

3 - Functional dependencies:

Books:

<u>Book_id</u>	Name	Condition	Weight	Pages
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Fc = {Book_id -> Name, condition, Weight, Pages}
{Book_id}+ = {Book_id, Name, Condition, Weight, Pages}.

Authors:

<u>First_name</u>	<u>Last_name</u>	<u>Book_name</u>
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Fc = {First_name, last_name, book_name -> first_name, last_name, book_name}.
{Authors}+ = Authors.

Translator:

<u>First_name</u>	<u>Last_name</u>	<u>Book_name</u>
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Fc = {Book_name, First_name, Last_name -> First_name, Last_name, book_name}
{translator}+ = translator

Publisher

<u>Brand Name</u>	<u>Year</u>	<u>Book_name</u>
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Fc = {Book_name, Year, Brand_Name -> book_name, year, name}
{publisher}+ = publisher

Order

<u>Date</u>	<u>Informed_Date</u>	<u>Customer_Id</u>	<u>Book_Id</u>
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Fc = {Book_id -> Customer_id, Informed_Date, Date}
{Book_id}+ = {Book_id, Customer_id, Informed_Date, Date}

Customer

<u>Customer_id</u>	First name	Last name	Landline phone	cellular
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Fc = {Customer_id -> Cellular; Cellular -> customer_id, first_name, last_name, landline_phone}.
{Customer_id}+ = {Customer_id, first_name, last_name, landline_phone, cellular} = candidate and primary key.

Inventory

<u>Book_id</u>	Date_stored
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Fc = {Book_id -> date_sorted}
{Book_id}+ = {Book_id, date_sorted}

warehouse

<u>book_id</u>	date_in	date_out
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Fc = { book_id -> date_in, date_out }
{ book_id }+ = { book_id, date_in, date_out }

Store Purchase

<u>book_id</u>	Price_paid	purchase_date
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Fc = {Book_id -> price_paid, purchase_date}
{Book_id}+ = {Book_id, price_paid, purchase_date}.

Book Sale

<u>book_id</u>	deal_id	delivery_id	customer_id	book_price
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Fc = {Book_id -> deal_id, delivery_id, customer_id, book_price}
{book_id}+ = {book_id, deal_id, delivery_id, customer_id, book_price}

Deals

<u>deal_id</u>	total_pay	method_pay	date
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Fc = {Deal_id -> total_pay, method_pay, date}.
{deal_id}+ = {deal_id, total_pay, method_pay, date}

Delivery

<u>delivery_id</u>	shipping_method	status	date
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Fc = {Delivery_id → shpping_method, status, date}.
{delivery_id}+ = {delivery_id, shpping_method, status, date}

Delivery address

<u>delivery_id</u>	city	street	number
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$F_c = \{\text{delivery_id} \rightarrow \text{city, street, number}\}$
 $\{\text{delivery_id}\}^+ = \{\text{delivery_id, city, street, number}\}$

Payments

<u>date</u>	rent	water	electric	cellular	Landline_phone	variants
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$F_c = \{\text{Date} \rightarrow \text{rent, water, electric, cellular, landline_phone, variants}\}$
 $\{\text{date}\}^+ = \{\text{date, rent, water, electric, cellular, landline_phone, variants}\}$

Sales

emp_id	<u>deal_id</u>
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$\text{Deal_id} \rightarrow \text{emp_id}$
 $\{\text{deal_id}\}^+ = \{\text{deal_id, emp_id}\}$

Employees

<u>emp_id</u>	city	street	First_name	last_name	cellular
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$F_c = \{\text{emp_id} \rightarrow \text{cellular; cellular} \rightarrow \text{emp_id, city, street, first_name, last_name}\}$
 $\{\text{emp_id}\}^+ = \{\text{emp_id, city, street, first_name, last_name, cellular}\}$

Salaries

<u>emp_id</u>	<u>date</u>	total_hours
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$F_c = \{\text{Emp_id, date} \rightarrow \text{total_hours}\}$
 $\{\text{emp_id, date}\}^+ = \{\text{emp_id, date, total_hours}\}$

shipping_rate

<u>shipping_method</u>	pay_rate	Company
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$F_c = \{\text{shipping_method} \rightarrow \text{pay_rate, company}\}$
 $\{\text{shipping_method}\}^+ = \{\text{shipping_method, pay_rate, company}\}$