



# TECNOLÓGICO NACIONAL DE MÉXICO INSTITUTO TECNOLÓGICO DE TIJUANA

#### **CARRERA**:

INGENIERÍA EN SISTEMAS COMPUTACIONALES

PERIODO:

FEBRERO - JULIO 2021

## **ASIGNATURA:**

MINERÍA DE DATOS

**UNIDAD 1** 

TRABAJO:

**EXAMEN** 

#### **ALUMNOS:**

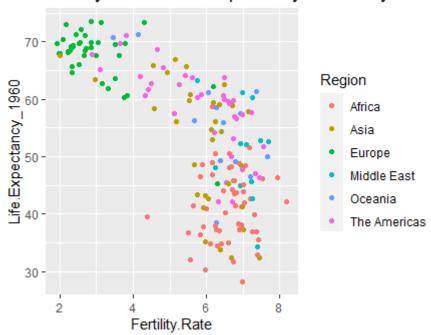
OJEDA SANCHEZ JHOVANA ANDREA #15211334 OLIVER CARDENAS JESÚS ALEJANDRO #16210561

#### PROFESOR:

JOSÉ CRISTIAN ROMERO HERNÁNDEZ

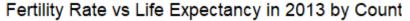
The results can be seen in the following graphs:

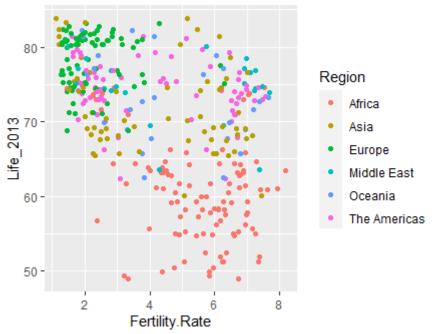
### Fertility Rate vs Life Expectancy in 1960 by Count



As we can see in the graph of 1960, powerful countries with good living conditions like the European countries, fertility rate (births) is low while life expectancy is the highest; On the other hand, countries with poor living conditions, such as the African region, on the contrary, have many births but these individuals have a shorter average life.

In the Americas region we see a more equitable distribution of countries where all their countries are scattered across the graph; With these results we can infer that the lower life expectancy there is generally more the birth rate (inversely proportional relationship). To discover the specific reasons for this, more information is probably required.





In 2013 we see a thick distribution in the graph, life expectancy is high and the vast majority of countries are in the upper part of this expectation, except for Africa, which is in the lower part, perhaps due to the poor living conditions in that region . The regions with the best life expectancy and the lowest fertility are Europe, Asia and America.

Comparing the results of both graphs we conclude that:

- 1. Through the years the level of life expectancy rose
- 2. More countries join the higher life expectancy, which could mean the improvement of their living conditions
- 3. The African region is still in the worst conditions with high fertility but low life expectancy, their living conditions have not changed much since the first data collection
- 4. In 1960 there was a fairly closed distribution of countries in question to their fertility and life expectancy, in 2013 this definition was wide distributing fertility but improving life expectancy
- 5. As a note, Africa did improve its life expectancy but remained the region with the lowest for its year.