



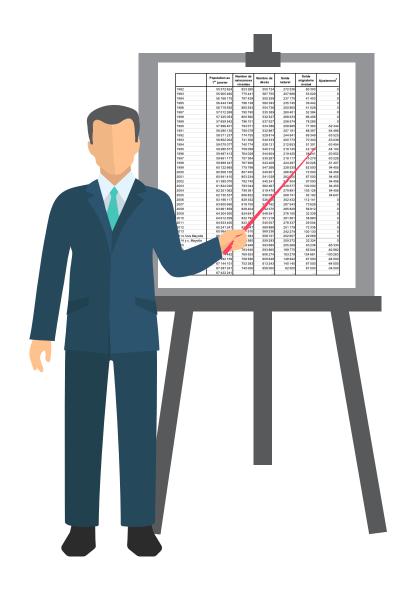
THE CONTEXT

CORRELATIONS AND HOSPITAL MANAGEMENT

You may have noticed hospital management is a HOT topic nowadays.

To handle more efficiently their material needs and their human resources, a large association of hospitals aims at predicting maternity occupation rates and put in place an alerting system to help decision-making.

Many factors could influence pregnancy and natality, from weather conditions to football results, through travel agencies activity. There are so many variables that could be taken into consideration, that the association decided to limit them to twitter hashtags at first.



DATASET

A data set (or dataset) is a collection of data. In the case of tabular data, a data set corresponds to one or more database tables, where every column of a table represents a particular variable, and each row corresponds to a given record of the data set in question.

free and confidential service aimed at providing comprehensive services. SSCORe Premoir Pharenthood Pspecialneeds Pparenting Pmotherhood Planily PASMSG FIARI FI ARTG Ppdf1 #Goodreads Pbook Pebook #KindleUnlimited https://t.co/zGure657E9 1154773435848643072 2019-07-26 17:20:16 +0100 <Cerinni> Mammas is onvervangbaar. # Phoe t.co/ehJcI/ypQy 1848538395858438464 2818-10-06 13:40:80 +0100 <DuisySheffMorth> d d@ #parenting #paren ternathealth #pregnancy (2/5) 288886657915531270 2020-07-00 17:29:11 +0100 <CoolDealCA> #Pregnancy Pillow for \$34.99 tingtheshitoutoflife #unsolicitedparentingadvice #ewelife #pregnant #pregnancy #daisytoundationsheffieldnorth https://t.co/j19kBtQVlo 1048530288422830273 2018-10-06 13:39:43 :0100 Pregnancy TT> Understanding the Risks of #Deat #ganga https://t.co//Pb2dZxsH4 https://t.co/ZyJHEhxidS 2008H6372161794848 2020-07-08 17:20:03 +0100 <MFetalHealth> What is #endometriosis and Life #Mom #Mum #Motherhood #MomBlogger https://t.co/aDMEXIOTEK 1154772961955590152 2019-07-26 17:18:23 +0100 <DiscolemonAid> Takeing twins to a 2 year now can it affect #pregnancy ?? https://t.co/zCKSSXYvIk https://t.co/weZCh1089Z 28685889267367936 2820-87-88 17:26:88 +8180 -MallelujahStudi> Ask se for perfect preg well check at Bam., rather have myperiod at a water park then to do that again! Led tes t, eyetest and fluoride all solo #twinlife #twinmom #motherhood mcy portrait 👩 Zsydneypregnancy Zpregnant Zpregnancy Zpregnancyshoot Zsydneyphotosho ZaZriii Zsonyalpha ZsonyBSxml8 Zsonyphotography ZsonyalphoZriii https://t.co/Cxov49 1154771367163813889 2019-07-26 17:12:83 +0100 <TinyDoodleShop> #motherhood #kidscare Lit tle Dreamer Fox T-shirt Top + Pants Outfits https://t.co/cPR0txzIYD 1154768336728412672 2019-07-26 17:00:00 +0100 <mlembarazo col> Tranquilo, te la va a dev 885018248777730 2020-07-08 17:22:40 +0100 <MtranParker> @DeltaChildren YOU WILL MEV GET YOUR ORDER. My order was placed Memorial Day, delivery was canceled TWICE, and comer service is unreachable. My baby is in the NICU and coming home in a few days. We is he poing to sleep? Amendorn Aprenancy Amendorn Aprenting Amursery 6884267715719175 2020-07-08 17:19:41:0100 genderequity4al> Access to ASRUM is essent for Amendorn Aprenancy Amendorn Aprenal Adecisions from Aprenal Amendor Am 1154767562451898177 2019-07-26 16:56:56 +0100 ≪amaronBrooks> Few things have brought ou r family more joy than planting a butterfly garden with drought tolerant plants # #mothe rhood #butterfly #garden #SanAntonio #Texas #SANS #mindful https://t.co/156zmWLXX4 1154767054563680256 2019-07-26 16:54:54 +0100 «KatyFerry» So I wrote a piece on @Medium. us to see what lasting impacts #COVID-19 responses will have on #birthdefects surve nce and what we know about how #viral infections affect #pregnancy. 🤌 I hope y'all will check it out, Gamp; if you like it, clap for it, or share it. It's a bt anxiety, motherhood, working Gamp; self-induced pressures. My Life Is So Good It's Bad https://t.co/sbulgFJXDE #anxiety #MentalHealthAwareness #motherhood 1154764631082229760 2019-07-26 16:45:17 +0100 <RezaCl> HATCH Roised \$5M For its Stylish ience with us? Please read below and get in touch, thank you mum #mumlife #Covid19 ockdown #baby #pregnant #pregnancy @nhsbame @BAMEedNetwork @PMHfamilies #PND http .co/YBShXap6t4 Approach to Motherhood That Celebs Love https://t.co/2fm75hosLD via @AlleyWatch #tech 82109763121154 2020-07-08 17:11:07 +0100 <GGHospital> Health Benefits of Mushroom! 1154763307942050560 2019-07-26 16:40:01 +0100 <kkupiecki> Motherhood is: Being sleep-dep Appointments, Call 044-28272675 / 9962229940 Visit us @ https://t.co/9uB0278P5G rived and still getting Media #monlife #mothe espital #Fertility #Pregnancy #Chennai https://t.co/8Cnrboo7Rn rhood https://t.co/rQ E_m 1.5 MB↓ 58 kB+ O 22% Pa 1.5 MB4 58 kB+ build strength for your #pregnancy and delivery from @fitpregnancy https://t.co ZMG0 https://t.co/dbpCG0TpDd tps://t.co/efG220myFq 671020852226297856 2015-11-29 18:40:12 +0100 <AlFatimaClinic> #alfatimaclinic #obg ttps://t.co/34xqQu4wCI 34649989123 2017-11-24 17:00:02 +0100 <mybabyway> Mothing like a #babyshower to 393116815 he whole #family together: https://t.co/vytJVbJ8YL #FriYaY #pregnancy #30weeks uring #P #pregnar ncylife 0450959361 2017-11-24 16:58:33 +0100 <Swag8abyDecor> Like and share! #momideas 991783 #portrait ncy https://t.co/mYjl67YLdB rtrai 7541571584 2017-11-24 16:55:29 +0100 <GioBellaMerch> Womens Mama Bird T-Shirt M 803537535922118656 2016-11-29 other Grey https://t.co/whyb8gDCeD #momlife #Motherhood #mamabird #mother #pre pirds #momsrock #loveit https://t.co/9LLgCfeoya Mormal - The Truth About Postpartum Urinary Incontinence https://t.co/5zXXuCunIp #pregn ancy #fitness 071090176 2017-11-24 16:54:16 +0100 ortlesoup> Yayy! #pregnancy #babies #cel 803534970677391361 2016-11-29 10:44:00 +0100 <Talking mums> My journey to parenthood! Li cy https://t.co/C6u9cXq9KD nked up with #EatSleepBlogRT https://t.co/r25AfxpRne thanks @petite pudding @animoerfec

To make my datasets from the Twitter feed I had to use a scraper.

But what is a scraper?

a Plus-Size Pregnancy /Pregnancy https://t.co/p06g186n9g 1848537972784726017 2018-10-06 13:38:28 +0100 </www.duspScrap> "When I met hubby he made t no secret he would like three children.* https://t.co/c078380069 #Gender #Pregnancy https://t.co/IEbl8Ahf2a 1948537409783483528 2818-10-86 13:36:14 +8180 <InEOPY> スタバでスルーされた。なぜだろう。 ハラスメントなのか? スタハラか? でもイケメン +だったから許す。また行きます。 #元 気 #笑顔 #日記 #イラスト #落貫き #イケメン #art #arts #illustration #inkprinting ##か #家族 #happy #子育で #出来 #思い出 #pregnancy #starbucks #スタパ #未来 https://t.c LGGbSFR9X5 1048537281164992513 2018-10-06 13:35:43 +0100 <matteolambe> Terrific talk of my great iend Hatem at #BCYlugano on biology of #BreastCancer in young patients and on the very ecent data published by @bastien_nguyen and @c_sotiriou on the impact of #pregnancy (ortant work supported by @BCRFcure) #bcsm https://t.co/xabGeqCBCl 1848537123798491648 2018-18-06 13:35:05 +0100 <Treasure E M- PREGMANCY #2: Tips for S iving the First Trimester - looking after a toddler while in those early months of pr ancy is such a difficult time. These are my ways to make it easier... https://t.co/ 0jnu3M #pbloggers #pregnancy https://t.co/b0xJf4cVme 104053676637707078786 2018-10-06 13:33:48 +0100 <0Cerebusfire17> Sorry I haven't tweet or is it twated???) too much. I just found out I'm pregnant last Sunday and I've bee my head preparing for having the chance to be a mother again :) #mommytobe #pregnan regnancy #RainbowGaby https://t.co/kDuILr4SoV 1048536894176768801 2018-10-86 13:31:80 +8180 <hems18Guj> ਵੇਲੇ ਐਈ. એ મહિલા, અન્ય દેખન ર પોતાની કુખ્યાબાંચવાનને રાખે છે https://t.co/7TVQog)7E6 #pregnancy #motherhood twint -s "#pregnancy" -- since "2015-01-01" -- year 2016 -o pregnancy 2015. □ 22% -8. 15 MB4

dy #doctor #specialist #matermityhome #karachi #Walkin #Pregnancy #Matermity #Labo tps://t.co/b8cHypygAK 671020851949531136 2015-11-29 18:40:12 +0100 <AlfatimaClinic> #alfatimaclinic #ob by #doctor #specialist #maternityhome #karachi #Walkin #Pregnancy #Maternity #Lab tps://t.co/zlj07dK59h 671020851689492480 2015-11-29 18:40:12 +0100 <AlfatimaClinic> #alfatimaClinic #ot

dy #doctor #specialist #maternityhome #karachi #Walkin #Pregnancy #Maternity #Lal tps://t.co/90htE70gYd

671020050770907136 2015-11-29 18:40:12 +0100 <A\Fatimaclinic> #alfatimaclinic #o

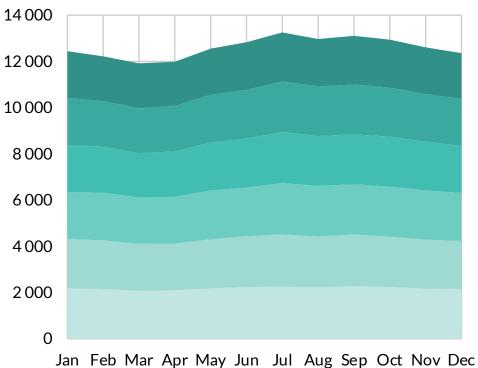


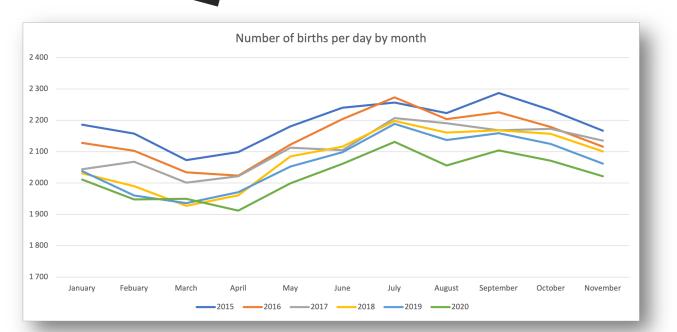
SCRAPER

Web scraping, web harvesting, or web data extraction is data scraping used for extracting data from websites. The web scraping software may directly access the World Wide Web using the Hypertext Transfer Protocol or a web browser.

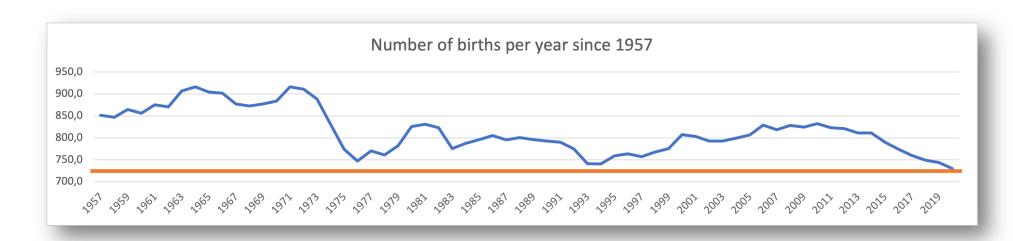
DATA VISUALIZATION

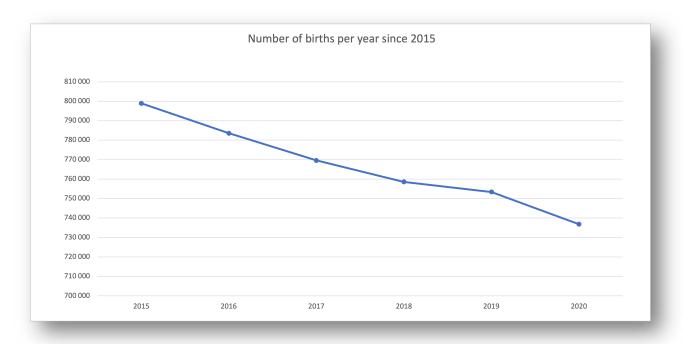
Data visualization is the graphical representation of information and data. By using visual elements like charts, graphs, and maps, data visualization tools provide an accessible way to see and understand trends, outliers, and patterns in data.





EVOLUTION OF NUMBER OF BIRTHS

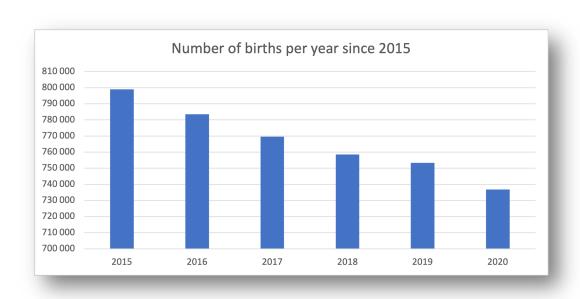


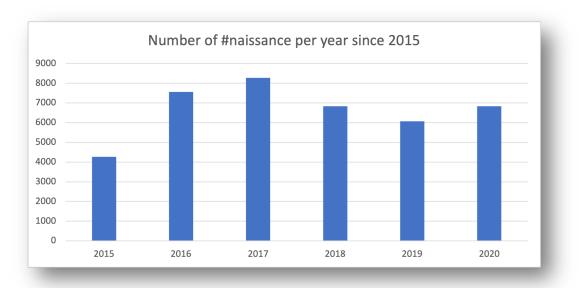


EVOLUTION OF NUMBER OF BIRTHS

	Since	Since	From 2014	From 2015	From 2016	From 2017	From 2018	From 2019
	1957	2015	to 2015	to 2016	to 2017	to 2018	to 2019	to 2020
Taux de Diminution des naissances	-14%	-8%	-2%	-1%	-1%	-2%	-2%	-3%

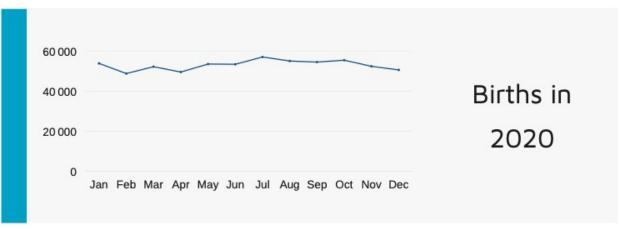
REALITY VS. TWITTER

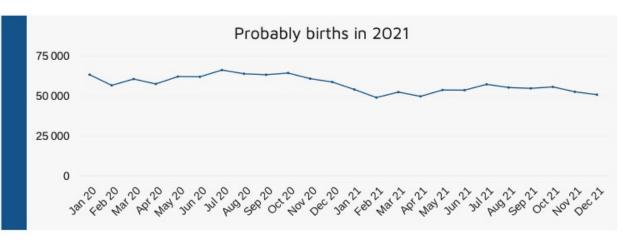




KPI DASHBOARD







SOURCES

Here are all the sources that helped me in my research to establish my case study

Bilan démographique 2020

https://www.insee.fr/fr/statistiques/5012724#figure2_radio2

Naissances et taux de natalité

https://www.insee.fr/fr/statistiques/2381380#tableau-figure1

Décalage du pic de naissance

https://www.insee.fr/fr/statistiques/4655279#graphique-figure1

Infos juillet 2019

https://www.lefigaro.fr/actualite-france/les-infos-qu-il-faut-

retenir-du-mois-de-juillet-20190802

Bilan démographique 2016

https://www.insee.fr/fr/statistiques/2554860





DASH-BOARD

Here is the dashboard imagined to help maternity services during the waves of deliveries

DASHBOARD DEVELOPEMENT







THANKS FOR YOUR ATTENTION