Tutorial

“ Identifying and counting parking spaces for cars ”

In case you have any questions or doubt about
your work or this tutorial, write to : loic.letiran@apila.fr.

- INTRODUCTION -

Your job is to count the number of parking spaces for cars in some portions of streets in Paris, France.

The city of Paris has a very strict policy about parking spaces: parking spaces are clearly delimited on the ground. In the following section, we will show you how to identify them. Every space that is not clearly identified a parking space for cars is NOT a parking space and should not be counted.

- DUTY -

Your duty is to report the number of parking spaces for CARS ONLY !

In this tutorial, you will :

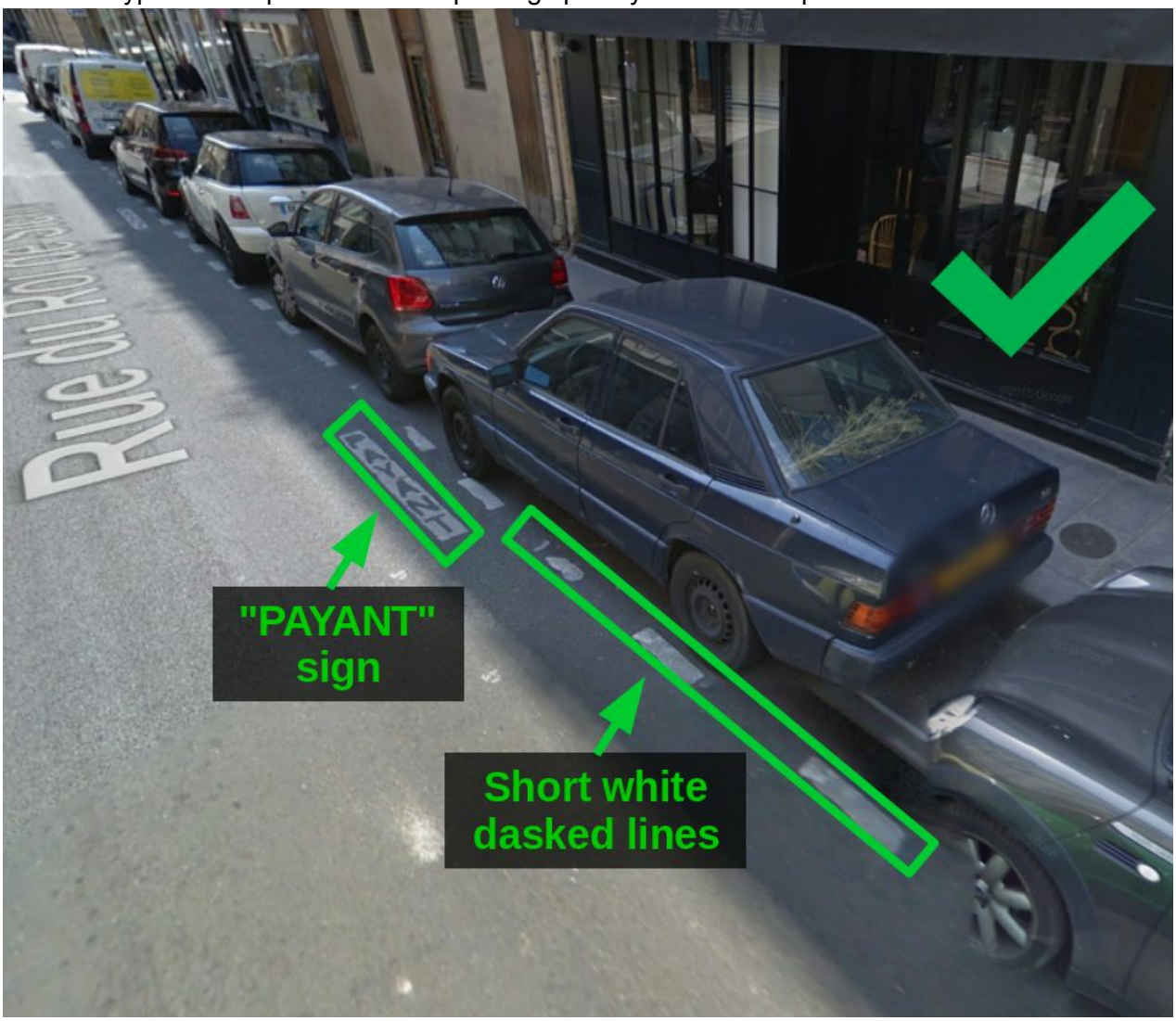
1/ learn to identify the parking spaces that we want you to count.
2/ you will learn how to count them

Identifying parking spaces for cars

Your first task is to understand **what is** and **what is not** a parking space for cars. Here are some examples to help you recognize the right parking spaces you will have to report.

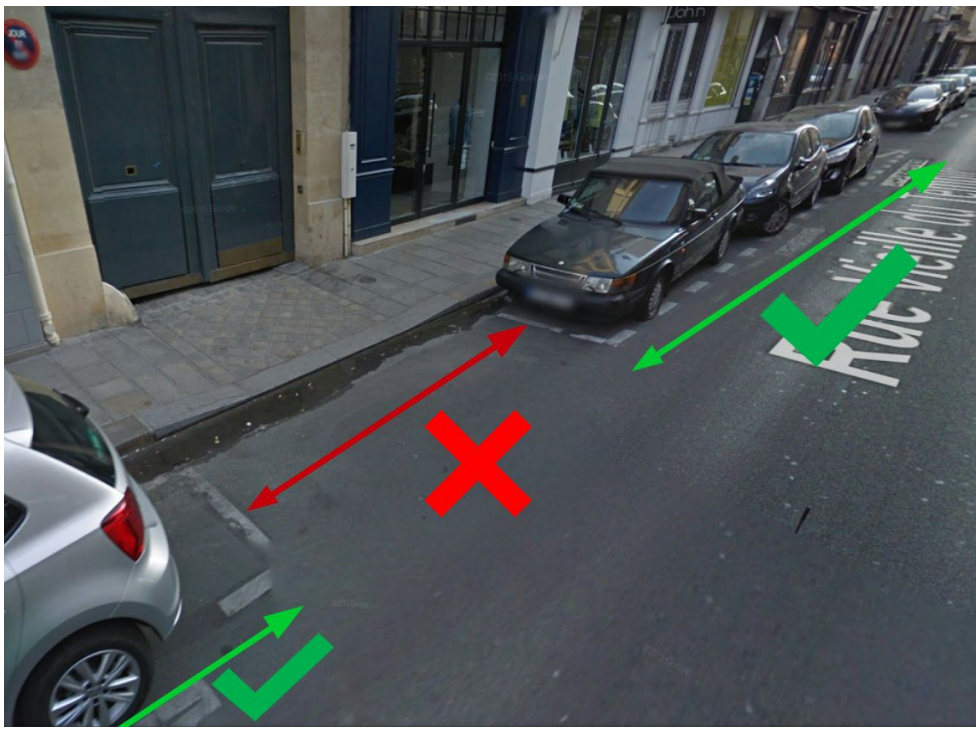
1 / Correct parking spaces for cars

Here is a typical example of a correct parking space you have to report:

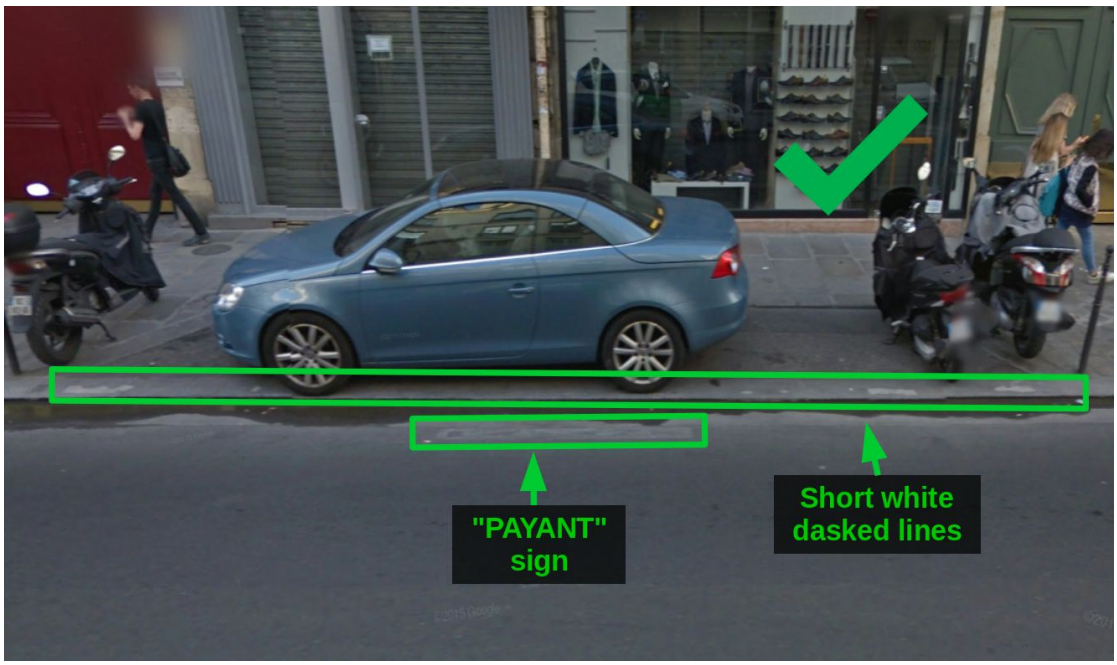


Note the **SHORT DASHED WHITE LINE** that clearly delimits the side of the street on which cars are allowed to park. Note also the mention **“PAYANT” (Not free)** in white, or in dark over a white rectangle.

These parking spaces are delimited. On the following image, you can see the end of a parking space and the beginning of another one. The space between these delimitations is not a parking space and should not be counted.

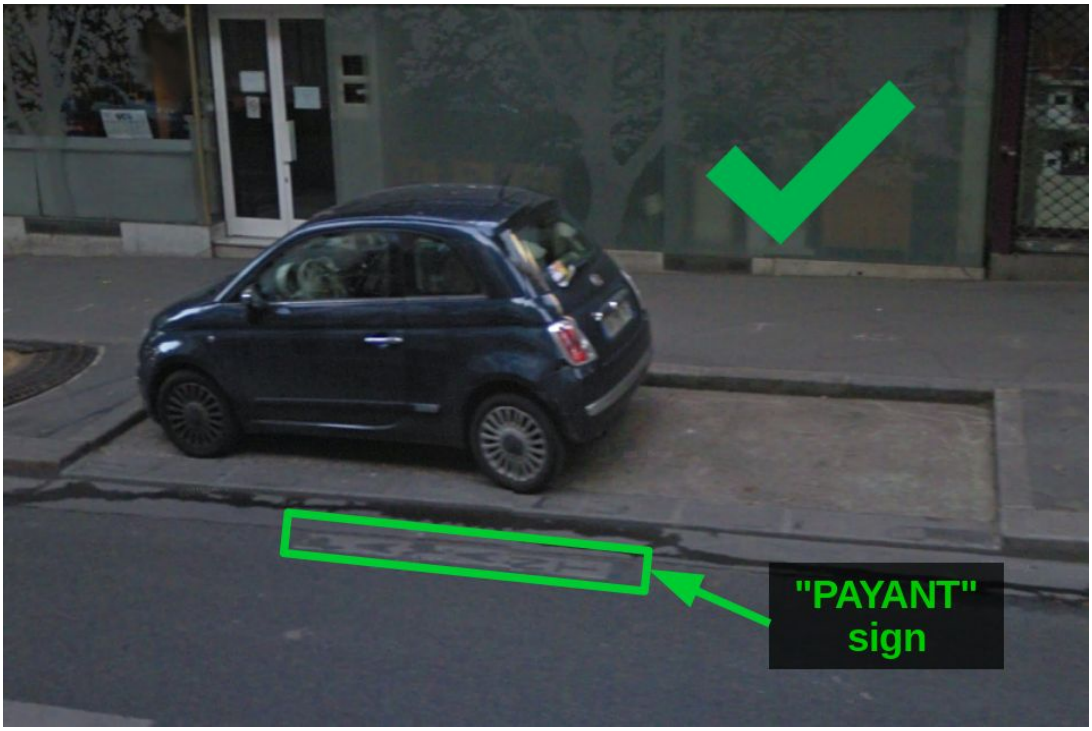


Another example of a **correct** parking space:



Note the presence of the two markings : the **SHORT DASHED WHITE LINE** and the **“PAYANT”** sign, although they are partially erased.

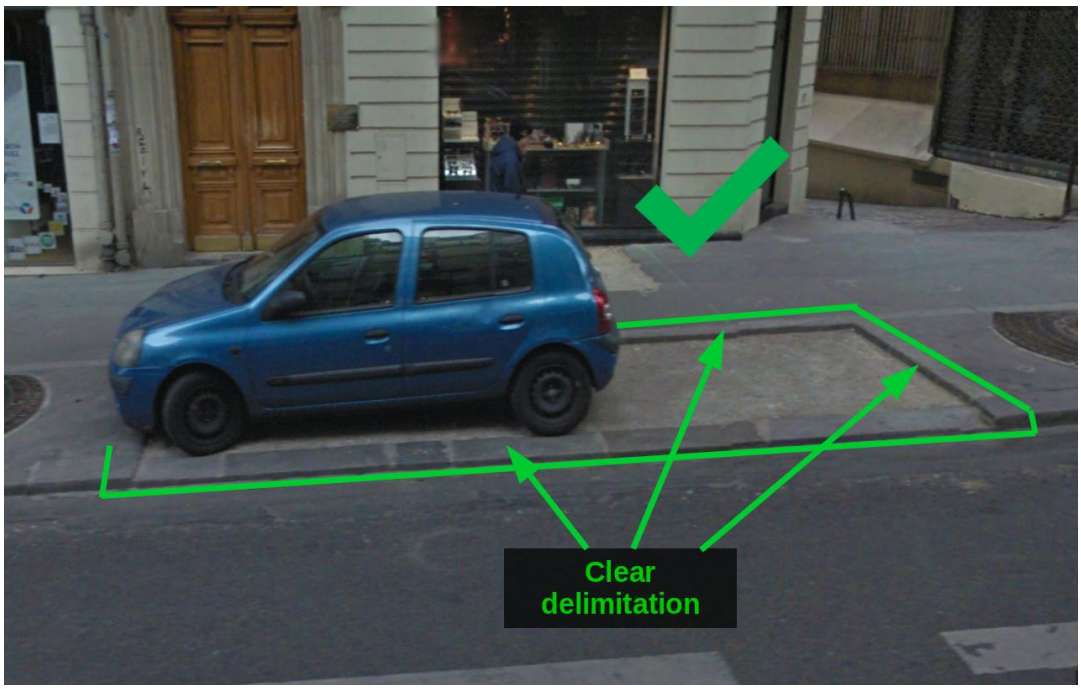
Here is another example of parking space for cars that should be counted:



This parking space is slightly different from the previous one: on this parking space, there are no white dashed line, however:

- the “**PAYANT**” sign, in dark on a white rectangle, is still present.
- The parking space is CLEARLY DELIMITED on the ground.

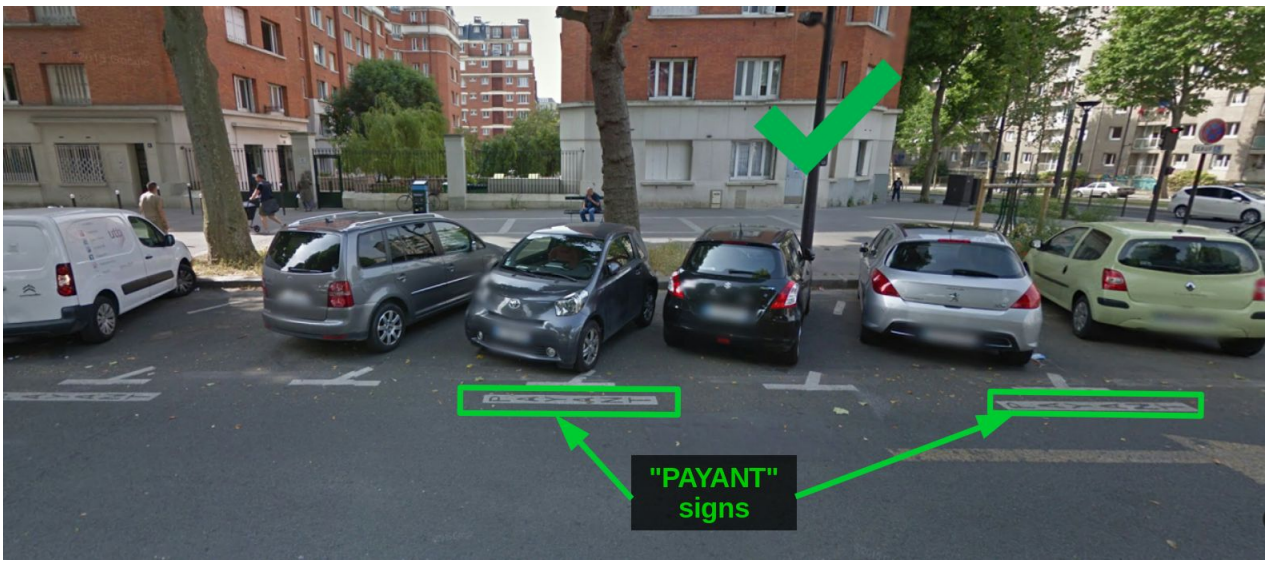
It is also possible that the “**PAYANT**” sign is not present, but if the place is clearly delimited, it still must be counted as a parking space for car. here is an example:



Parking spaces for cars are usually parallel to the street. It is however possible to find parking spaces that are perpendicular, as shown in the following picture:

In this case, there is no dashed lines (but still there is a **PAYANT** sign). Between the two trees in this picture, there are 4 parking spaces for cars that should be counted.

It is also possible to have parking spaces that are aslant, as shown in the following picture:



Here again, these spaces should be counted as parking spaces for cars.

2 / Incorrect parking spaces:

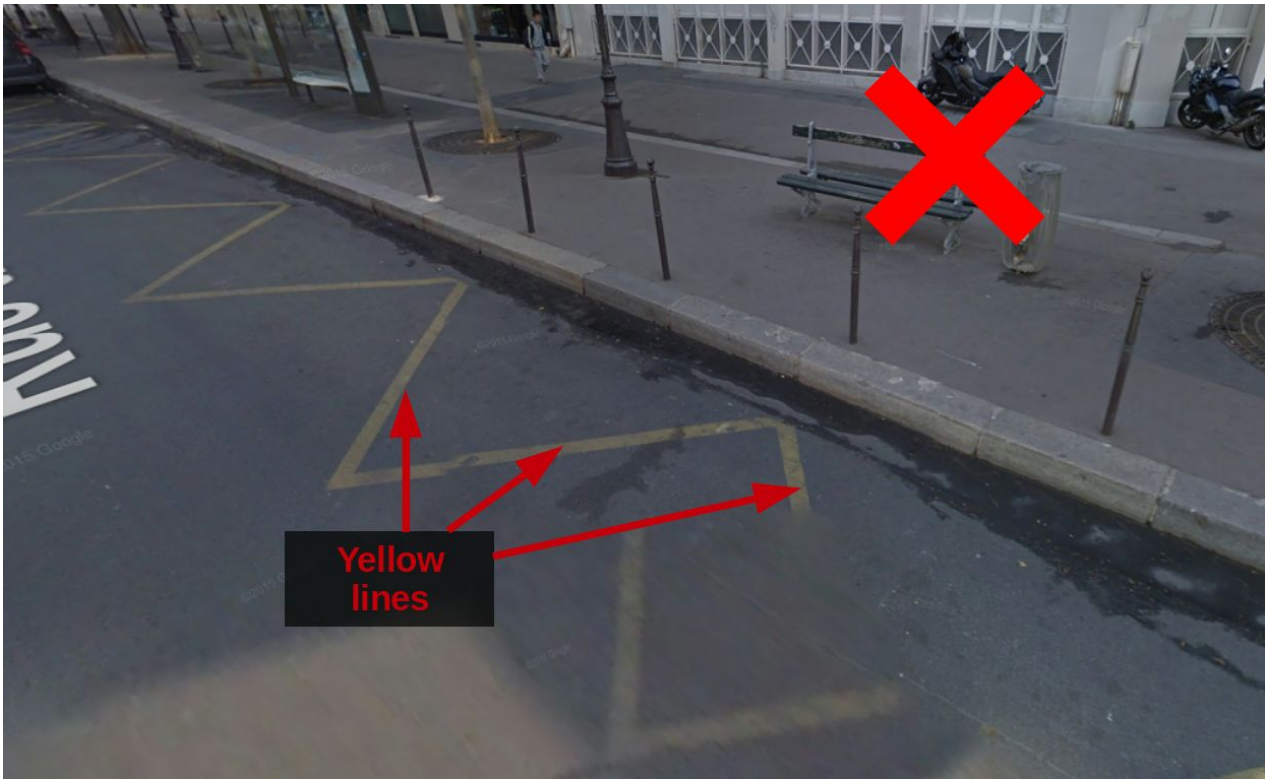
Everything that is not clearly delimited as a parking space for cars, as shown before, is NOT a parking space and should not be counted.

Here are a few examples of spaces that should not be counted:

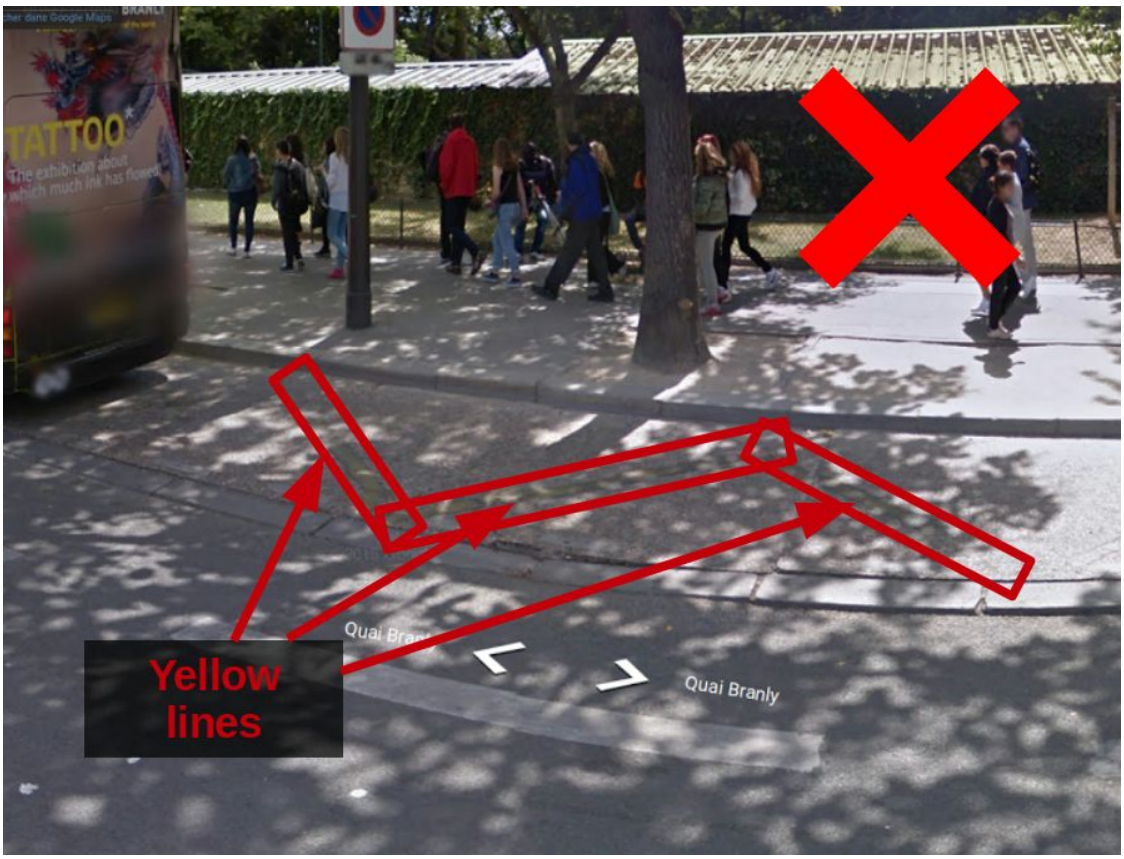
Do not count spaces with yellow lines

Yellow lines NEVER delimit a parking space. Do not count them:

On the following image are again some yellow lines: yellow lines NEVER delimit a parking space. Do not count them:

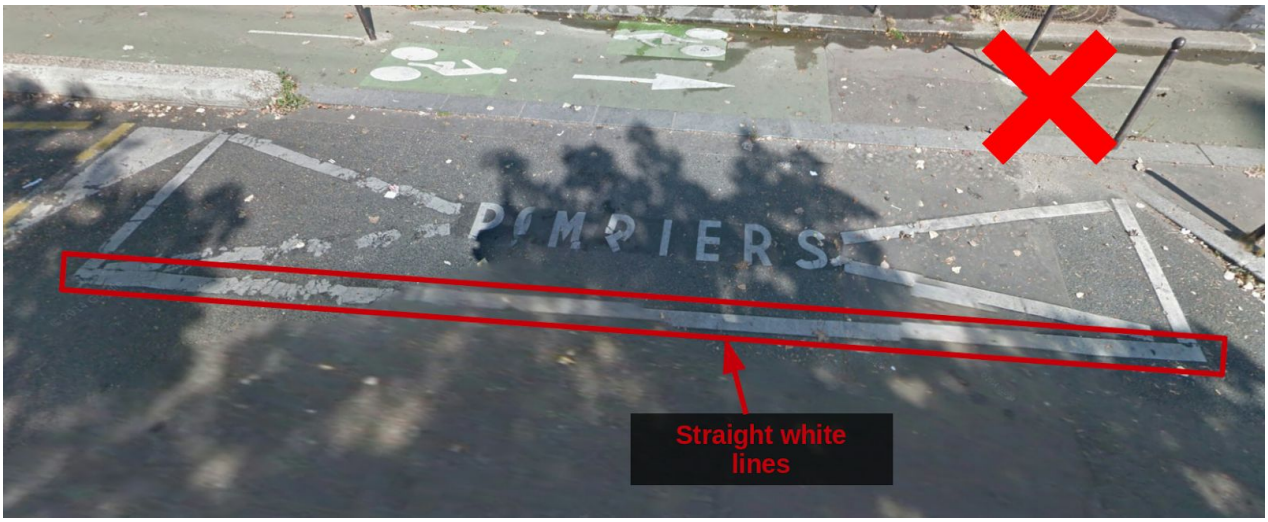


Sometimes these yellow lines can be a bit erased, so look carefully! An example of partially erased yellow lines in the following picture:



Do not count spaces with straight white lines

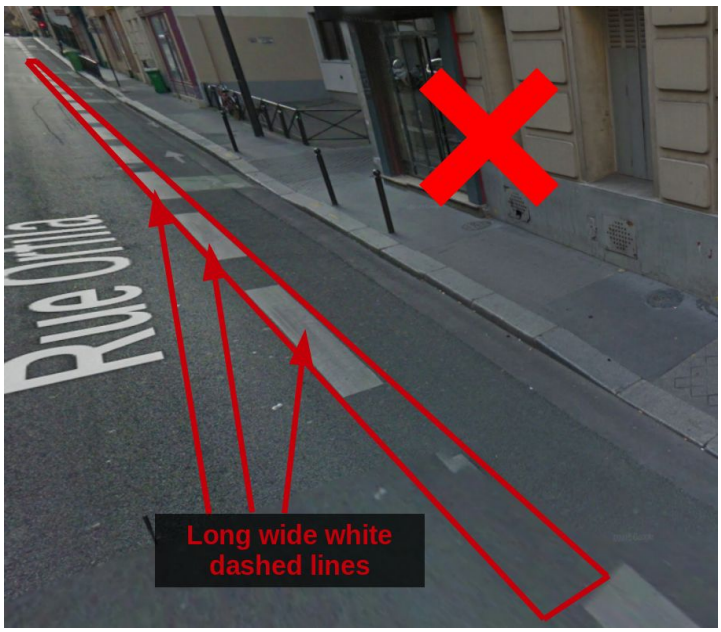
When there are long straight white lines, it is also forbidden to park. Therefore you should NOT count these parking spaces. The following picture represents such an example:



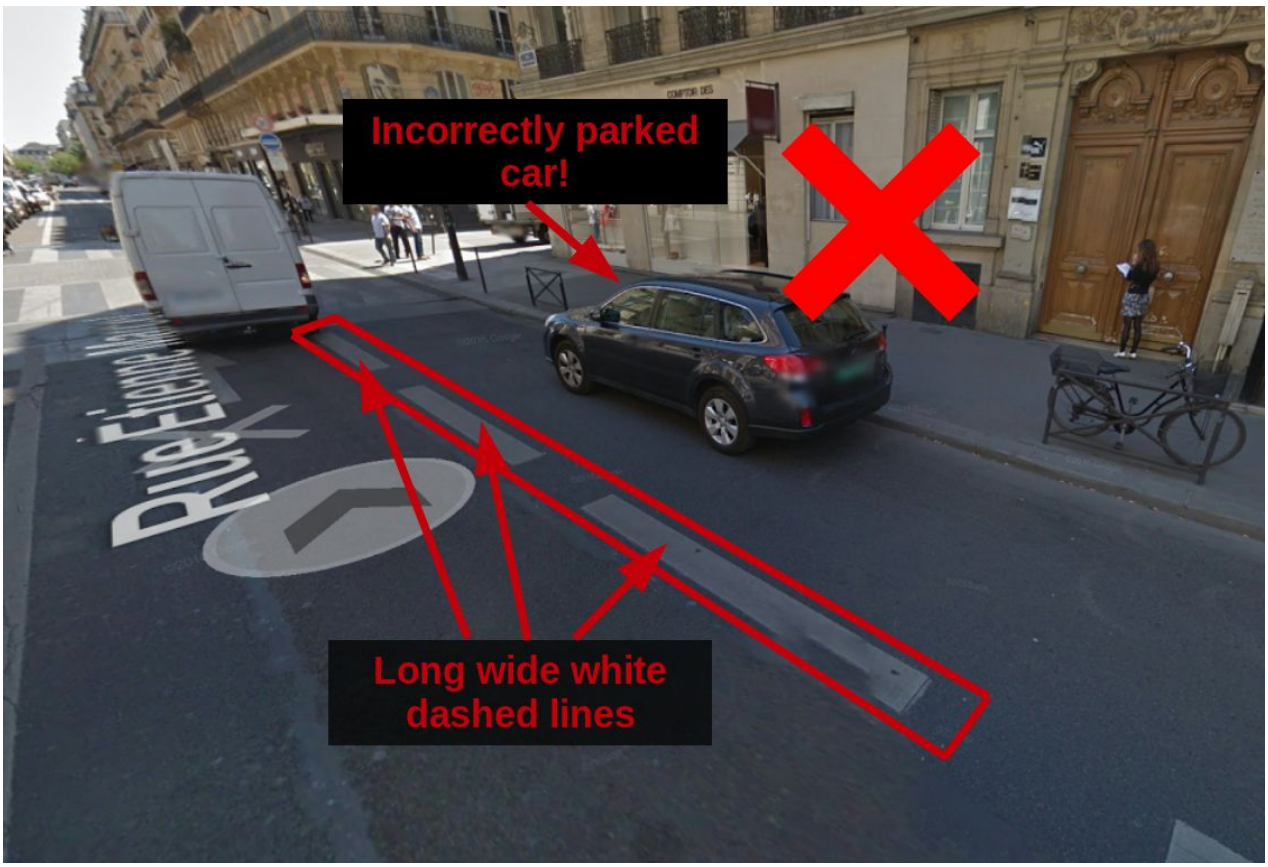
Do not count spaces with long/wide dashed white lines

We have seen that short dashed white lines  correspond to parking spaces you have to count. However, there are other types of white lines that DO NOT correspond to parking spaces and you should NOT count them: these dashed white lines are longer and wider than the short dashed white lines used for the parking spaces you have to count.

Here is an example of white dashed line that should NOT be counted as a parking space for cars:



Note that these white dashed lines are longer and wider that the dashed lines used for parking spaces you have seen in the “Correct parking spaces” section.
The following picture shows another example of NOT a parking space. Note that the black car is incorrectly parked here:



A car parked does not mean it is a parking space! In the previous picture, there is no parking space. Therefore, there is nothing to count here.

Do not count spaces with special markings

Except for the marking “**PAYANT**” that you will have to count, all other markings correspond to spaces you should NOT count.

You may see many different notations on the ground:

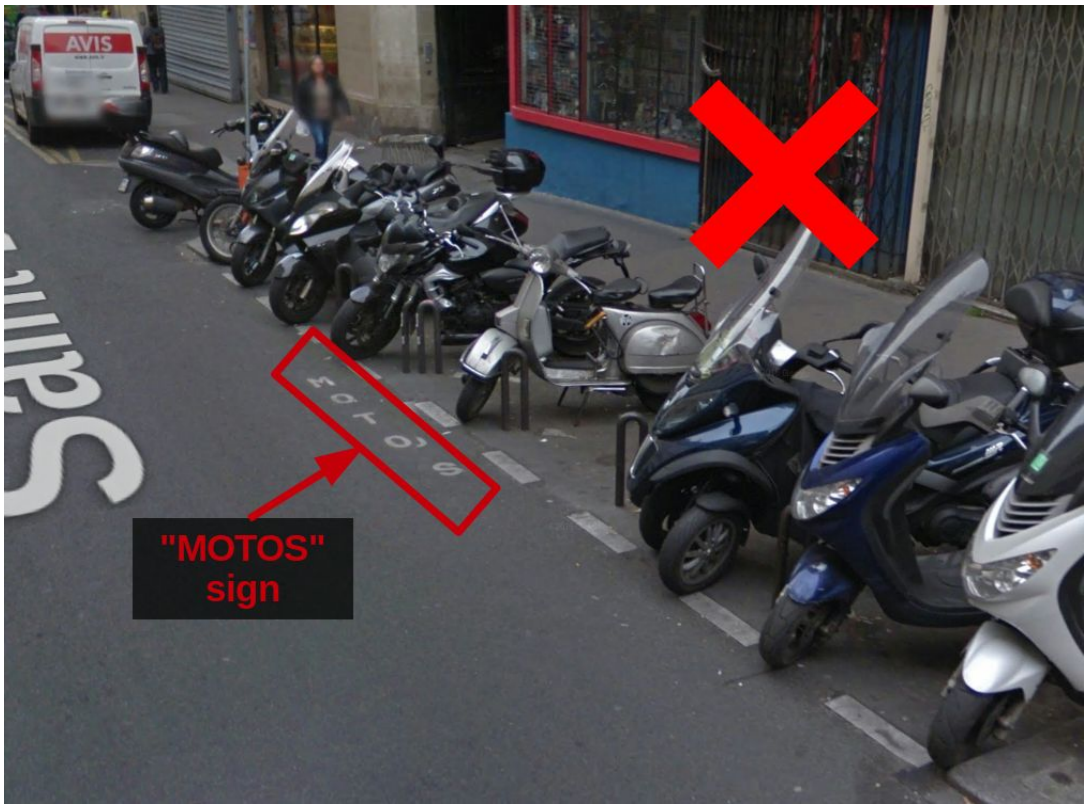
- TAXI
- TRANSPORTS DE FONDS
- POLICE
- AUTOCARS
- VELO
- MOTO
- 2ROUES
- AUTOLIB

All these notations are NOT for parking spaces for cars. When you see one of them, do not count the space. The ONLY notation that is specifies the presence of parking spaces for cars is “**PAYANT**”. If you see it, it is necessarily a parking space for cars that you should count.

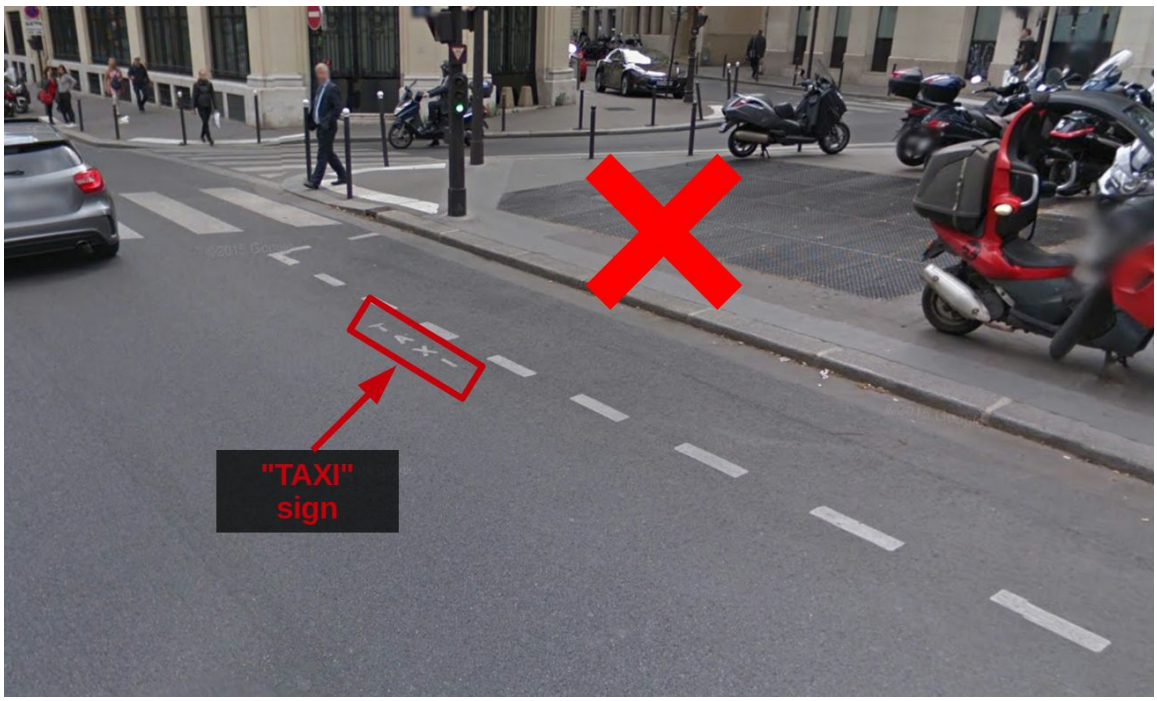
The following image displays a parking space for bikes and motorcycles. We are NOT interested in this kind of parking space, as we are only interested in parking spaces for cars. Therefore, you should NEVER count parking spaces for bikes and/or motorcycles. Note the sign “2ROUES” which indicates parking space for bikes and motorcycles. When this sign is present, it is not a parking space for cars and you should not count it.

The following picture is a similar example of parking spaces for cycles (note the “VELO” sign on the ground). As for the previous image, these spaces are not for cars and therefore should NOT be counted.

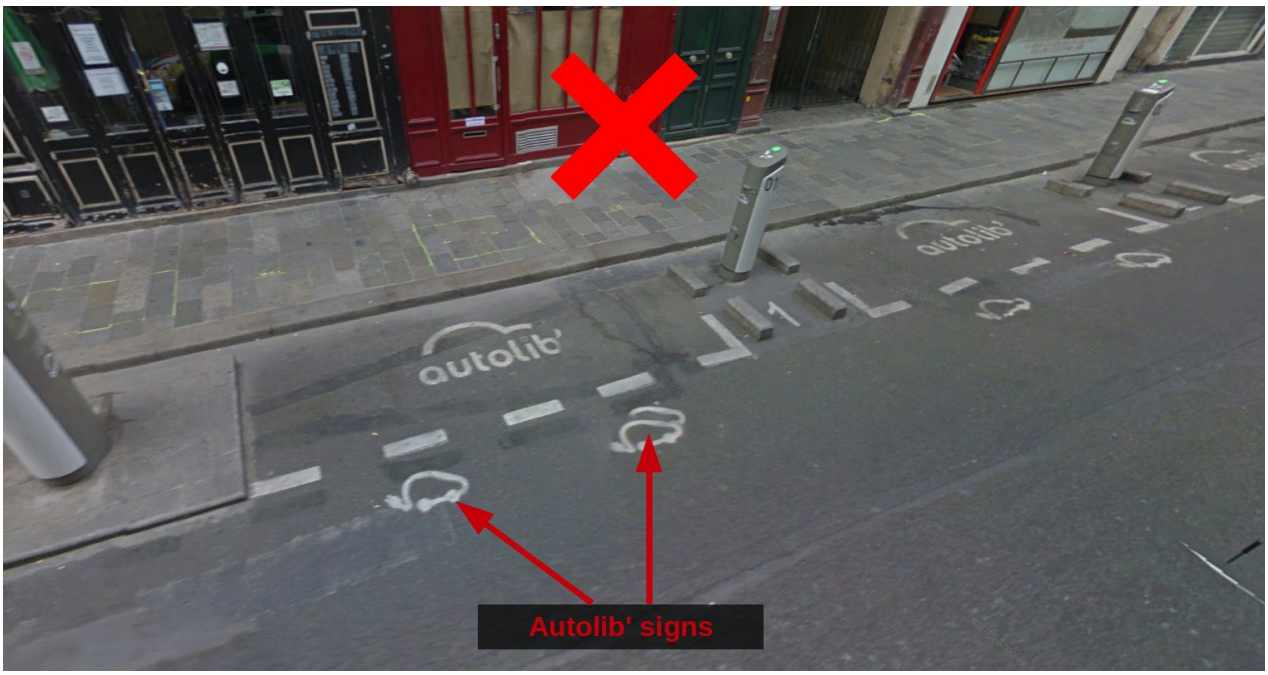
The following picture is a similar example of parking spaces for motorcycles (note the “MOTO” sign on the ground). As for the previous image, these spaces are not for cars and therefore should NOT be counted.



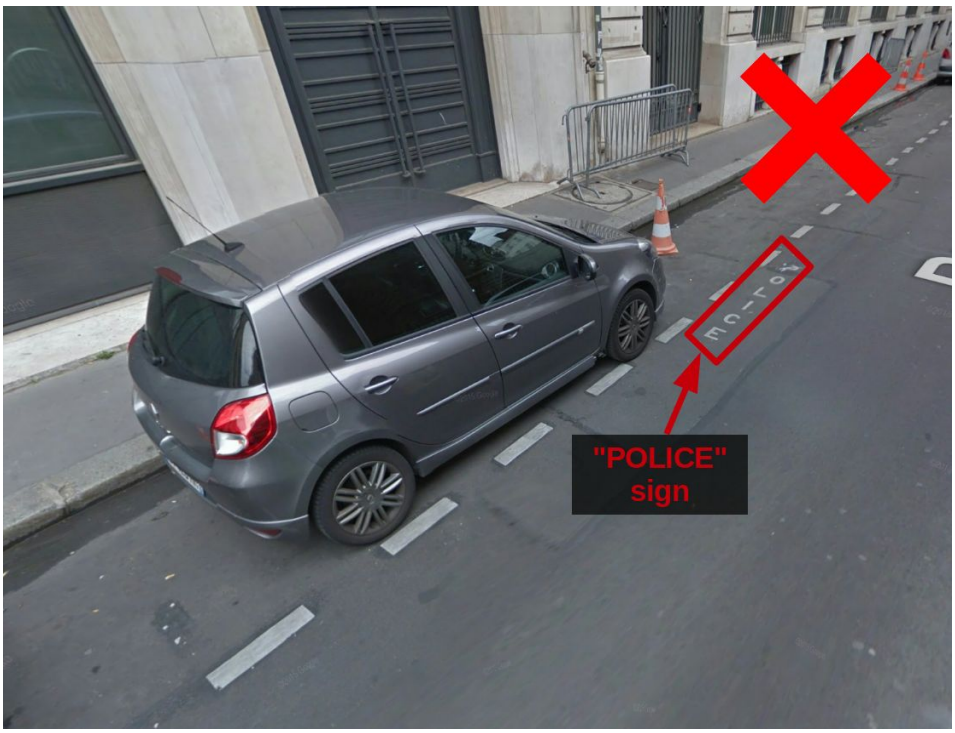
Sometimes a parking space can look like a parking space for cars, but is intended for very special purposes: it can be a parking space for taxis, for example. In this case it is usually written on the ground. In the following image, you can see that “TAXI” in written on the ground. In that case, DO NOT count this space as parking space:



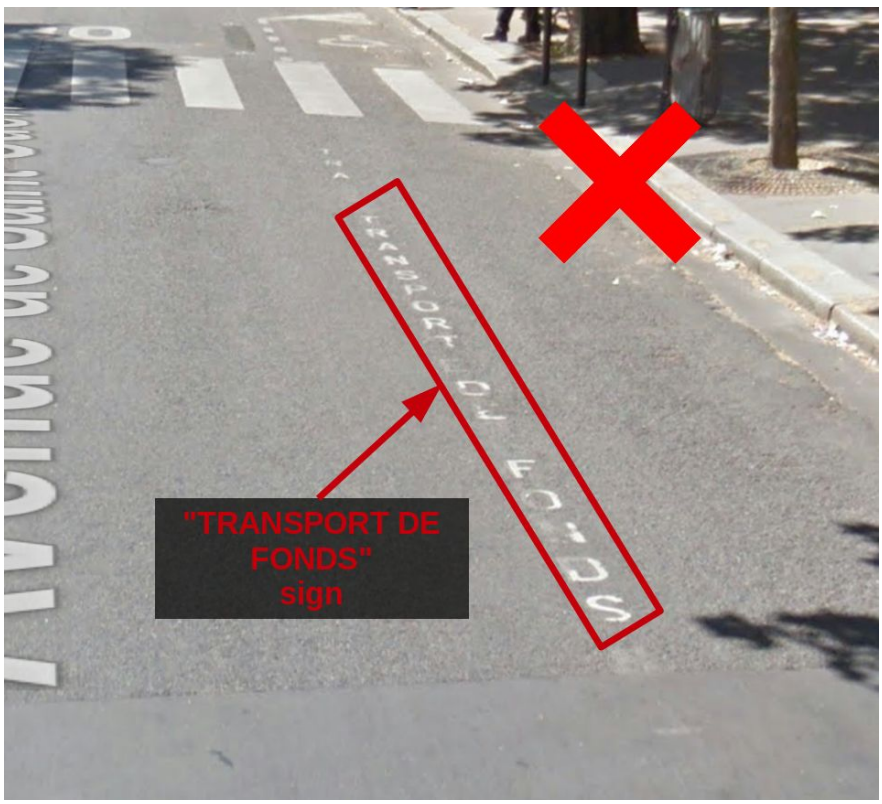
On the following picture, there is a special parking space for electric cars (called “Autolib”). These parking spaces SHOULD NOT be counted:



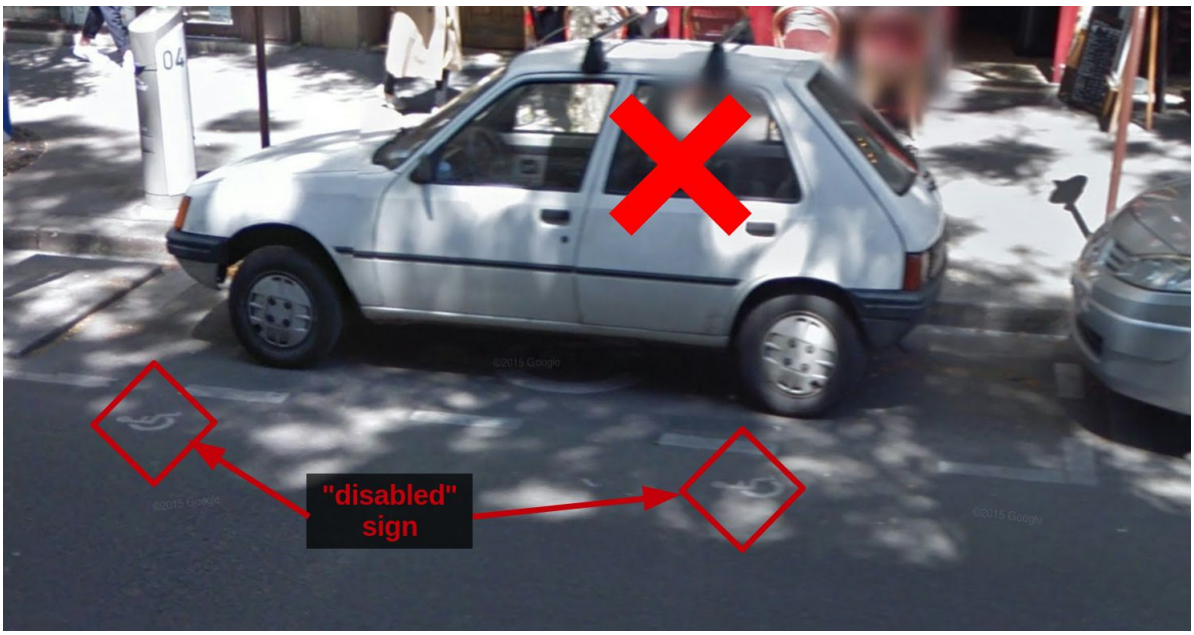
In the following picture, you will see another case of parking space that is intended for police cars ONLY (you can see it from the “POLICE” sign). We are not interested in parking spaces for police cars and therefore, you SHOULD NOT count these spaces:



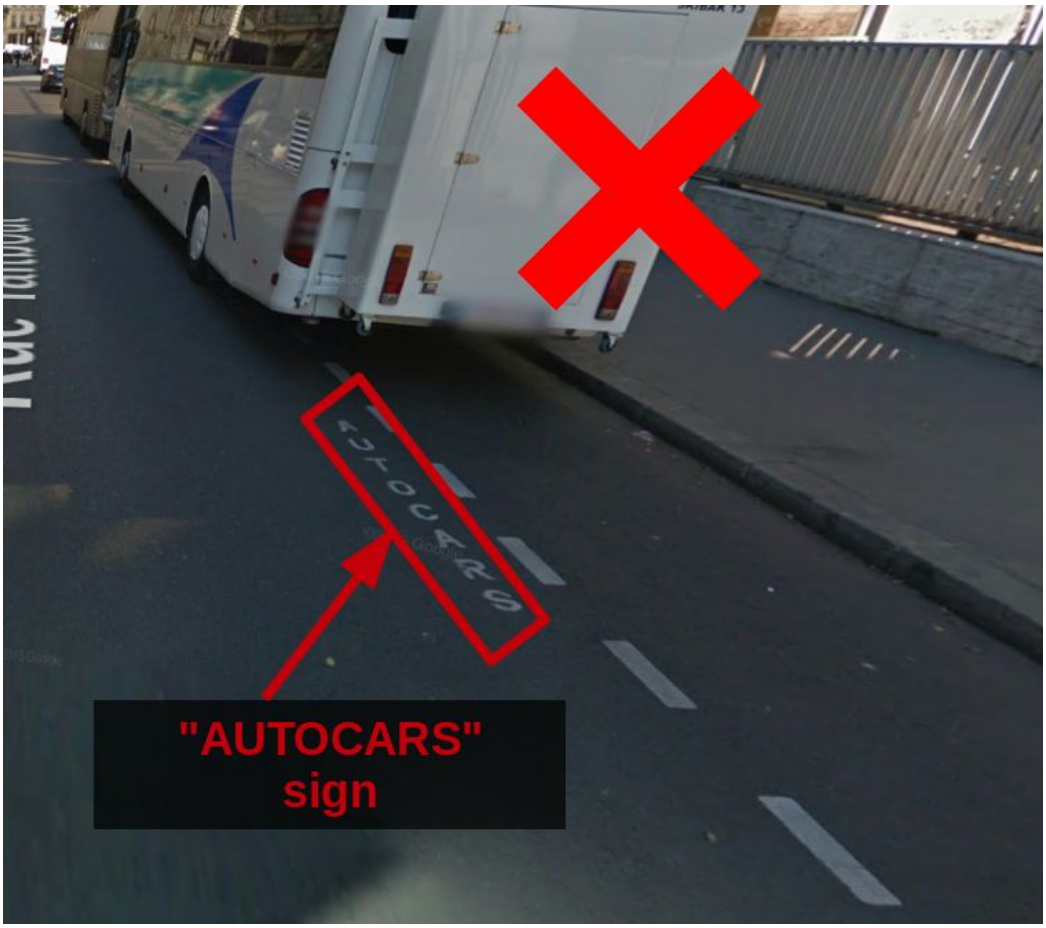
Similarly, we are not interested in parking spaces with the following signe “TRANSPORTS DE FONDS”, as shown in the following picture. When this sign is present, you should NOT count this parking space:



Some parking spaces for cars are intended only for disabled people. You can see an example of these parking spaces in the following picture: these parking spaces are marked with a disabled sign. Do NOT count these parking spaces:



In the following picture, you can see a parking space that is intended for coaches only. You can see it from the sign “AUTOCARS” (coaches in French) on the ground. We are not interested in parking spaces for coaches: When this sign is present, DO NOT count the parking space:

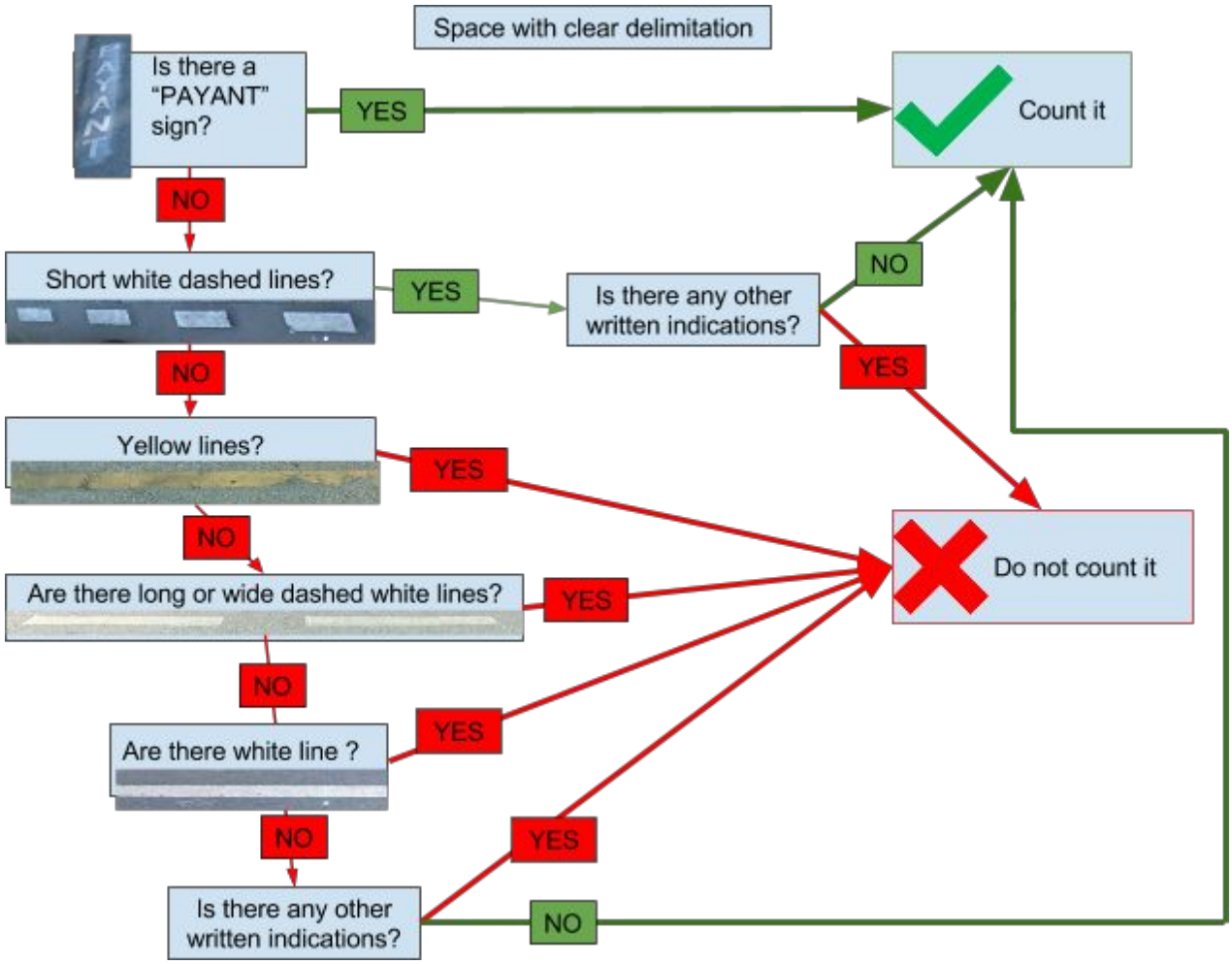


Do not count spaces with no marking nor clear delimitation

In the following picture also, a car is parked. But there is no sign allowing it (NO **SHORT DASHED WHITE LINE**, NOR "**PAYANT**" sign, nor clear delimitation on the ground), so it should not be counted as a parking space for cars:

3 / : cheat sheet

Here is a cheat sheet you can use to help yourself deciding if the parking space you see should be counted or not. Feel free to print this diagram if it helps you.



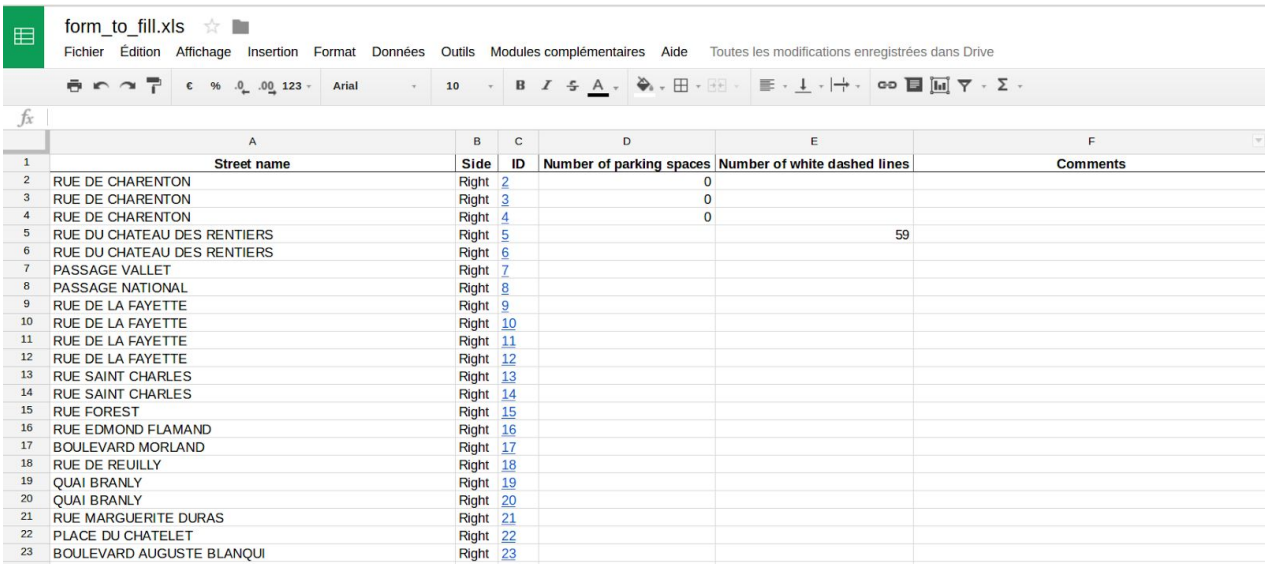
You can also find this diagram on http://cbienpourtoi.github.io/flowchart_parking_space.png .

2/ Counting Parking Spaces - How to work

The spreadsheet to fill:

Open the following link:

You should obtain something like this :



form_to_fill.xls

Fichier Édition Affichage Insertion Format Données Outils Modules complémentaires Aide Toutes les modifications enregistrées dans Drive

	A	B	C	D	E	F
1	Street name	Side	ID	Number of parking spaces	Number of white dashed lines	Comments
2	RUE DE CHARENTON	Right	2	0		
3	RUE DE CHARENTON	Right	3	0		
4	RUE DE CHARENTON	Right	4	0		
5	RUE DU CHATEAU DES RENTIERS	Right	5		59	
6	RUE DU CHATEAU DES RENTIERS	Right	6			
7	PASSAGE VALLET	Right	7			
8	PASSAGE NATIONAL	Right	8			
9	RUE DE LA FAYETTE	Right	9			
10	RUE DE LA FAYETTE	Right	10			
11	RUE DE LA FAYETTE	Right	11			
12	RUE DE LA FAYETTE	Right	12			
13	RUE SAINT CHARLES	Right	13			
14	RUE SAINT CHARLES	Right	14			
15	RUE FOREST	Right	15			
16	RUE EDMOND FLAMAND	Right	16			
17	BOULEVARD MORLAND	Right	17			
18	RUE DE REUILLY	Right	18			
19	QUAI BRANLY	Right	19			
20	QUAI BRANLY	Right	20			
21	RUE MARGUERITE DURAS	Right	21			
22	PLACE DU CHATELET	Right	22			
23	BOULEVARD AUGUSTE BLANQUI	Right	23			

The first column (Street name) is the name of the street on which you will count the number of parking spaces for cars.

The second column (Side) is the side on which you will look for parking spaces for cars.

The third column (ID) is a blue number.

The fourth column is entitled “Number of parking spaces”. You will have to fill numbers on that column: we will explain you how later in this document.

The fifth column is entitled “Number of white dashed lines”. You will have to fill numbers on that column: we will explain you how later in this document.

The sixth column is entitled “Comments”. You should feel free to write comments in this column, if you are in doubt about your work.

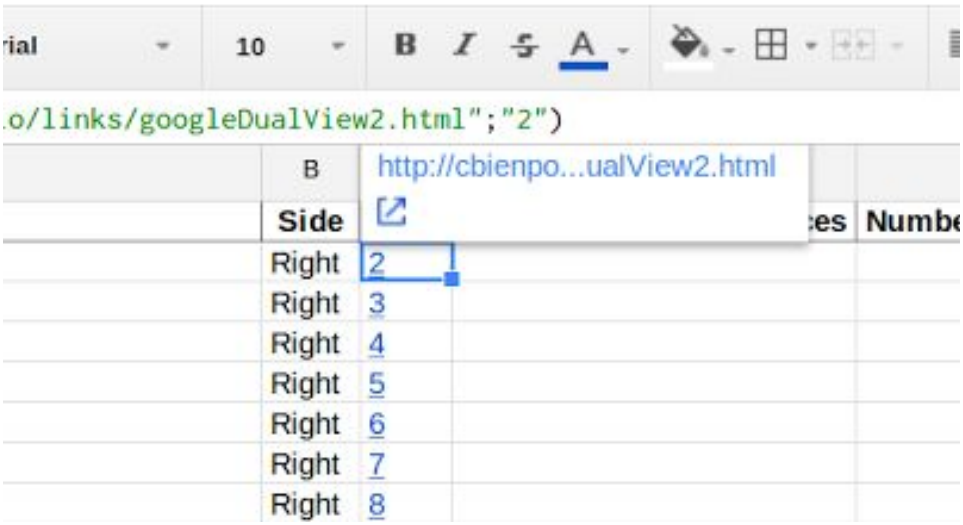
You should change only the last 3 columns:

- “Number of parking spaces”
- “Number of white dashed lines”
- “Comments”

For each new line, you can fill the 3 column is the situation requires it. But you will usually only need to fill one of the columns.

We have already filled the 4 first lines of the spreadsheet. Your duty will be to fill all the other lines of the spreadsheet, after you finish reading this tutorial. This spreadsheet is short. Once this one is completed, we will send you longer ones.

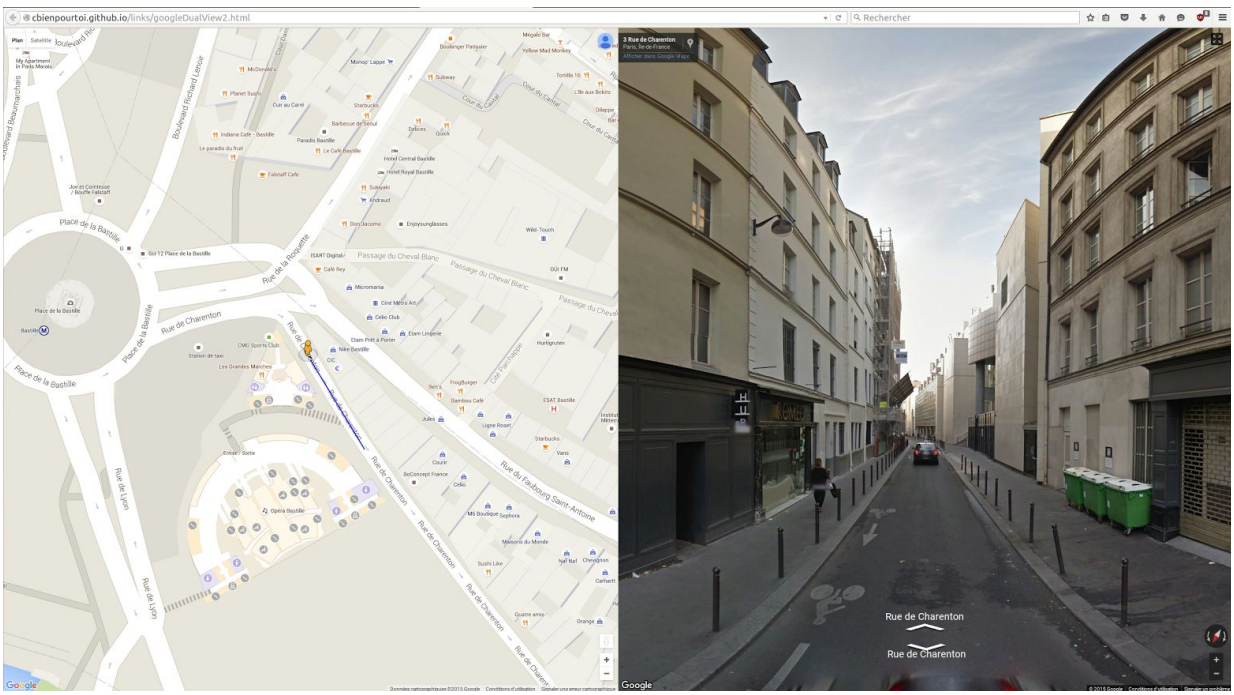
Now let's take a look at the third column (ID). The blue numbers are links: if you pass your mouse over a blue number it will open a small window. Let's try with the first ID: pass the cursor over number 2. You should see this:



Click on the sign .

The environment:

It should open the following page:

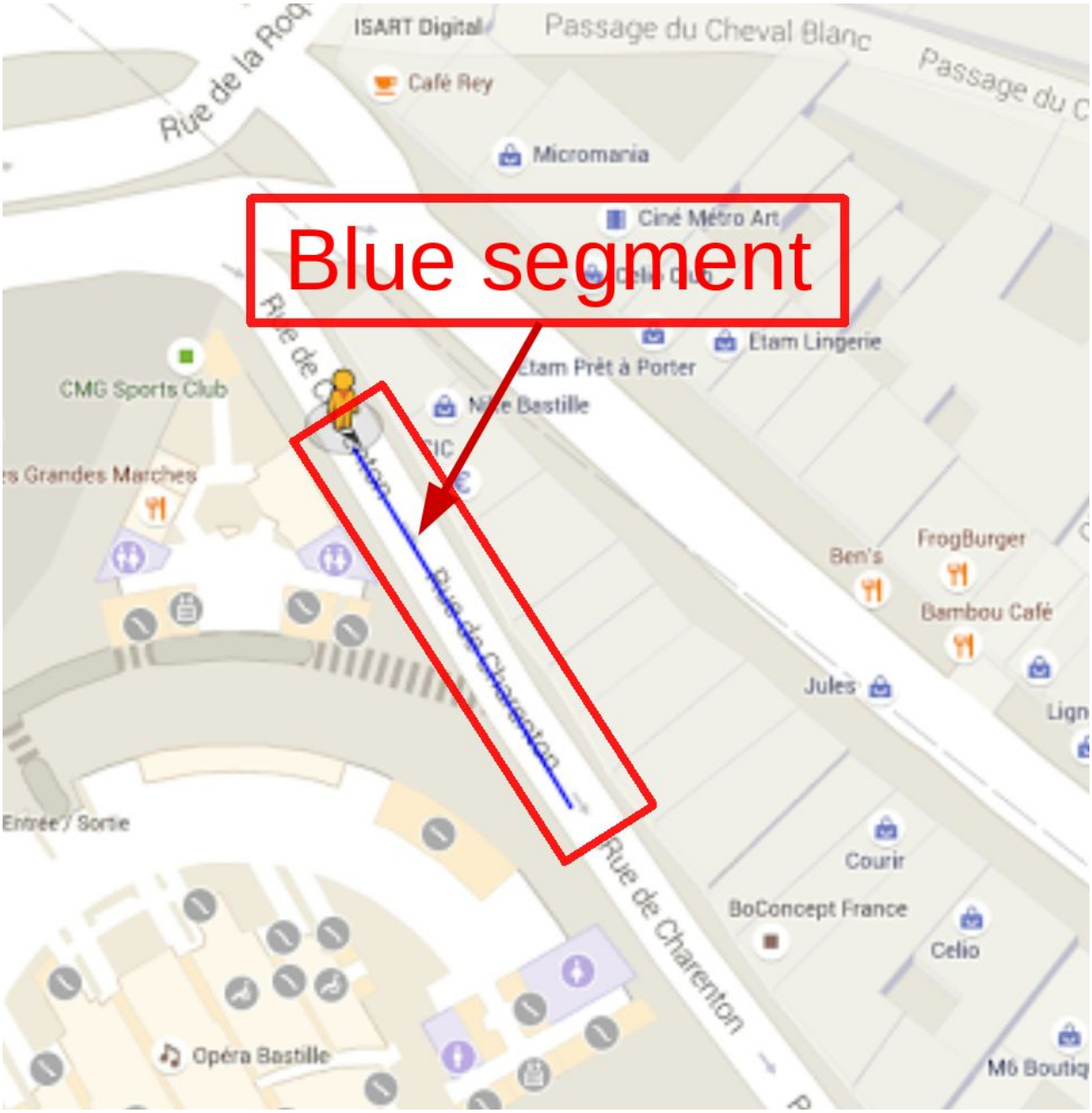


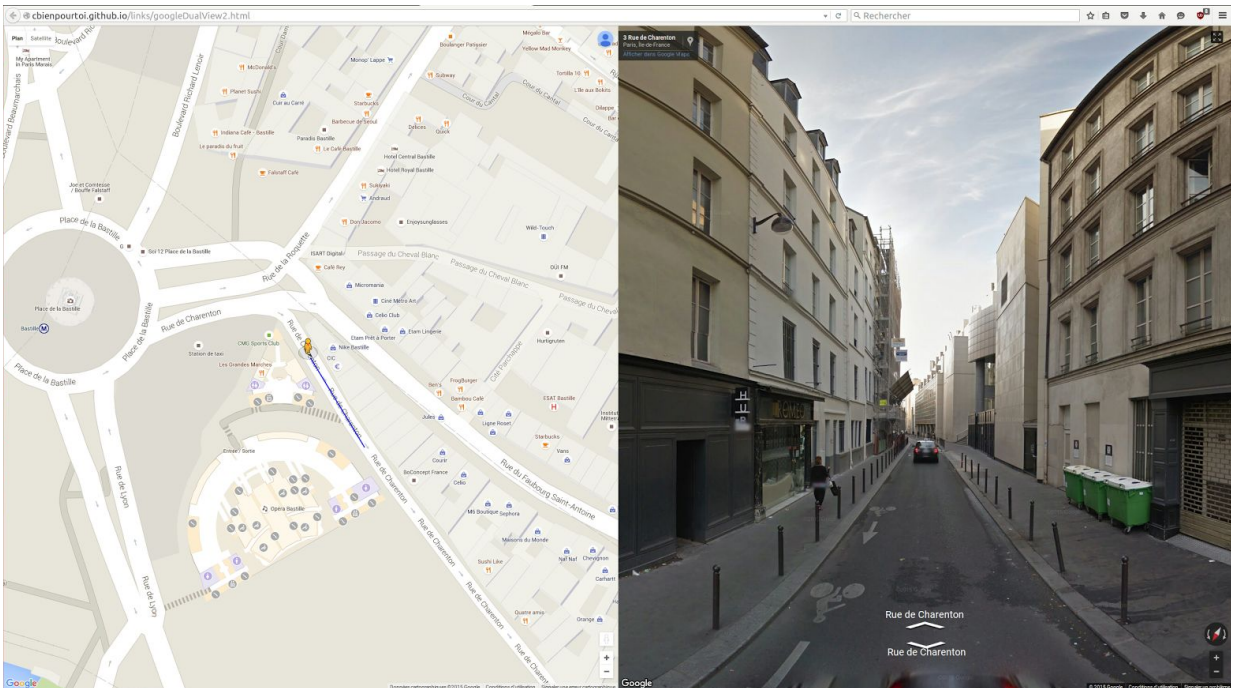
On the left panel of the page you have a map with:

- your position (yellow pin)
- the section of street on which you have to count the number of places (blue segment).

The yellow pin:

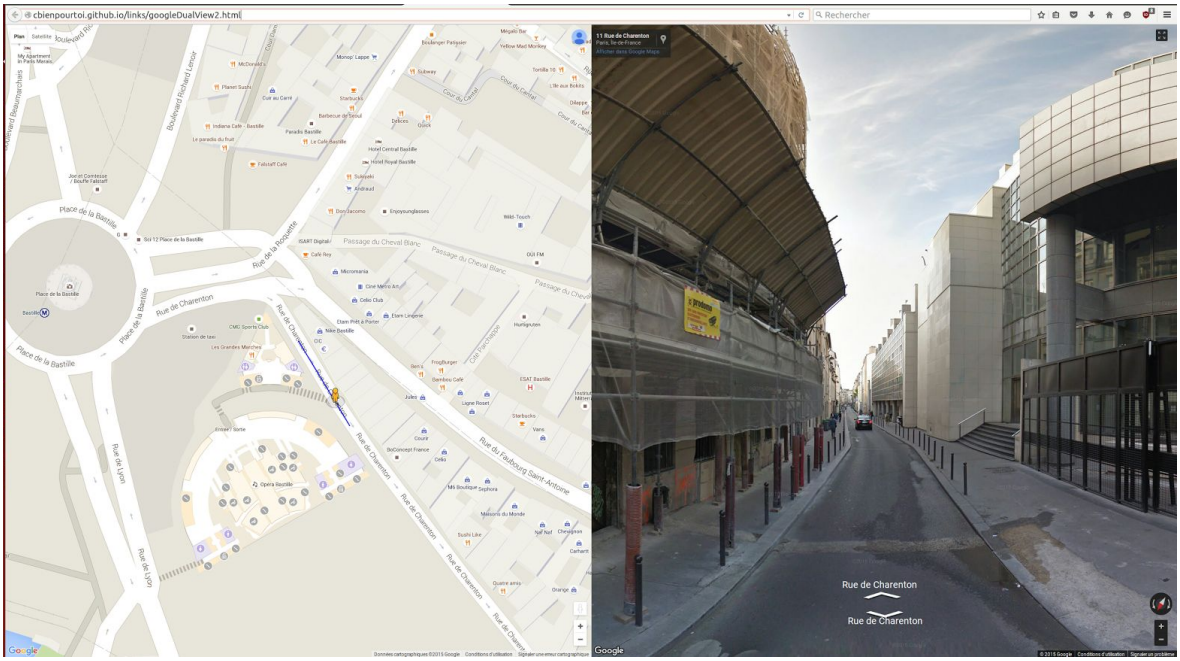
The blue segment:





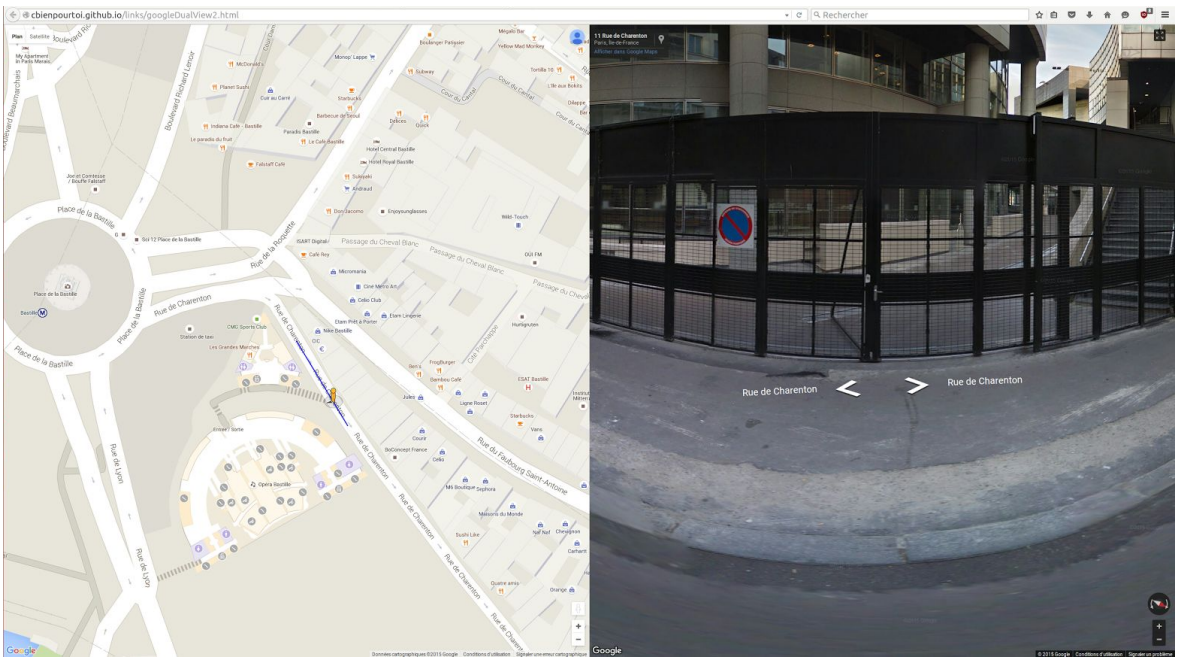
On the right panel of the page, you have an interactive environment where you can explore the street, and on which you will count the number of parking spaces. You can move in this environment by clicking on the following arrows:

Click 3 times on the upper arrow : you will move along the street, and you should end up with the following screen:

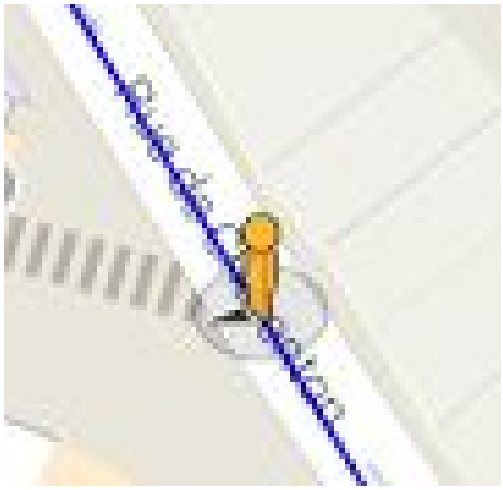


Note that while you moved in the street, the yellow pin on the left panel moved as well: this yellow pin represents your position.

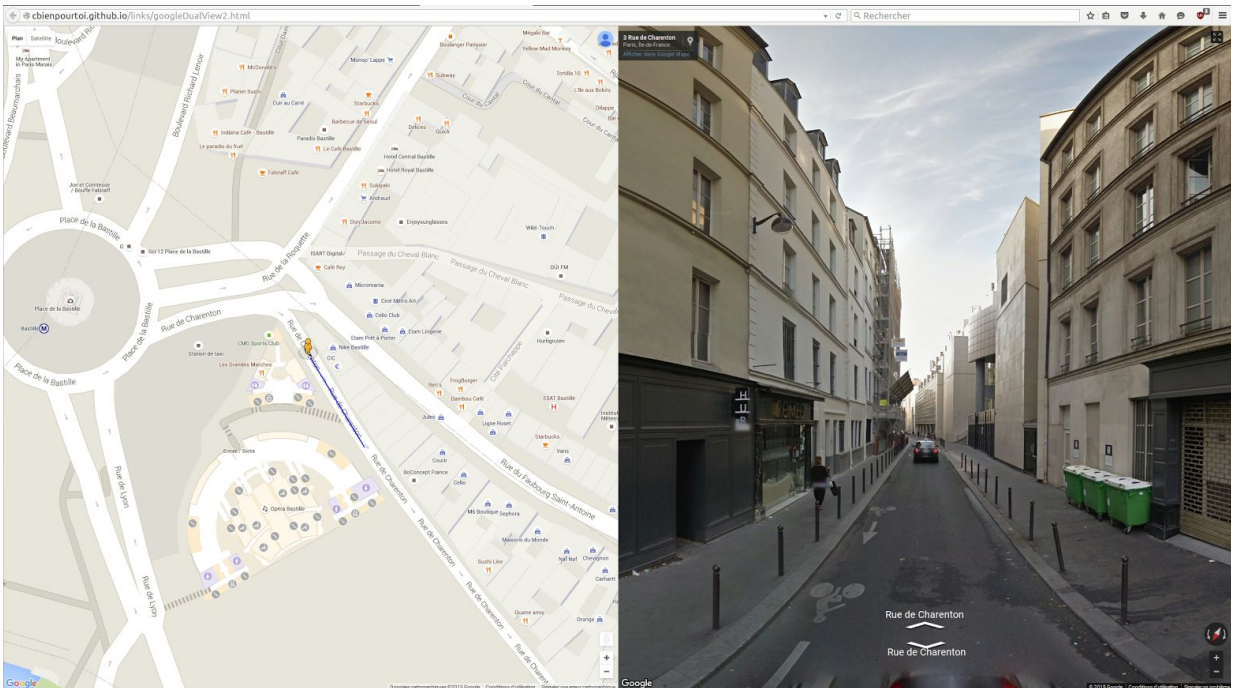
You can also move your view on the right panel: click anywhere, keep your button pressed and move your cursor around : you can for example look on the right:



Note that the arrow associated with the yellow pin also moved:

Before looking on the right side:	After:
	

Let’s go back at the beginning of the segment. For this, simply go back to the spreadsheet you have to fill, and pass over the number “2” and click on . You should go back to the initial screen:



The yellow pin is back to the initial position, at the beginning of the segment.

Counting parking spaces for cars

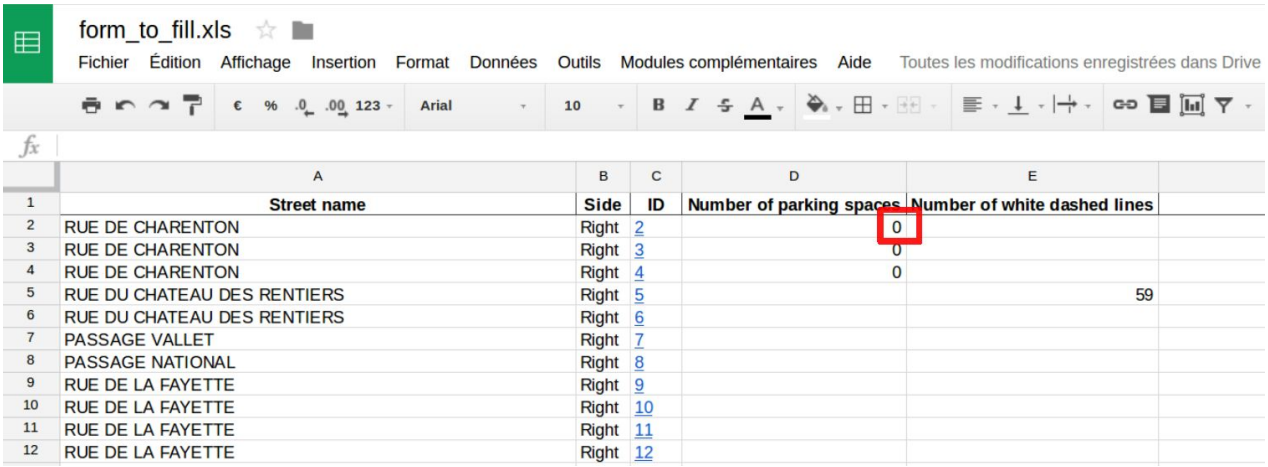
As indicated in the spreadsheet, the side on which you will look for places is the RIGHT SIDE of the street (column “Side” of the spreadsheet):

In order to count the number of parking spaces for cars, move along the blue segment as indicated previously, and count the number of parking spaces for cars. To recognize parking spaces, you should have already read the first part of this document “Recognizing Parking Spaces”.

Move along on this street from the beginning to the end of the blue segment and look for parking spaces for cars on your right. Stop when the yellow pin is at the end at the end of the blue segment! **You should NOT count parking spaces outside the blue segment.**

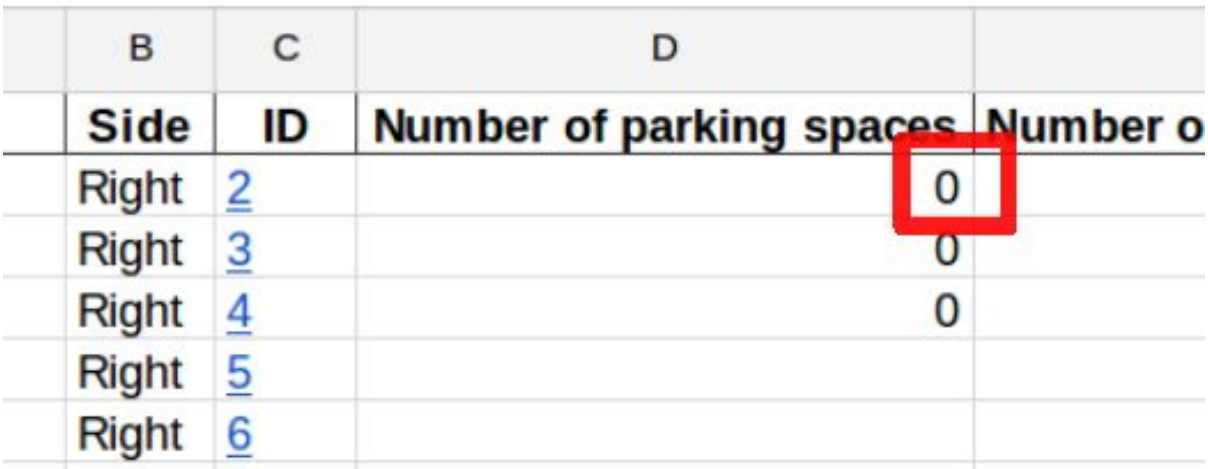
As you move along on this street from the beginning to the end of the blue segment, you will remark that there is no parking space for cars at all in the blue segment.

Come back to the spreadsheet. Normally, you should write your result in it and put a zero in the column “Number of parking spaces”. For this line, we already did it for you:



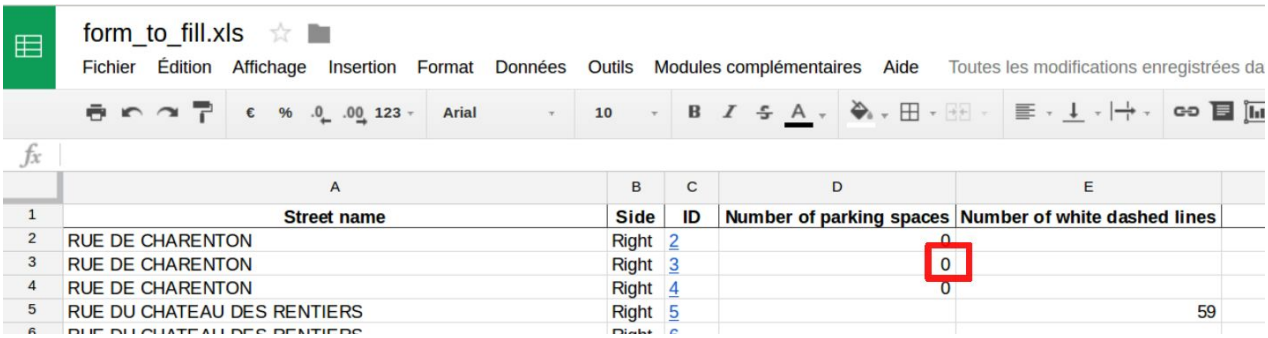
	A	B	C	D	E
1	Street name	Side	ID	Number of parking spaces	Number of white dashed lines
2	RUE DE CHARENTON	Right	2	0	
3	RUE DE CHARENTON	Right	3	0	
4	RUE DE CHARENTON	Right	4	0	
5	RUE DU CHATEAU DES RENTIERS	Right	5		59
6	RUE DU CHATEAU DES RENTIERS	Right	6		
7	PASSAGE VALLET	Right	7		
8	PASSAGE NATIONAL	Right	8		
9	RUE DE LA FAYETTE	Right	9		
10	RUE DE LA FAYETTE	Right	10		
11	RUE DE LA FAYETTE	Right	11		
12	RUE DE LA FAYETTE	Right	12		

Zoom:



	B	C	D	
	Side	ID	Number of parking spaces	Number o
	Right	2	0	
	Right	3	0	
	Right	4	0	
	Right	5		
	Right	6		

Now, do the same for the following line: open the link for the blue number “3”, it will open a new window, look on the right side (as indicated in the “side” column), count the number of parking spaces for cars along the blue segment, on the right side of the street. Normally, you should note what your count under the column “Number of parking spaces”. Here, we already did it for you and there is already a 0:

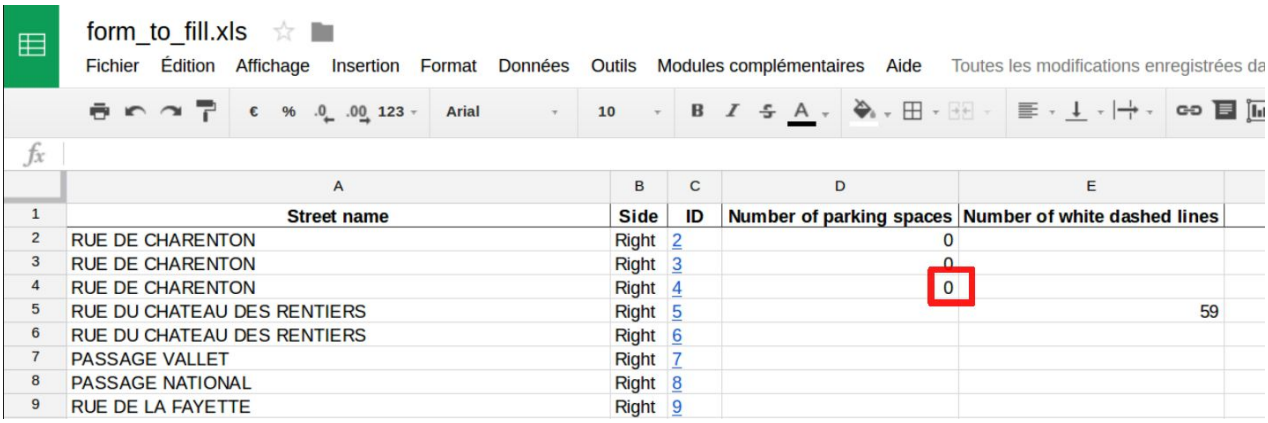


	A	B	C	D	E
1	Street name	Side	ID	Number of parking spaces	Number of white dashed lines
2	RUE DE CHARENTON	Right	2	0	
3	RUE DE CHARENTON	Right	3	0	
4	RUE DE CHARENTON	Right	4	0	
5	RUE DU CHATEAU DES RENTIERS	Right	5		59

Zoom:

	B	C	D	
	Side	ID	Number of parking spaces	Number of v
	Right	2	0	
	Right	3	0	
	Right	4	0	
	Right	5		
	Right	6		
	Right	7		

Do it now also for the blue number “4”: you should find zero parking spaces for 4, and end up with this:



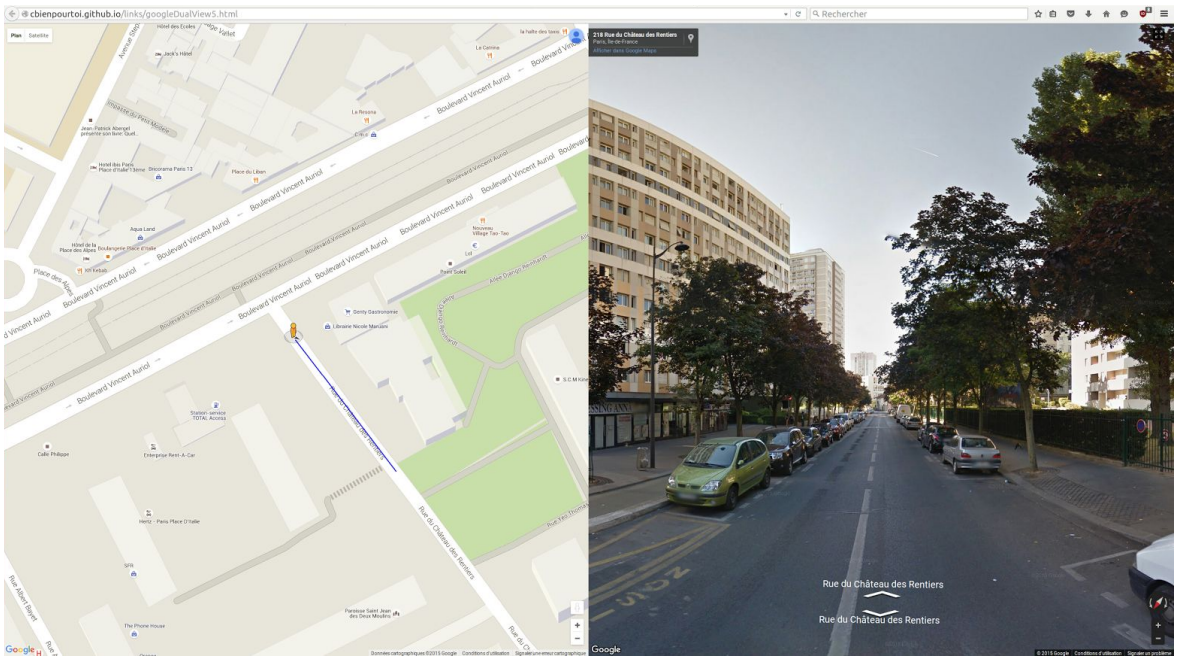
	A	B	C	D	E
1	Street name	Side	ID	Number of parking spaces	Number of white dashed lines
2	RUE DE CHARENTON	Right	2	0	
3	RUE DE CHARENTON	Right	3	0	
4	RUE DE CHARENTON	Right	4	0	
5	RUE DU CHATEAU DES RENTIERS	Right	5		59
6	RUE DU CHATEAU DES RENTIERS	Right	6		
7	PASSAGE VALLET	Right	7		
8	PASSAGE NATIONAL	Right	8		
9	RUE DE LA FAYETTE	Right	9		

Zoom:

	B	C	D	
	Side	ID	Number of parking spaces	Number of v
	Right	2	0	
	Right	3	0	
	Right	4	0	
	Right	5		
	Right	6		
	Right	7		

Counting parking spaces delimited by short white lines:

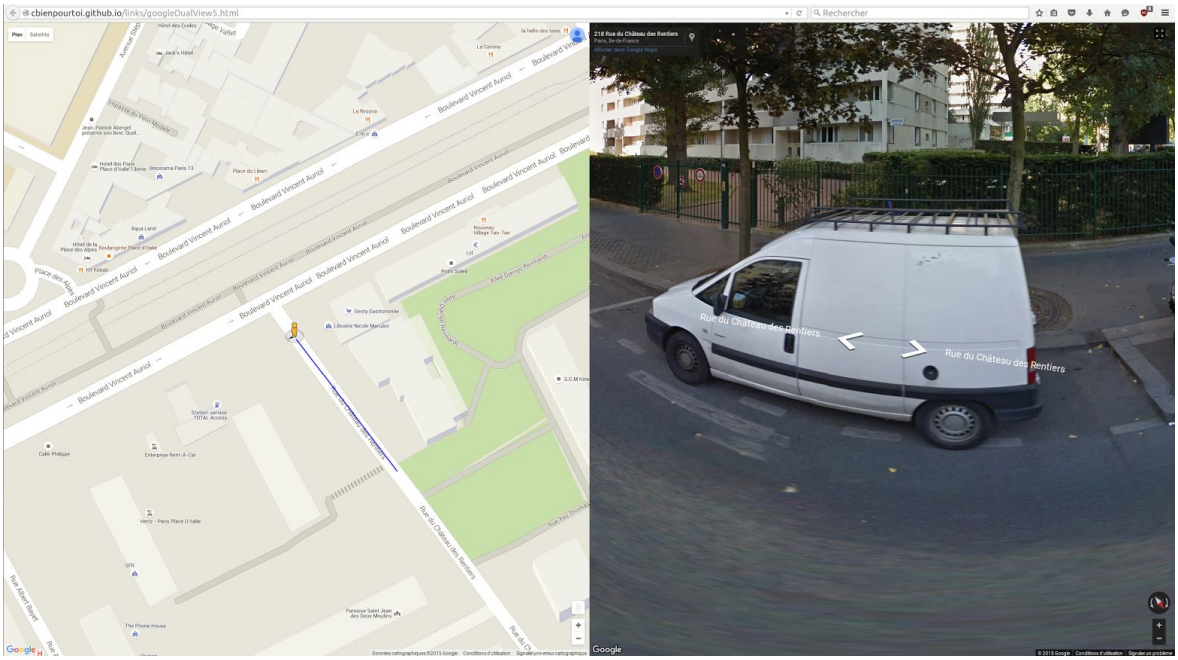
Now, let’s open the link on the blue number “5”. You should see this:



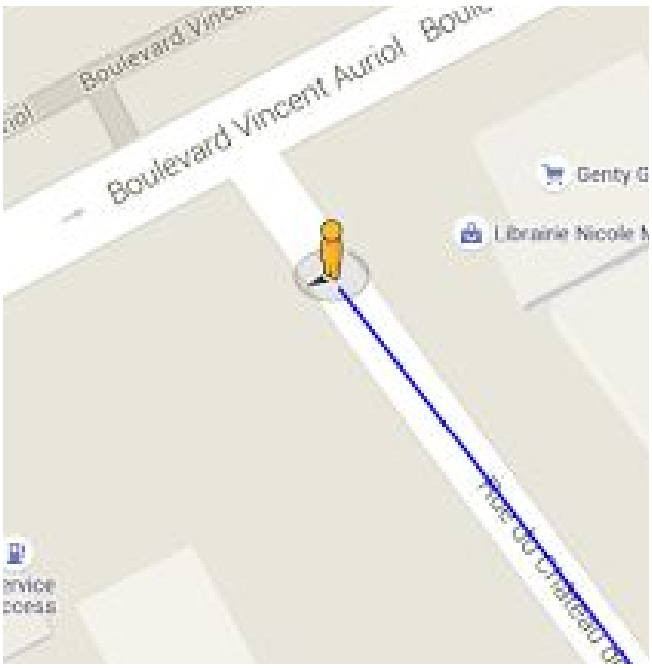
This time there are parking spaces for cars on the right side of the street:

Let’s count all the parking spaces for cars that are on the right side (as indicated in the column “side”) and along the blue segment:

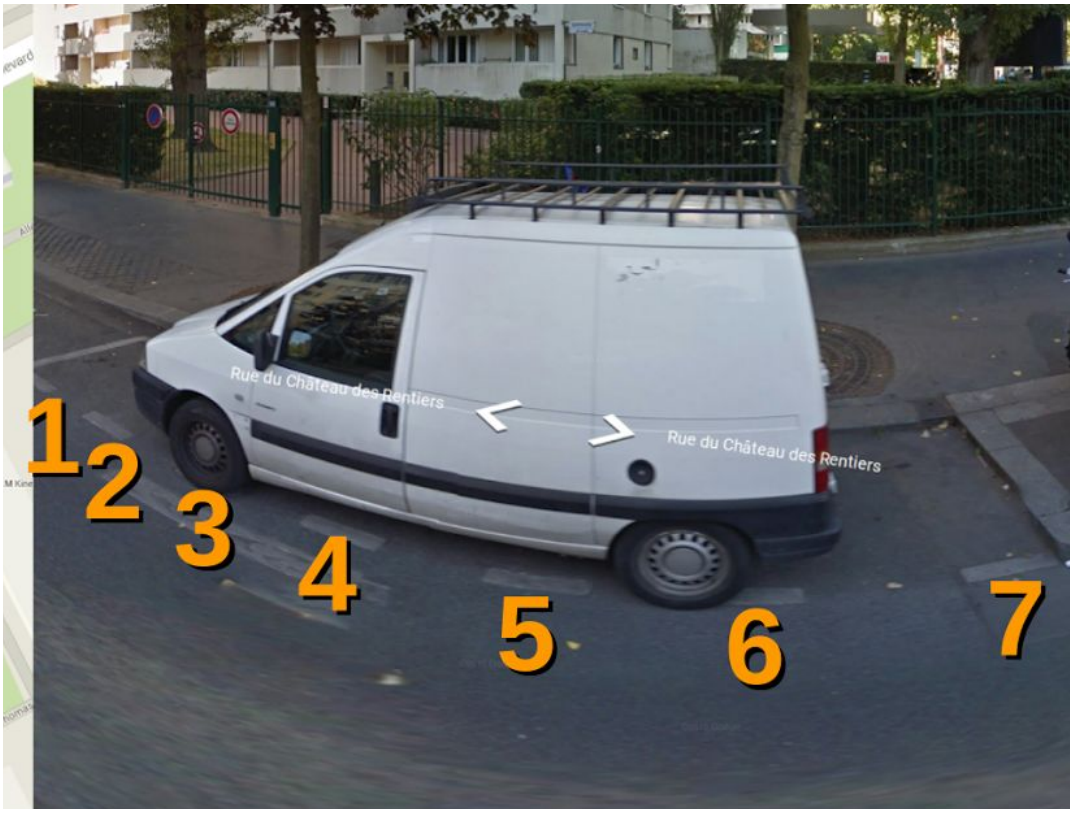
When parking spaces for cars are delimited by dashed white lines (like in here), you will count the total number of short white lines along the blue segment: move on the right side to look at the parking space:



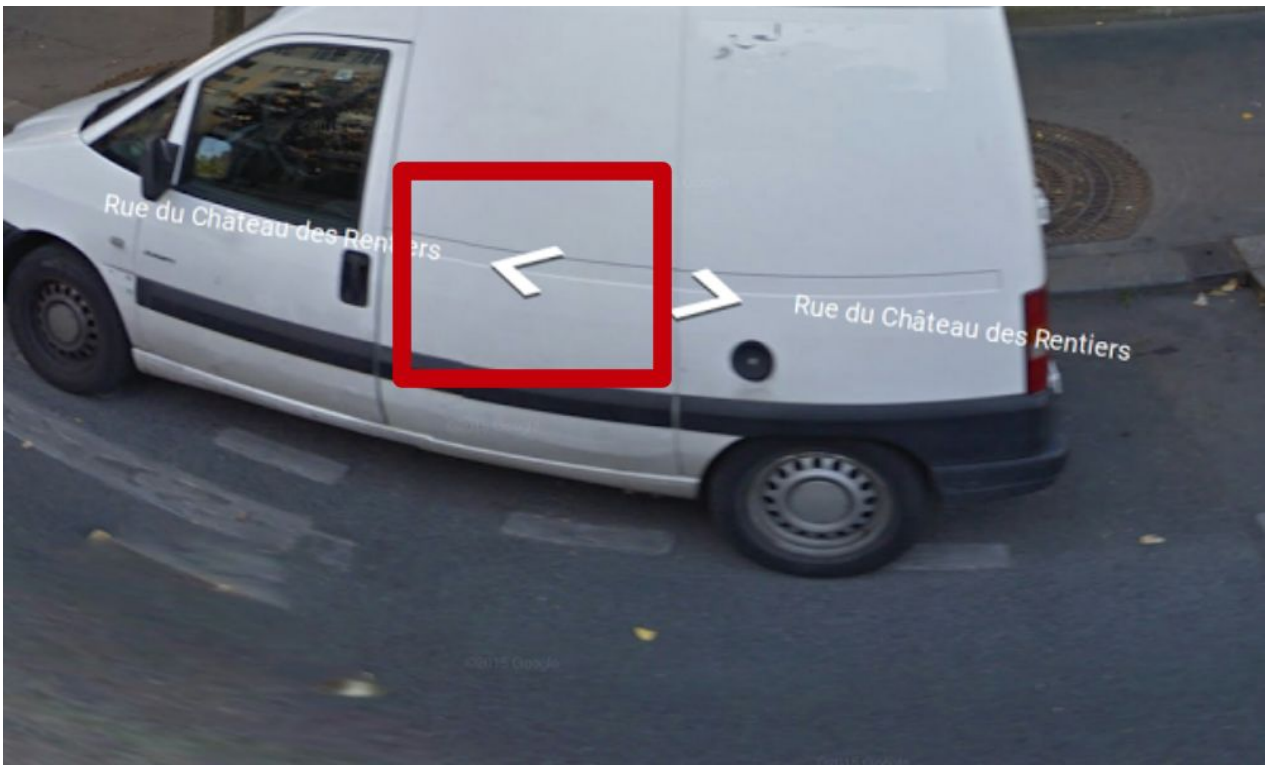
Note that the yellow pin is now looking on the side of the street:



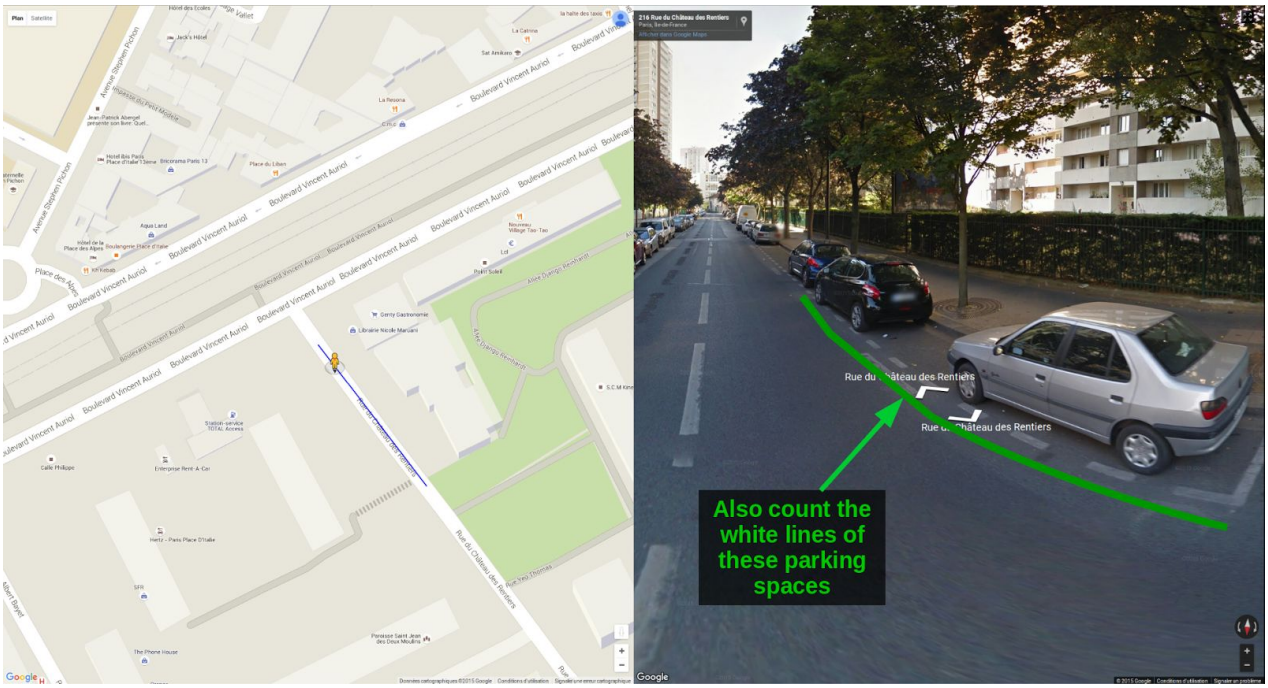
At the place you are, you should count 7 short white lines (the number 3 is under the front tyre of the car). You can see on the following picture how to count them:

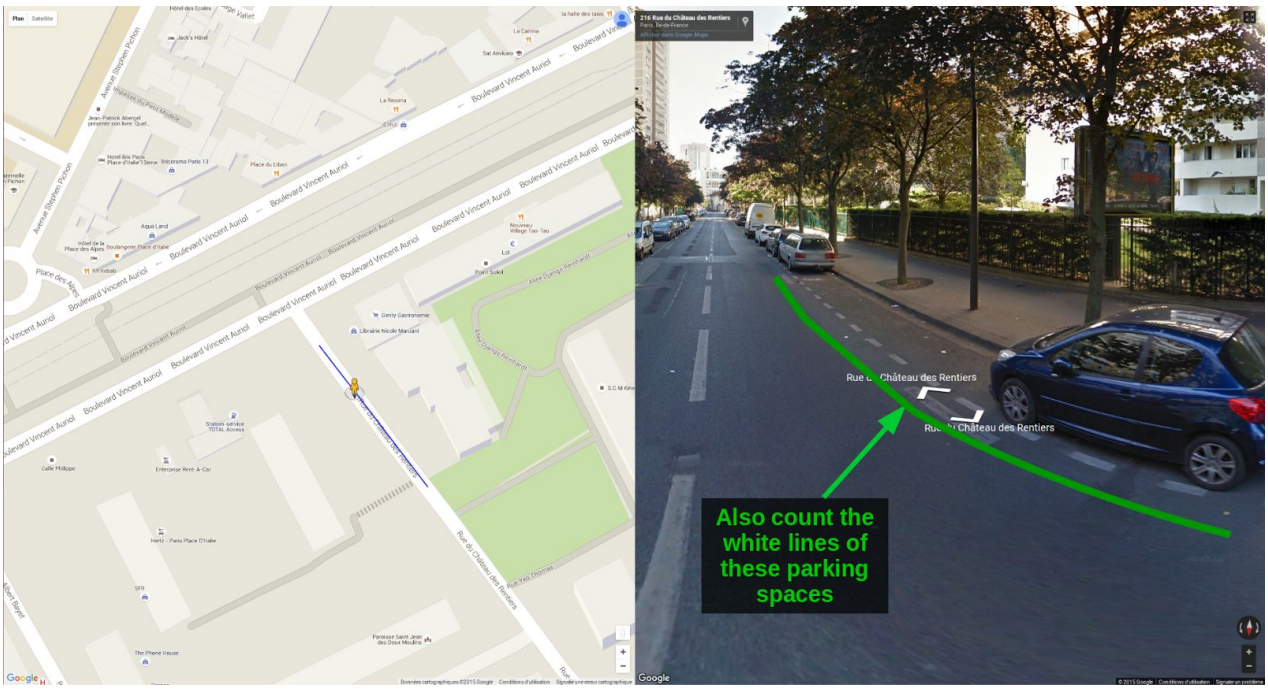


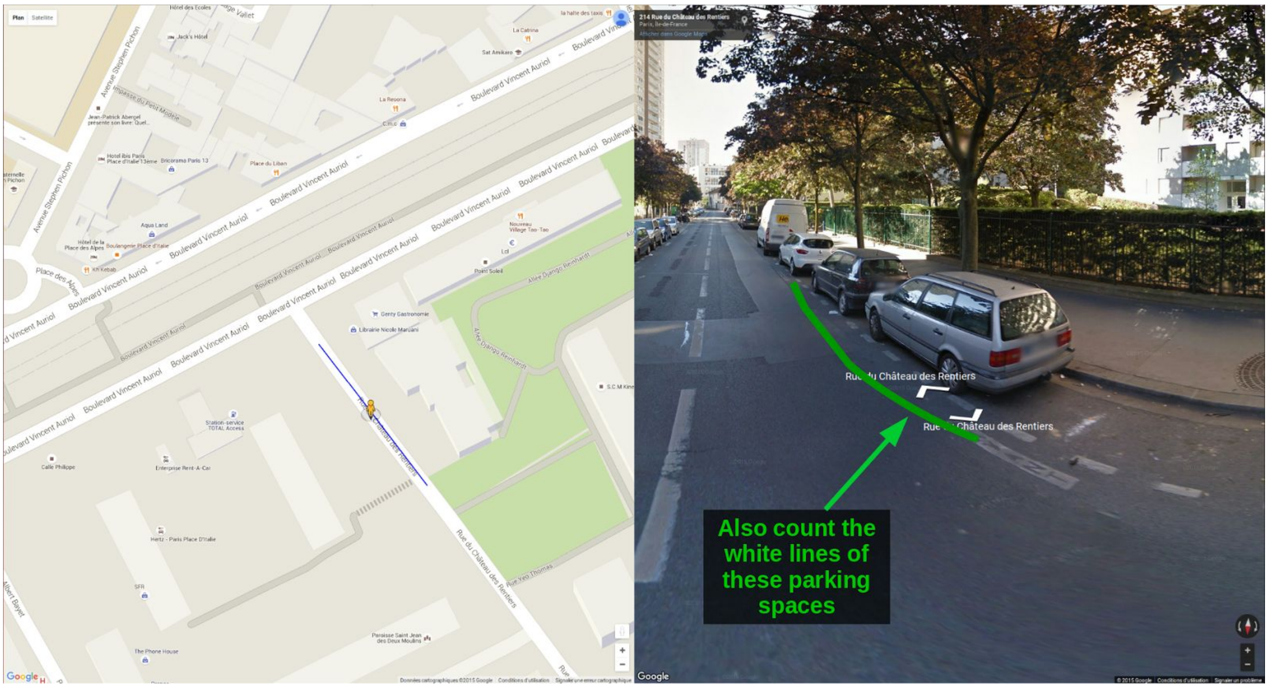
Move along the blue segment and count all the short white lines (on the right side, as indicated in the “side” column). Use the white arrow to move along the segment:

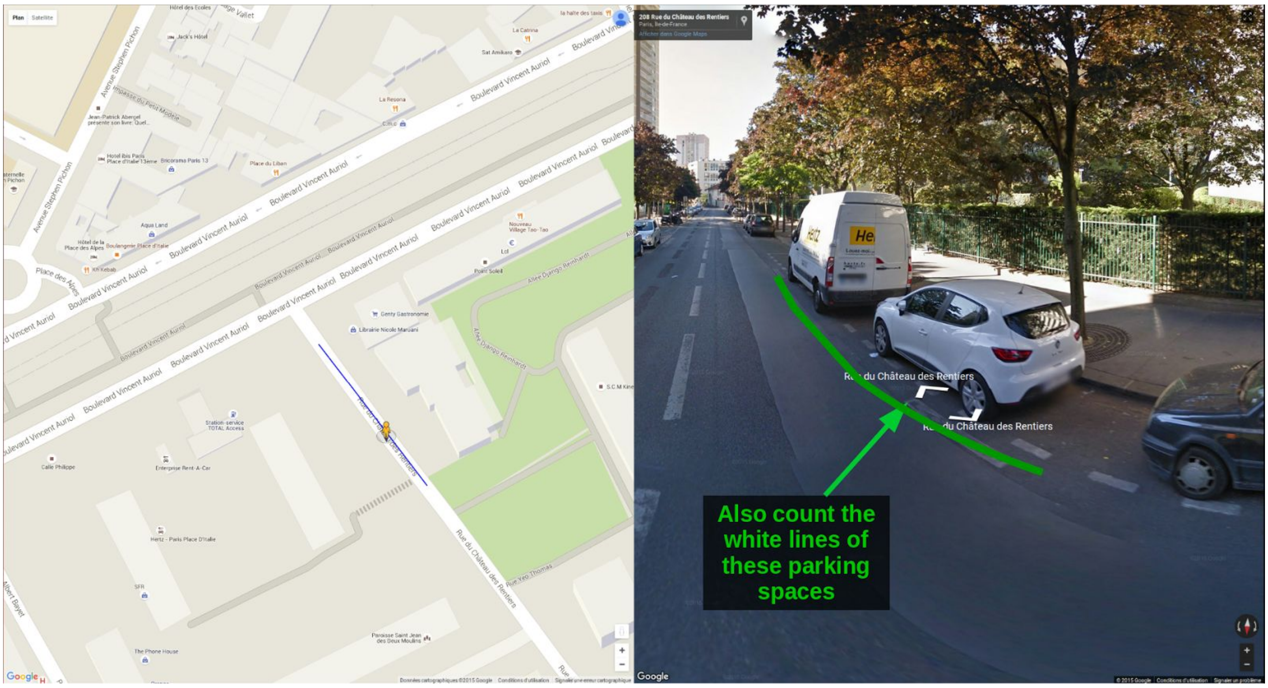


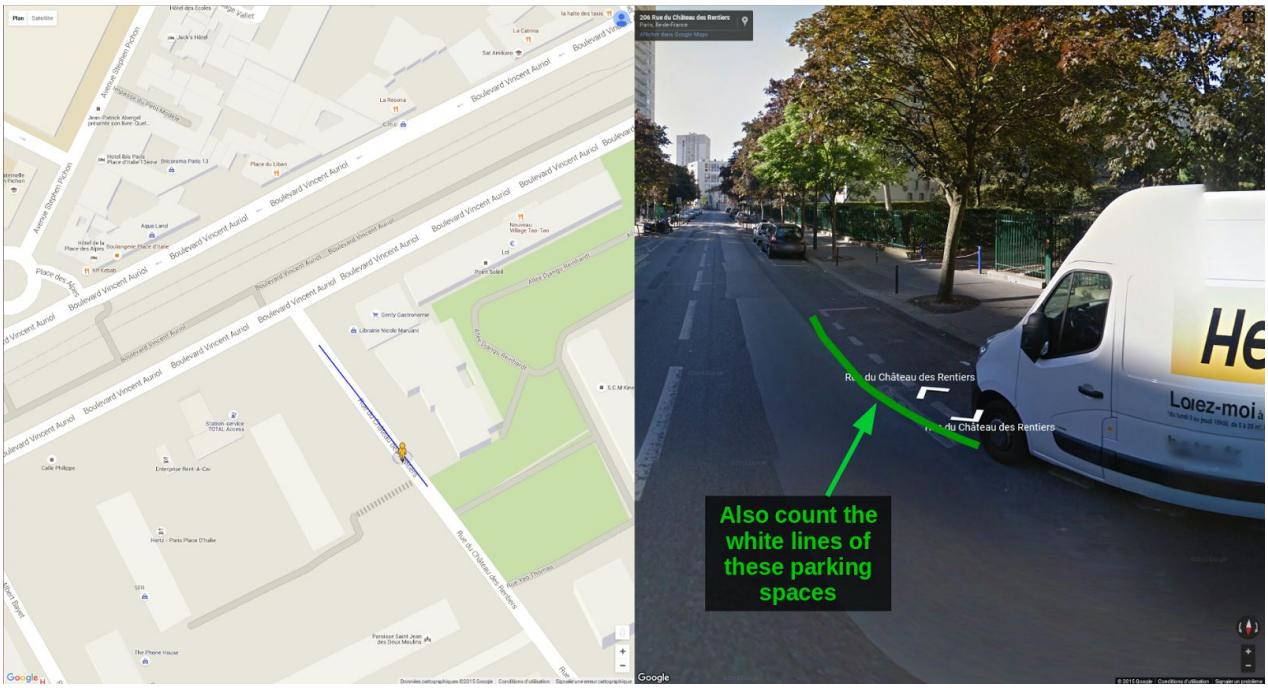
You should count all the short white lines in the correct parking spaces along the blue segment. The following images show the regions where you will count white dashed lines from parking spaces, while moving along the blue segment:






Also count the white lines of these parking spaces

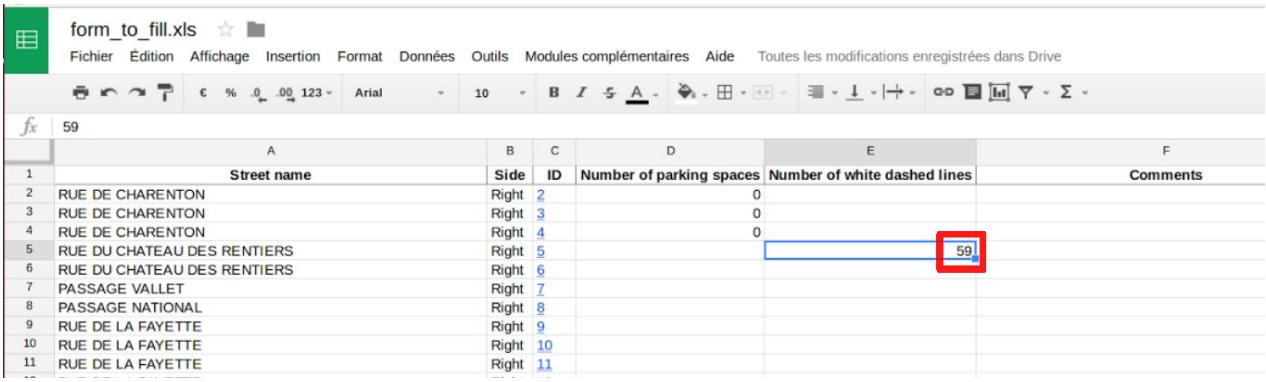

Also count the white lines of these parking spaces



You should find about 59 short white lines in total. A precise number is not necessary. if you find between 56 and 62, it is OK. Otherwise, try counting again, and if you still find a number outside the correct range of 56 to 62, you should not continue this work but instead ask us for advice (loic.letiran@apila.fr).

You should now put the number you found in the column “Number of white dashed lines”. BE CAREFUL: Do not put the number under the column “Number of parking spaces”. Each time you find this type of parking spaces, and count the dashed lines, you should be careful to put the number you find under the column “Number of white dashed lines”.

Normally, you should now put the number you obtained in the following spreadsheet, but for this case, we already did it for you:



	A	B	C	D	E	F
1	Street name	Side	ID	Number of parking spaces	Number of white dashed lines	Comments
2	RUE DE CHARENTON	Right	2	0		
3	RUE DE CHARENTON	Right	3	0		
4	RUE DE CHARENTON	Right	4	0		
5	RUE DU CHATEAU DES RENTIERS	Right	5		59	
6	RUE DU CHATEAU DES RENTIERS	Right	6			
7	PASSAGE VALLET	Right	7			
8	PASSAGE NATIONAL	Right	8			
9	RUE DE LA FAYETTE	Right	9			
10	RUE DE LA FAYETTE	Right	10			
11	RUE DE LA FAYETTE	Right	11			

Zoom:

B	C	D	E
Side	ID	Number of parking spaces	Number of white dashed lines
Right	2	0	
Right	3	0	
Right	4	0	
Right	5		59
Right	6		
Right	7		

If you have any doubt or any comment about counting the number of places, you should write it under the “Comments” section. If in doubt, it is better to write something in the comment section that anything in the other sections.

Remember: When parking spaces for cars are delimited by short white dashed lines, you should count the number of these short white dashed lines and put the number you find in the column “Number of white dashed lines”.

Counting parking spaces with NO short white lines:

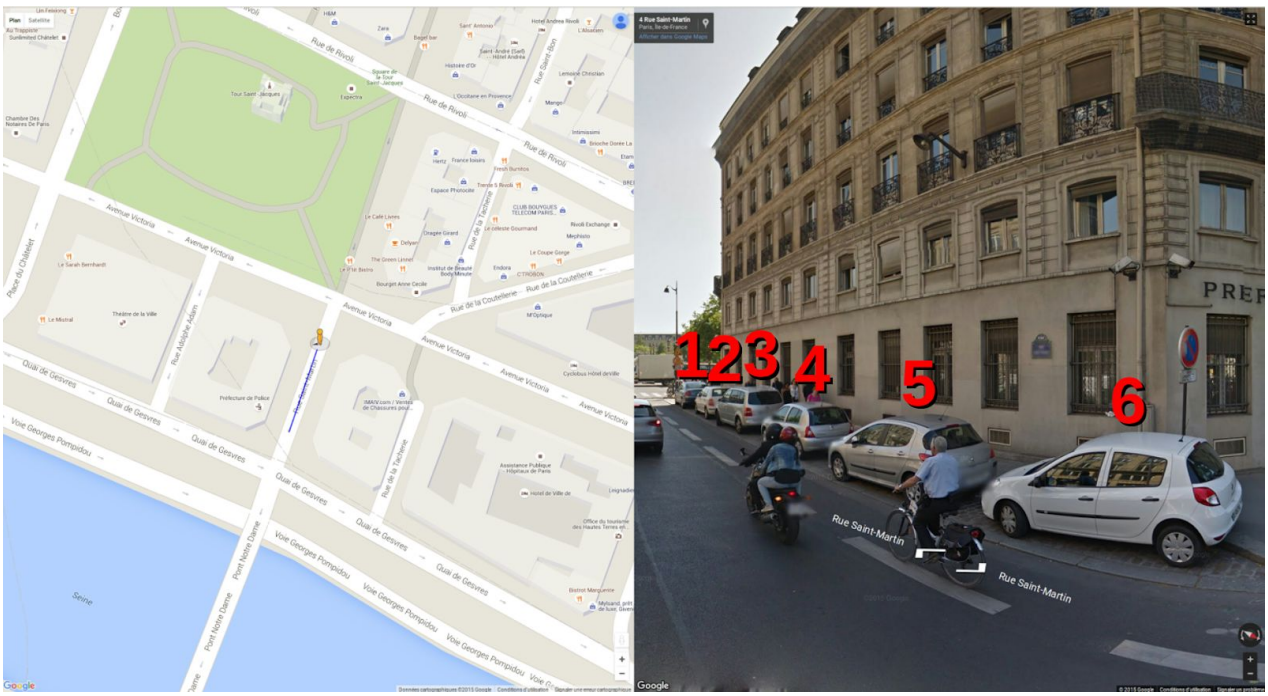
You will sometimes find parking spaces that are not delimited by short dashed white lines, as we have seen earlier. In this case, you will count the number of parking spaces.

In the following picture, you can find an example of parking spaces that are not delimited by short dashed white lines. On this section, you should count **4 parking spaces.**

The following picture is another example of parking spaces that are not delimited by short dashed white lines. In this picture, you should count also **4 parking spaces**:

The following picture is another example of parking spaces that are not delimited by short dashed white lines. There is space here for only one car. Therefore, you should count this as **1 parking space.**

In the following picture there is another example of parking spaces that are not delimited by short dashed white lines. In this case, you need to estimate a reasonable amount of cars that can be put in the parking space.



In this case, you should count **6 parking spaces** along the blue segment, and put this number under “Number of parking spaces”. BE CAREFUL! As you are counting parking spaces and not the short white lines, you put the number you find in the field “Number of parking spaces” and NOT in “Number of white dashed lines”.

Remember: When parking spaces for cars are NOT delimited by short white dashed lines, you should count the number parking spaces and put this number in the column “Number of parking spaces”.

The “Comments” column:

In case you have a doubt about the parking space (maybe you could find yourself in a situation that has not been shown here), write it in the “Comments” column. If you are in doubt, it is better to write something in the comment section that anything in the other sections.

- YOUR TASK -

Your first task will be to fill the spreadsheet until the last line: for each blue number, check the correct side to look the parking space, open the environment, count the number of places along the blue segment:

- if there are no parking spaces for cars along the blue segment, put a zero in “Number of parking spaces”.
- if there are parking spaces for cars along the blue segment delimited by a short dashed white line, count the number of short white lines and put the number in the column “Number of white dashed lines”.
- if there are parking spaces for cars along the blue segment which are not delimited by short white dashed lines, count the number of parking spaces and put this number in the column “Number of parking spaces”.

Now, continue counting the number of parking spaces by yourself until the end of the spreadsheet! This spreadsheet contains only a small sample of streets. When you have completed this test, we will send you longer versions.

When you finish filling in the spreadsheet, write to loic.letiran@apila.fr.

Thank you and good luck!