02 - Data Modelling: 1 to Many

Part 1

1. Customers with orders

customers

id	name	email	address
1	Jane Doe	janedoe@gmail.com	123 Spring st.
2	John Doe	johndoe@gmail.com	321 Nelson st.
3	Dora D.	dorad@gmail.com	111 Spadina ct.
4	Sora M.	soram@yahoo.com	5 Garden Blvd.
5	Jamie S.	jamies@hotmail.com	333 5th Ave.

INTEGER primary key · VARCHAR text · VARCHAR text · VARCHAR text

1 → many

orders

id	customer_id	product	date
1	3	shoes	10-13-2017
2	1	watch	08-24-2017
3	3	pencils	08-01-2017
4	5	sticky notes	03-11-2018
5	2	kitchen knife	08-01-2017

INTEGER primary key · INTEGER foreign key · VARCHAR text · DATE timestamp

2. People with addresses

countries

id	name	year_founded	national_animal
1	Canada	1867	beaver
2	Brazil	1822	jaguar
3	China	1949	panda

INTEGER primary key · VARCHAR text · INTEGER · VARCHAR text

1 → many

provinces

id	country_id	name	year_founded
1	3	Shanghai	1291
2	1	Ontario	1867
3	1	British Columbia	1858

INTEGER primary key · INTEGER foreign key · VARCHAR text · INTEGER

1 → many

cities

id	province_id	name	year_founded
1	1	Shanghai	1291
2	3	Vancouver	1867
3	2	Toronto	1858

INTEGER primary key · INTEGER foreign key · VARCHAR text · INTEGER

1 → many

residences

id	city_id	adddress	year_built
1	3	111 Spadina ct.	1998
2	1	5 Garden Blvd.	2003
3	1	333 5th Ave.	2010

INTEGER primary key · INTEGER foreign key · VARCHAR text · INTEGER

1 → many

people

id	res_id	name	age
1	3	Jane Doe	30
2	2	John Doe	24
3	3	Dora D.	16

INTEGER primary key · INTEGER foreign key · VARCHAR text · INTEGER

2. A Library System

authors

id	name
1	Jane Doe
2	John Doe
3	Dora D.

INTEGER primary key · VARCHAR text

1 → many

books

id	author_id	title	isbn
1	5	Harry Potter	978-3-16-148410-0
2	4	Life of Pie	978-3-16-148410-2
3	7	Lord of flies	978-3-16-148410-3

INTEGER primary key · INTEGER foreign key · VARCHAR text · VARCHAR text

1 → many

loans

book_id	patron_id	due_date	renewed?
1	3	11-01-2017	true
3	2	03-11-2018	false
2	1	08-21-2017	false

INTEGER foreign key · INTEGER foreign key · DATE · BOOLEAN

many → 1

patrons

id	name	card_number	email
1	Jane Doe	80001	janedoe@gmail.com
2	John Doe	80002	johndoe@gmail.com
3	Dora D.	80003	dorad@gmail.com

INTEGER primary key · VARCHAR text · VARCHAR text · VARCHAR text

1 → many

holds

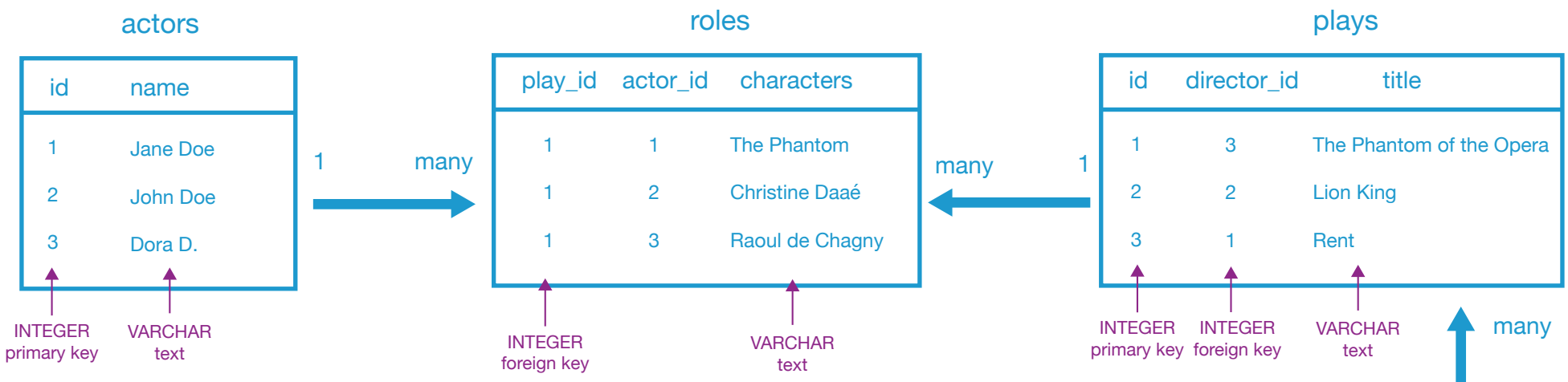
book_id	patron_id	date_placed
3	4	10-13-2017
2	1	08-24-2017
2	2	08-01-2017

INTEGER foreign key · INTEGER foreign key · DATE timestamp

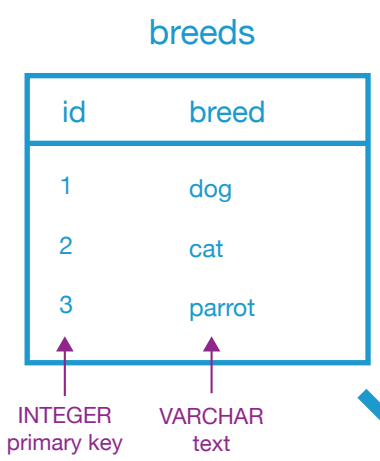
02 - Data Modelling: 1 to Many

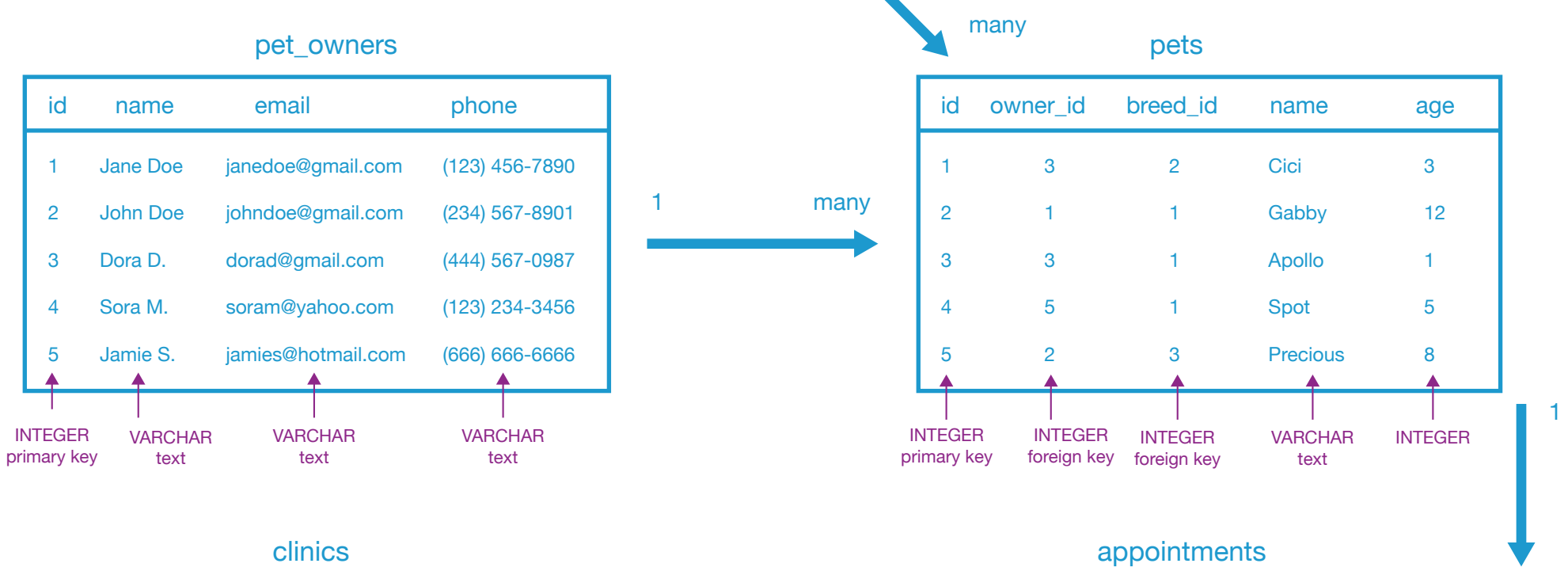
Part 2

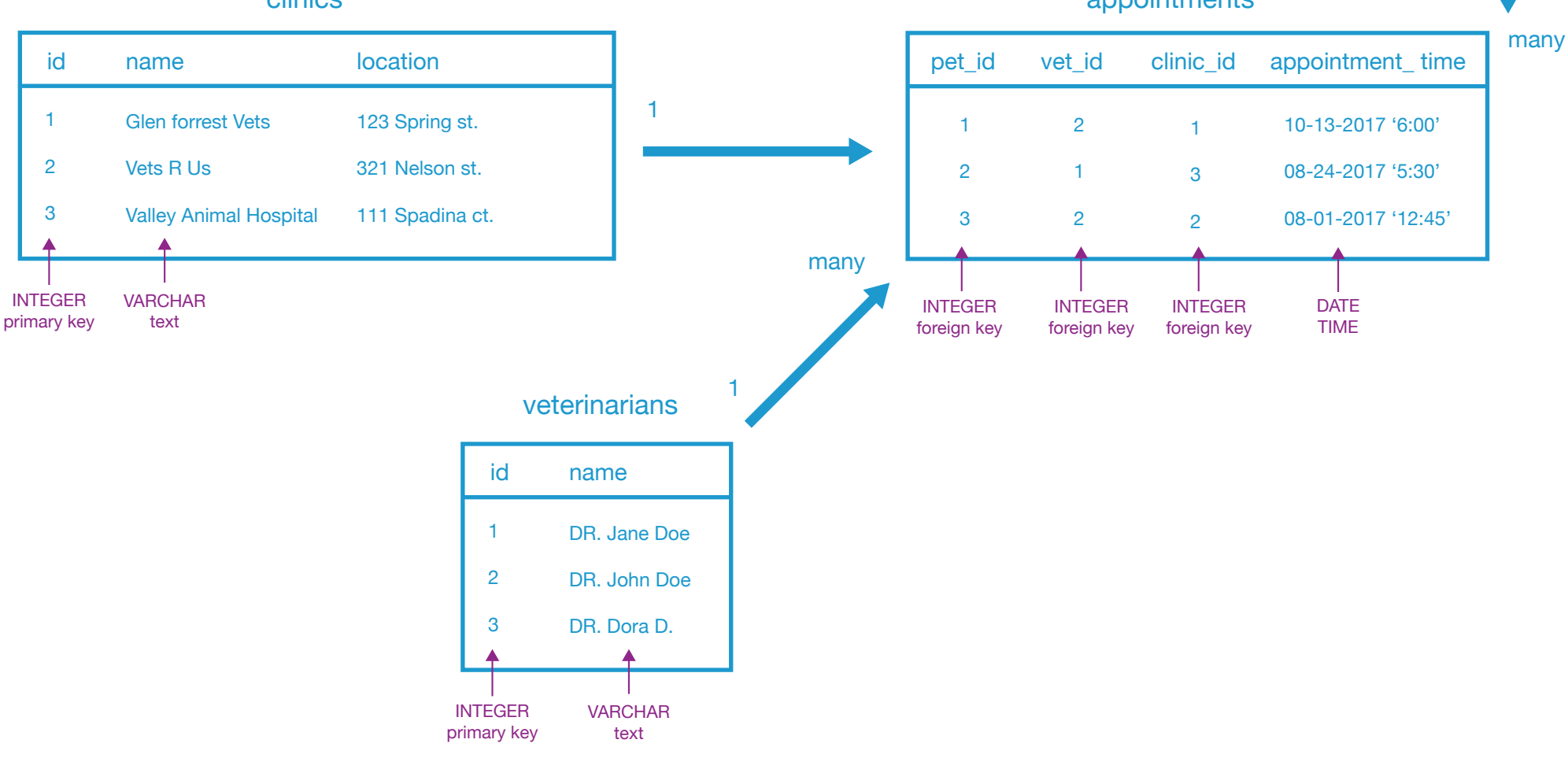
1. Stage play



2. Veterinarian Appointment System



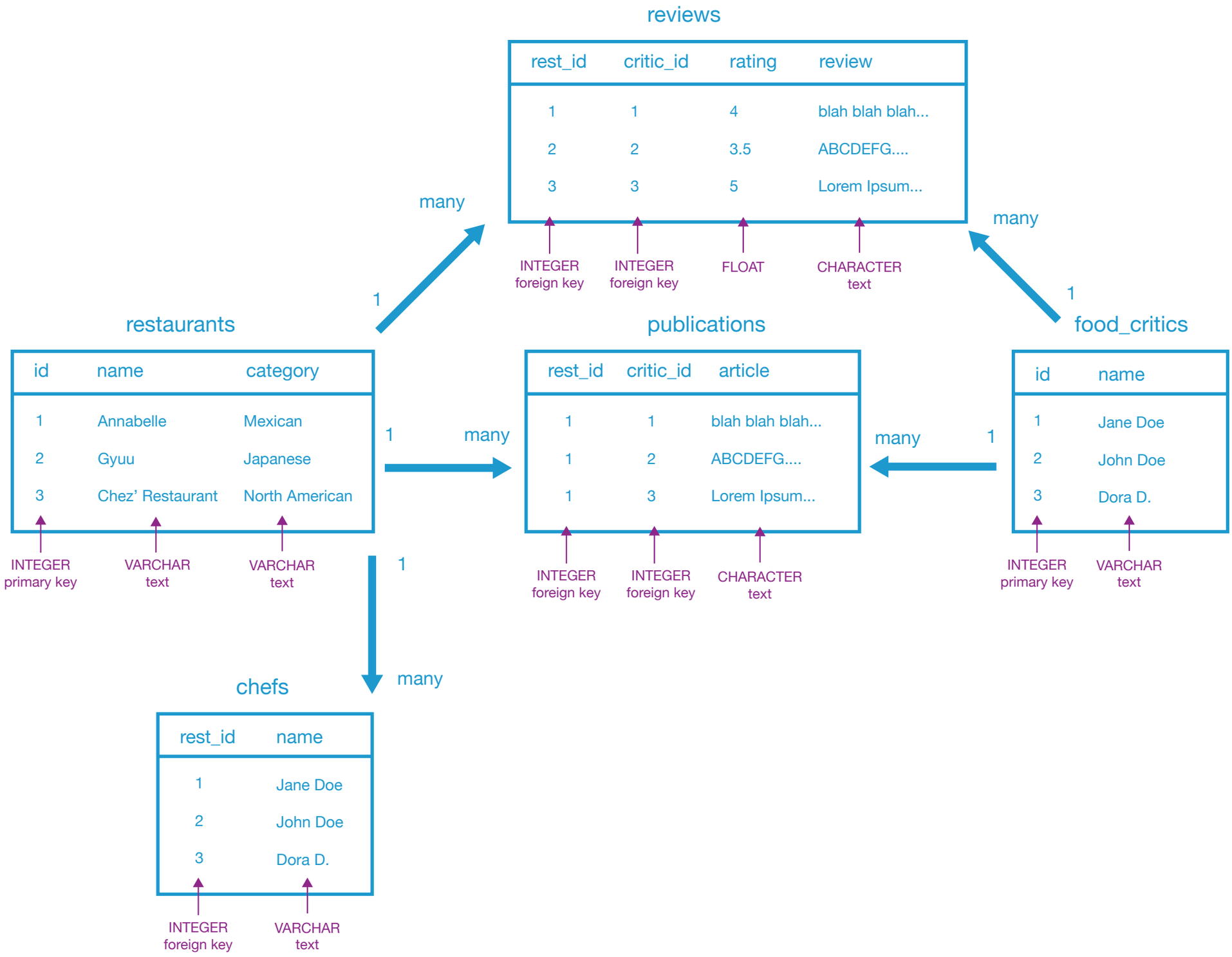




02 - Data Modelling: 1 to Many

Part 2

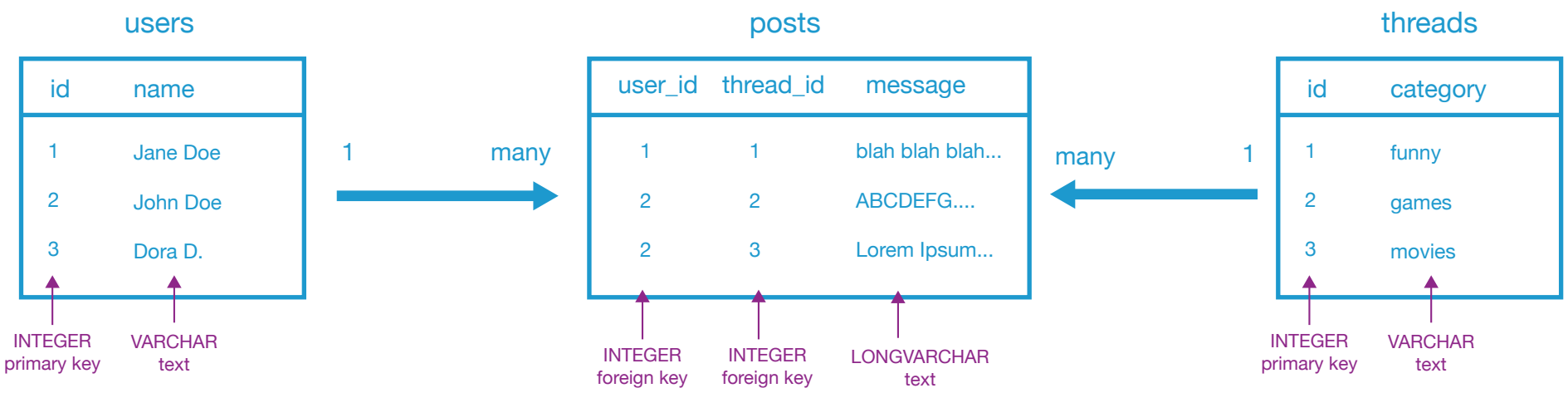
3. BlogTO Restaurants



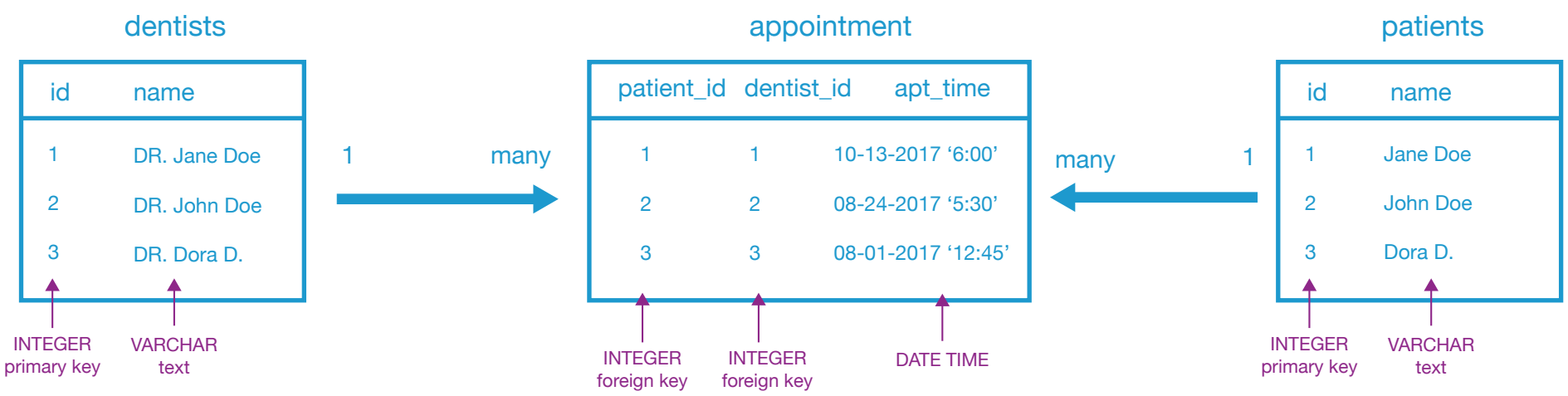
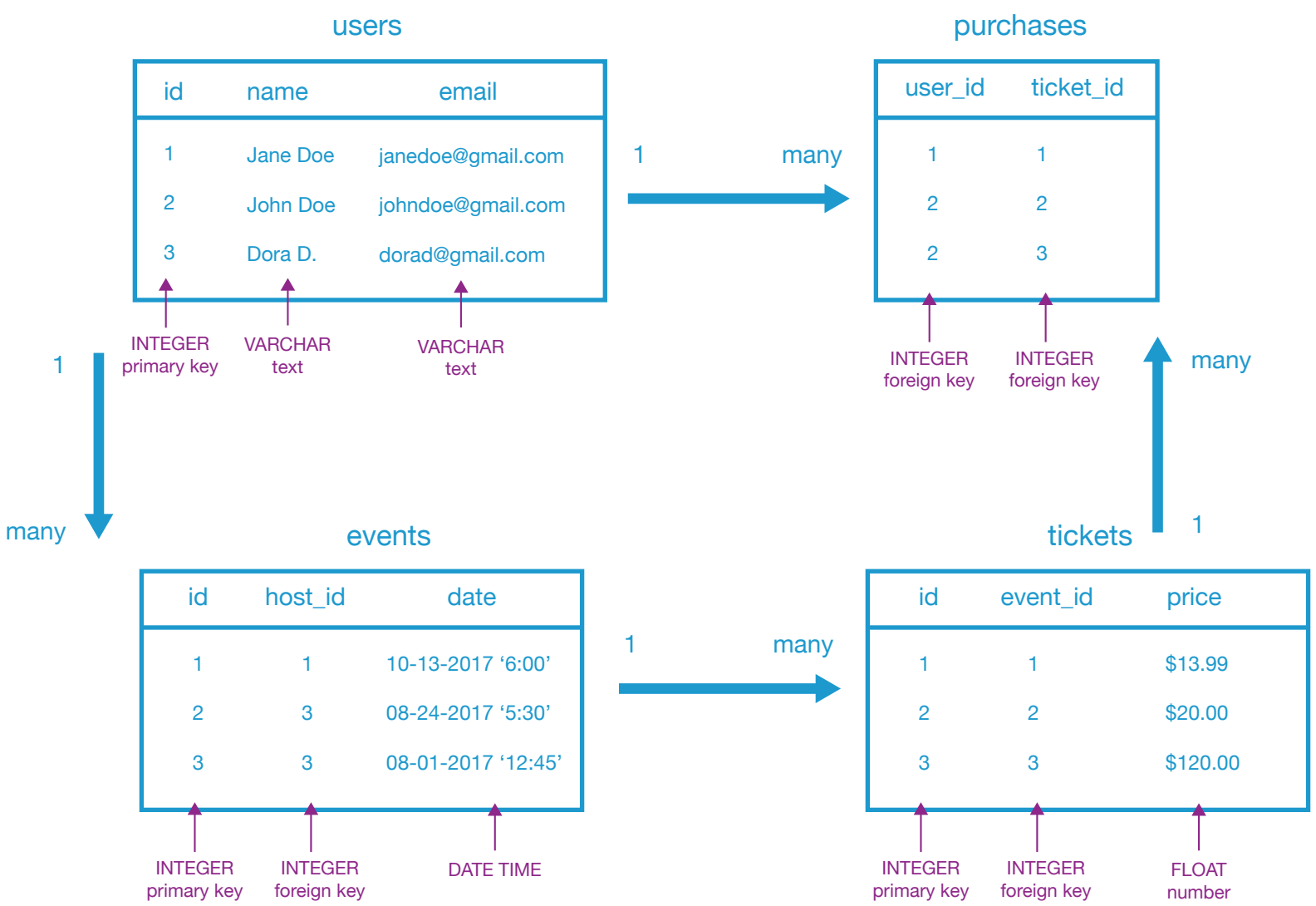
02 - Data Modelling: 1 to Many

Part 3

1. Forum with thread posts



1. Dentist Appointment App



1. Eventdark App