1	2
5	3	2
6	2	3
7	3	3

	Tag
ID	Name
1	coding
2	python
3	web

Task

PRIMARY **ID** KEY:

Description

Comment

PRIMARY **ID** KEY:

Body

FOREIGN Task_ID

TaskTag

PRIMARY KEY: ID

FOREIGN Task_ID

FOREIGN Tag_ID KEY:

Tag

PRIMARY **ID** KEY:

- ^ Many to Many Relationship: Intermediary Table (Task to Tag via TaskTag)
- < One to Many Relationship (Task to Comment)