

The 3 first tables are the original tables which were provided to me. I reworked all this information to be 3NF-standard compliant, which resulted in the 3 last tables.
 There is a color code in the Property Values table to show where each column went in the 3NF-compliant database.

RAW DATA - Property values

Concatenated columns to
 create the Property table PK.
 Sales (Vente) Table
 Property (Bien) Table

CODE	MEANING	TYPE	LENGTH	NATURE	MANAGEMENT RULE	CALCULATION RULE
Code service CH	NA					
Reference document	NA					
1 Articles CGI	NA					
2 Articles CGI	NA					
3 Articles CGI	NA					
4 Articles CGI	NA					
5 Articles CGI	NA					
No disposition	Number of mutation per deed of sale	Integer	2	Elementary	Not null	
mutation date	Date of signature of the deed of sale	Date	10	Elementary	Not null ; Format AAAA/MM/JJ	
Nature mutation	Nature of the mutation	Varchar	35	Elementary	Not null ; choose from : Sale, sale pending completion, sale of building land, auction, expropriation, exchange..	
Valeur fonciere	Net selling price	Float	NC	Elementary		
No voie	Street number	Integer	NC	Elementary		
B/T/Q	Repetition index	Varchar	1	Elementary		
Code type de voie	Number corresponding to a track type	Integer	2	Elementary		
Type de voie	Track type (street, avenue, path, etc.)	Varchar	4	Elementary		
Code voie	Rivoli code	Varchar	4	Elementary		
Voie	Name of the track	Varchar	50	Elementary		
Code ID commune	Municipality code (number)	Integer	4	Elementary		
Code postal	ZIP code	Integer	5	Elementary		
Commune	municipality name (capital letters)	Varchar		Elementary		
Code departement	Department code	Varchar	3	Elementary		
Code commune	Municipality digit code per department	integer	3	Elementary		
Préfixe de section	Prefix of cadastral section	Integer	3	Elementary		
Section	cadastral section	Varchar	2	Elementary		
No plan	Plan number	Integer		Elementary		
No Volume	NA			Elementary		
1er lot	First lot of the cadastral section	Varchar	NC	Elementary		
Surface Carrez du 1er lot	Surface of the first lot	Float	NC	Elementary		
2eme lot		Varchar	NC	Elementary		
Surface Carrez du 2eme lot		Float	NC	Elementary		
3eme lot		Varchar	NC	Elementary		
Surface Carrez du 3eme lot		Float	NC	Elementary		
4eme lot		Varchar	NC	Elementary		
Surface Carrez du 4eme lot		Float	NC	Elementary		
5eme lot		Varchar	NC	Elementary		
Surface Carrez du 5eme lot		Float	NC	Elementary		
Nombre de lots	Number of lots	Integer	3	Elementary		
Code type local	Digits corresponding to a premise type	integer	1	Elementary	Non nul ; choose from; 1, 2, 3, 4	
Type local						IF code_type_local == 1, "house" ; IF == 2, "appartement" ; IF == 3, "detached outbuilding" ; IF == 4, "industrial, commercial or similar premises"
	Premise type	Varchar		Calculated	Calculated according to "code type local"	
Identifiant local	NA					
Surface reelle bati	Surface of the building	Integer	NC	Elementary	Non nul	
Nombre pieces principales	Number of main rooms	Integer	3	Elementary	Non nul	
Nature culture	Type of land	Varchar		Elementary		
Nature culture speciale	Nature of the land	Varchar		Elementary		
Surface terrain	Land surface	Integer		Elementary		
Nom de l'acquéreur	Purchaser's name in capitals	Varchar		Elementary	Not null, capitals	

RAW DATA - Geographic reference frame

PK							
CODE	MEANING	TYPE	LENGTH	NATURE	MANAGEMENT RULE	CALCULATION RULE	
reggrp_nom	Regional grouping	varchar		Elementary	Not null		choose from "Province", "Ile-de-France", "DROM-COM"
reg_nom	Region name	varchar		Elementary	Not null		
reg_nom_old	Former region name (before 2016)	varchar		Elementary	Not null		
aca_nom	Name of the academy	varchar		Elementary	Not null		
dep_nom	Department name	varchar		Elementary	Not null		
com_code	Commune code	varchar		Elementary	Not null		
com_code1	Alternative commune code, Marseille and Lyon arrondissements aggregated.	varchar		Elementary	Not null		
com_code2	Alternative commune code, Marseille and Lyon and Paris arrondissements aggregated.	varchar		Elementary	Not null		
com_id	Commune identifier	varchar		Elementary	Not null		
com_nom_maj_court	Short name of the commune in upper case	varchar		Elementary	Non nul, capital letters, letters and spaces only		
com_nom_maj	Commune name in uppercase	varchar		Elementary	Non nul, capital letters		
com_nom	Name of the municipality	varchar		Elementary	Not null		
uu_code	Urban unit code (2020)	varchar	5	Elementary			
uu_id	Urban unit ID (2020)	varchar	6	Elementary	Not null		
uucr_id	Urban unit or rural commune ID (2020)	varchar	7	Elementary	Not null		
uucr_nom	Name of the urban unit or rural municipality (2020)	varchar		Elementary	Not null		
ze_id	Employment area id	varchar	6	Elementary	Not null		
dep_code	Department code	varchar	3	Elementary	Not null		
dep_id	Id of the department	varchar	4	Elementary	Not null		
dep_nom_num	Department name and code	varchar		Concatenate	Not null	= dep_nom (dep_code)	
dep_num_nom	Code and name of department	varchar		Concatenate	Not null	= dep_code - dep_nom	
aca_code	Academy code	integer	3	Elementary	Not null		
aca_id	Academy ID	varchar	3	Elementary	Not null		
reg_code	Region code	integer	2	Elementary	Not null		
reg_id	Region ID	varchar	3	Elementary	Not null		
reg_code_old	Former region code (before 2016)	integer	2	Elementary	Not null		
reg_id_old	Former region ID (before 2016)	varchar	3	Elementary	Not null		
fd_id	Detailed France	varchar	5	Elementary	Not null		choose from: FD111, FD112, FD121
fr_id	Grouped France	varchar	4	Elementary	Not null		choose from FR11, FR12
fe_id	Whole country	varchar	3	Elementary	=FE1		
uu_id_99	Former Id urban unit (1999)	varchar	7	Elementary	Not null		
au_code	Urban area code	varchar	5	Elementary	Not null		
au_id	Urban area ID	varchar	5	Elementary	Not null		
auc_id	Urban area or commune ID	varchar	6	Elementary	Not null		
auc_nom	Name of the urban area or municipality	varchar		Elementary	Not null		
uu_id_10	Former urban unit ID (2010)	varchar	7	Elementary	Not null		
geolocalisation	GPS coordinates	varchar		Elementary			

RAW DATA: Municipality statistics

PK							
CODE	MEANING	TYPE	LENGTH	NATURE	MANAGEMENT RULE	CALCULATION RULE	
CODREG	Region code	integer	2	Elementary	not null		
CODDEP	Code department	varchar	3	Elementary	not null		
CODARR	Arrondissement code	integer	2	Elementary			
CODCAN	Canton code	integer	2	Elementary			
CODCOM	Commune code	integer	3	Elementary	not null		
COM	Name of municipality	varchar		Elementary			
PMUN	Municipal population	integer	6	Elementary	not null		
PCAP	Population counted separately	integer	6	Elementary	not null		
PTOT	Total population	integer	6	Calculated	not null	=PMUN + PCAP	

Data dictionary		Meaning
CODE		Name of the line in the Initial file
MEANING		Meaning of column
TYPE		Varchar, Integer, Date, Float, etc.
LENGTH		Maximum data length (optional)
NATURE		Elementary, calculate or concatenate
MANAGEMENT RULE	Cell content constraint. Examples: Date format (dd/mm/yyyy, dd/mm/yy, etc), must not be zero, etc.	
CALCULATION RULE	example: Column A + Column B	

3NF-COMPLIANT : Commune (Property)

PK						
CODE	MEANING	TYPE	LENGTH	NATURE	MANAGEMENT RULE	CALCULATION RULE
id_insee	INSEE code	varchar		Concatenate	Not null	Concatenation of code_dep and code_com
code_region	Region code	integer	2	Elementary	Not null	
code_dep	Departement code	varchar	3	Elementary	Not null	
code_arron	Arrondissement code	integer	2	Elementary		
code_canton	Canton code	integer	2	Elementary		
code_com	Commune code	integer	3	Elementary	Not null	
com_code1	Alternative commune code, aggregated Marseille and Lyon arrondissements.	varchar		Elementary	Not null	
com_code2	Alternative commune code, aggregated Paris, Marseille and Lyon arrondissements.	varchar		Elementary	Not null	
reggrp_nom	Regional grouping	varchar		Elementary	Not null	Choose from "Province", "Ile-de-France", "DROM-COM"
reg_nom	Region name	varchar		Elementary	Not null	
reg_nom_old	Former region name (before 2016)	varchar		Elementary	Not null	
aca_nom	Academy name	varchar		Elementary	Not null	
dep_nom	Department name	varchar		Elementary	Not null	
com_nom	Name of the commune	varchar		Elementary	Not null	
com_nom_maj	Name of the municipality in upper case	varchar		Elementary	Not null, upper case	
com_nom_maj_cour		varchar			No null, upper case, letters and spaces only	
	Short name of the municipality in upper case			Elementary		
uu_code	Urban unit code (2020)	varchar	5	Elementary		
uu_id	Urban unit ID (2020)	varchar	6	Elementary	Not null	
uucr_id	Urban unit or rural commune ID (2020)	varchar	7	Elementary	Not null	
uucr_nom	Name of the urban unit or rural municipality (2020)	varchar		Elementary	Not null	
ze_id	Id of the employment area	varchar	6	Elementary	Not null	
dep_id	Id of department	varchar	4	Elementary	Not null	
dep_nom_num	Department name and code	varchar		Concatenate	Not null	= dep_nom (dep_code)
dep_num_nom	Department code and name	varchar		Concatenate	Not null	= dep_code - dep_nom
aca_code	Academy code	integer	3	Elementary	Not null	
aca_id	Academy id	varchar	3	Elementary	Not null	
reg_code	Region code	integer	2	Elementary	Not null	
reg_id	Region ID	varchar	3	Elementary	Not null	
reg_code_old	Old region code (before 2016)	integer	2	Elementary	Not null	
reg_id_old	Former region ID (before 2016)	varchar	3	Elementary	Not null	
com_id	Commune ID	varchar		Elementary	Not null	
fd_id	Detailed France	varchar	5	Elementary	Not null	Choose from FD111, FD112, FD121
fr_id	Grouped France	varchar	4	Elementary	Not null	Choose from FR11, FR12
fe_id	Whole country	varchar	3	Elementary	=FE1	
uu_id_99	Former Id urban unit (1999)	varchar	7	Elementary	Not null	
au_code	Urban area code	varchar	5	Elementary	Not null	
au_id	Urban area ID	varchar	5	Elementary	Not null	
auc_id	Urban area or commune ID	varchar	6	Elementary	Not null	
auc_nom	Name of the urban area or municipality	varchar		Elementary	Not null	
uu_id_10	Former urban unit ID (2010)	varchar	7	Elementary	Not null	
geolocalisation	GPS coordinates	varchar		Elementary		
pop_munic	Municipal population	integer	6	Elementary	Not null	
pop_a_part	Population counted separately	integer	6	Elementary	Not null	
pop_total	Total population	integer	6	Calculated	Not null	=PMUN + PCAP

3NF-COMPLIANT : Bien (Property)

PK						
CODE	MEANING	TYPE	LENGTH	NATURE	MANAGEMENT RULE	CALCULATION RULE
id_bien	unique identifier of the property.	varchar		Concatenate	Not null	Concatenation of the
						columns: "No voie", "B/T/Q", "Code type de voie", "Code voie", "Code postal", "1er lot" of the original Property Value table.
id_insee	insee code	varchar		Concatenate	Non nul, must be present in the id_insee column of the table "Municipality".	Concatenation of the departement code and municipality code of the original Property Value table.
no_voie	Street number	Integer	NC	Elementary		
btq	Repetition index	Varchar	1	Elementary		
type_voie	Track type (street, avenue, road, etc.)	Varchar	4	Elementary		
voie	Track name	Varchar	50	Elementary		
total_pieces	Number of main rooms	Integer	3	Elementary	Not null	
surface_carrez		Float	NC	Elementary		
surface_local	Measured floor area	Integer	NC	Elementary	Not null	
type_local	Type of premises	Varchar		Elementary	Corresponds to "code type local"	

3NF-COMPLIANT : Ventes (Sales)

PK						
CODE	MEANING	TYPE	LENGTH	NATURE	MANAGEMENT RULE	CALCULATION RULE
id_vente	Unique identifier for the sale	integer		Calculated	not null	Auto-increment of 1 Concatenation of columns: "No voie", "B/T/Q", "Code type de voie", "Code voie", "Code postal", "1er lot" from the raw data table for property value.
id_bien	Unique identifier of the property. FK for the table "bien"	varchar		Concatenated	Not null, must be present in the id_bien column of the table "bien".	
Date mutation	Date of signature of the deed of sale	Date	10	Elementary	Not null ; Format AAAA/MM/JJ	
Valeur fonciere	Net selling price	Float	NC	Elementary		