

## A large graphic of a human head silhouette, facing left, filled with a dense collection of small, stylized icons. The icons represent various fields of study and concepts: science (microscope, DNA helix, atom, globe), technology (laptop, smartphone, tablet), music (musical notes, guitar), sports (bicycle, running shoe), and general education (books, graduation cap, lightbulb, puzzle pieces). The icons are primarily in shades of gray, with some in green and orange. The background consists of horizontal stripes in white, light gray, and dark gray. The bottom of the image features a solid orange shape that resembles a stylized landscape or a base for the head silhouette.

# SADAIA BOOTCAMP T5

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Design Introduction



# Introduction



## Introduction



Education constitutes a significant and critical factor in human resources development, increasing people knowledge and competencies, and ensuring nation economic prosperity. The main objective of education institute and one of its biggest challenges is to provide quality education to its students.

## Goal



This project is aimed for answer the below Questions:

- What the expected students Graduate?
- How the Increasing students Number by gender (Female, Male )?

# DATA SOURCES

From the Dataset I have  
15 Features  
11522 Observations

	Code	First Name	Last Name	Father Name	Mother Name	Gender	Nationality	Birth Date	Level	City	ID	Joining Day	Joining Month	Joining Year	Current Class
0	66795	أمونة	ابو عون	عبد الرزاق	فاطمة	Female	سعودي	2009-08-03	Primary	ميسان	Najah 10	5	6	2019	خامس ابتدائي
1	66472	ابراهيم	جبري	محمد	مريم	Male	أردني	2007-06-14	Preparatory	العيص	Najah 22	14	12	2019	أول إعدادي
2	66591	عطا الله	عبد الله	صبيحي	فاطمة	Male	سعودي	1999-02-28	High school	الرياض	Najah 41	20	7	2019	تخرج
3	66473	رياض	شيخ	احمد	فطوم	Male	لبناني	2004-04-12	High school	نار	Najah 30	19	7	2018	أول ثانوي
4	66365	تركية	كفا	صبيحي	عيدة	Female	خليجي	2009-07-05	Primary	عرعر	Najah 08	21	2	2018	خامس ابتدائي
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
11517	77843	فتحية	عائش	ارشيد ابازيد	سعيد	Female	سعودي	2006-09-27	Preparatory	الملج	Najah 20	25	1	2019	ثاني إعدادي
11518	77844	لطيفة	زبيدة	الصرما	معروف	Female	مصري	2006-07-28	Preparatory	السليل	Najah 16	26	3	2019	ثاني إعدادي
11519	77845	ناهدة	رمزية	عبدى	خيرو	Female	سوري	2001-05-13	High school	بارق	Najah 38	11	1	2018	تخرج
11520	77846	حسية	عسكرية	كوكة	عطية	Female	خليجي	2006-08-11	Preparatory	بقيق	Najah 18	18	11	2019	ثاني إعدادي
11521	77847	فاطمة	رفعة	عبدالقادر	عمرو	Female	سعودي	2003-05-24	High school	ابو عريش	Najah 35	22	7	2018	ثاني ثانوي

# Summary



- We predicting that 569 Student will be graduate in 2020 to be prepare a sets for University.
- The numbers of female start increasing to reach the highest number of females in 2018 than 2017 by 1818.
- The numbers of Male start increasing to reach the highest number of male in 2018 than 2017 by 805



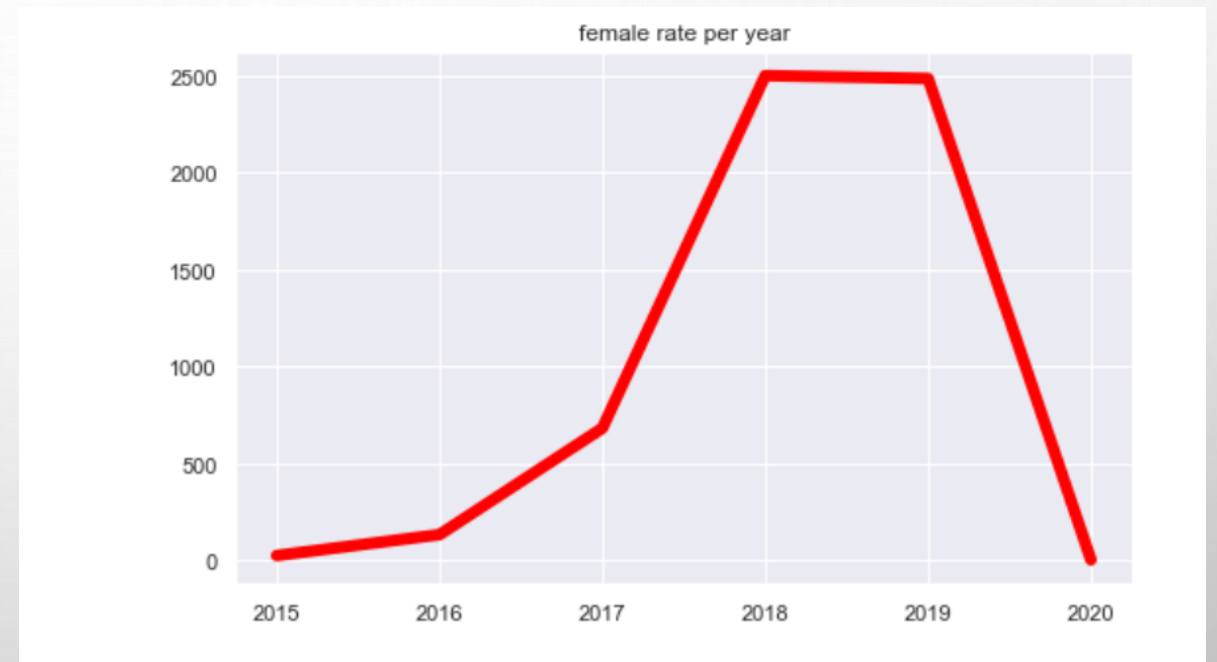
# PREDICTING THE INCREASING STUDENT'S NUMBER (FEMALE )

The numbers of female start increasing to reach the highest number of females in 2018 & 2019

then in 2020 the line fall down to 5835 female

the number of female is increasing by years

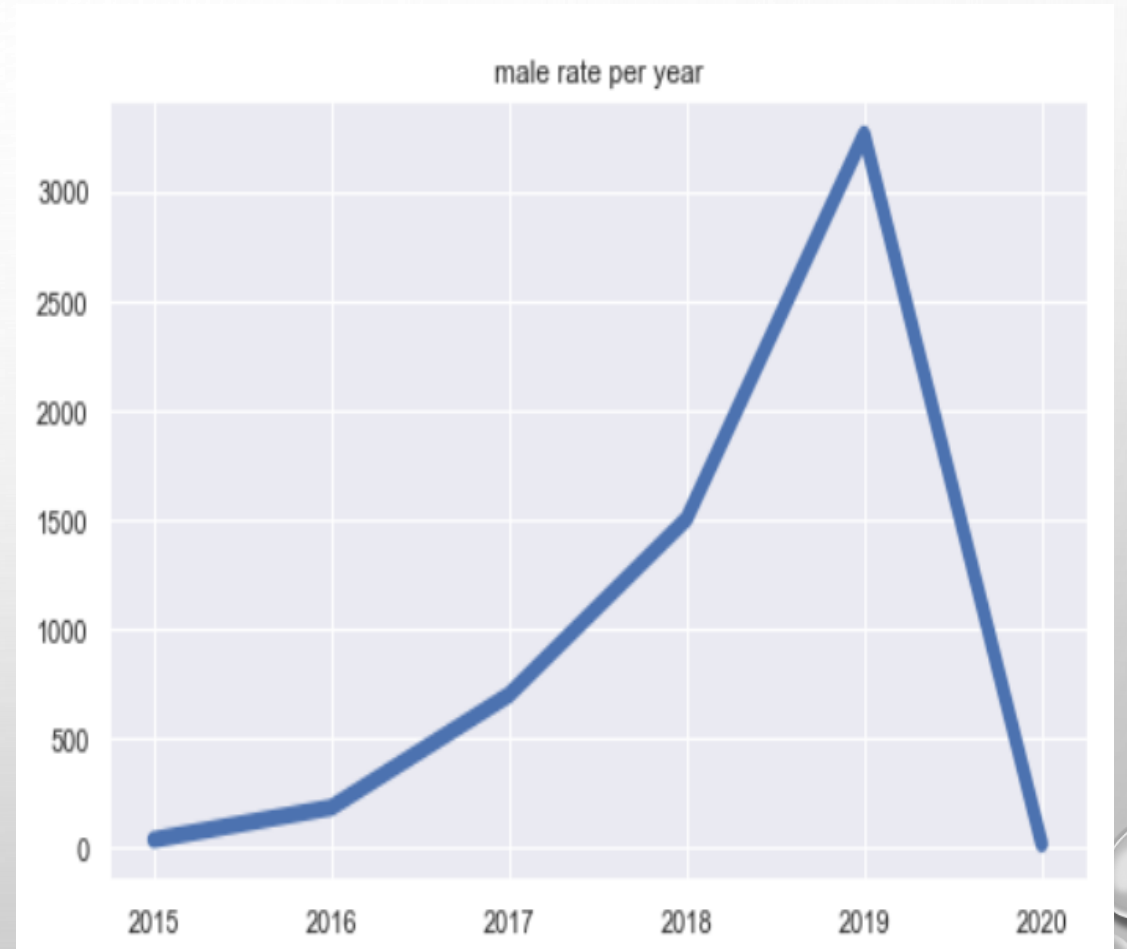
because the condition of COVID 19



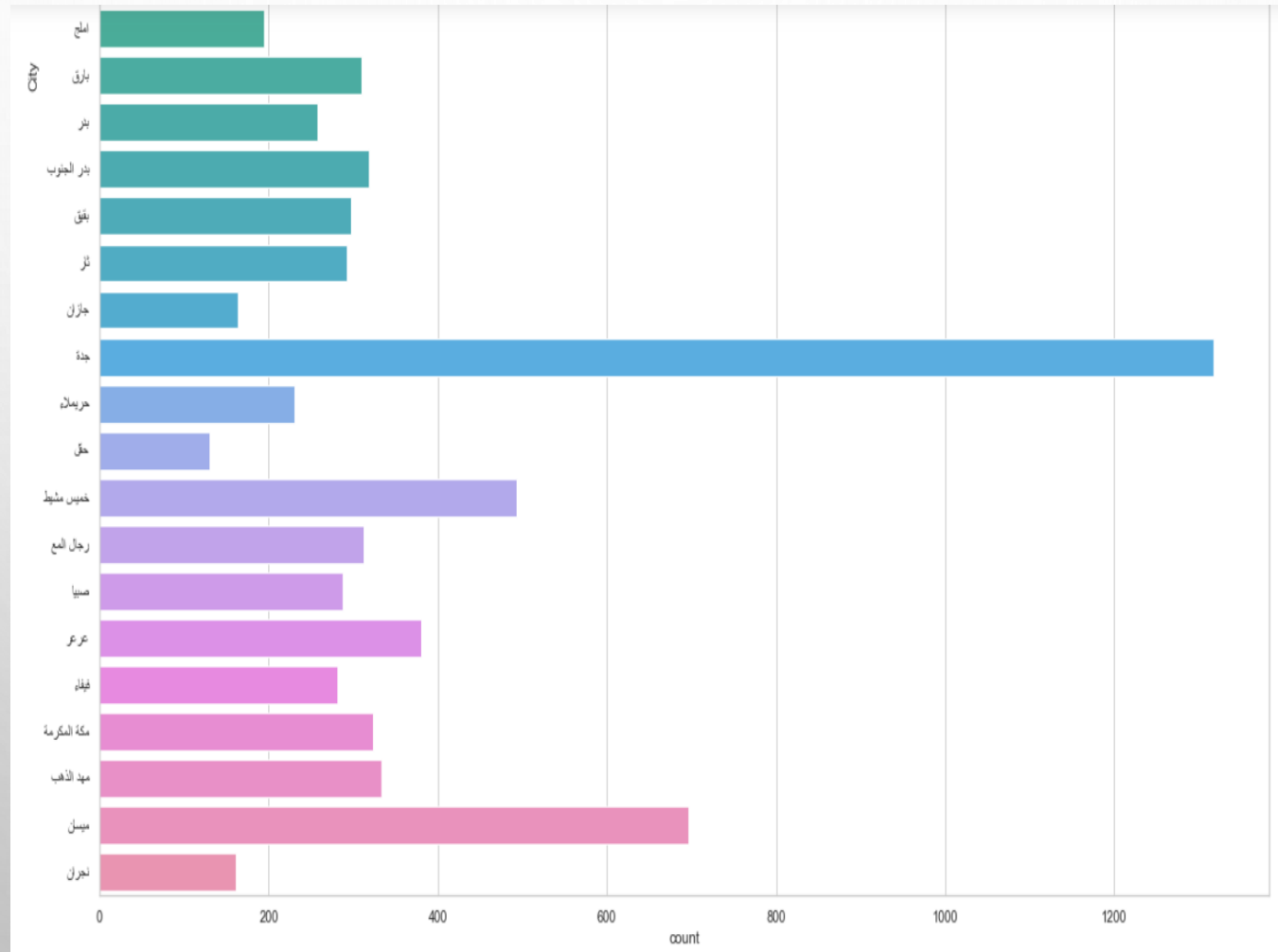
# PREDICTING THE INCREASING STUDENT'S NUMBER (MALE )

The numbers of Male start increasing to reach the highest number of Male in 2019 then in 2020 the line fall down to 5689 male the number of male is increasing by years

because the condition of COVID 19



# STUDENTS NUMBER PER CITY





# Algorithms

In the Project we have been used many Algorithms models for training , Validated and testing the score model performance.

- Linear Regression validation Score **100%** .
- Ridge Regression validation Score **100%**.
- Degree polynomial Regression validation Score **100%**.
- Linear Regression Test Score **100%**.
- Decision Tree Score **100%**.
- Random Forest Score **100%**.

# TOOLS

- `Jupyter Notebook.`
- `Panda & Numpy library.`
- `Matplotlib.pyplot.Linear & seaborn.`
- `Sklearn.linear_model`
- `Sklearn.model_selection`
- `Sklearn.preprocessing.`
- `Sklearn.tree.`
- `sklearn.ensemble..`