# **Artificial Intelligence and Machine Learning Fundamentals**

**Activity 5**: Predicting Population

You are working at the government office of Metropolis, trying to forecast the need for elementary school capacity. Your task is to figure out a 2025 and 2030 prediction for the number of children starting elementary school. The past data is as follows:



Plot these tendencies on a two-dimensional chart. To do this, you must:

1. Use linear regression. Features are the years ranging from 2001 to 2018. For simplicity, we can indicate 2001 as year 1, and 2018 as year 18.
2. Use np.polyfit to determine the coefficients of the regression line.
3. Plot the results using matplotlib.pyplot to determine future tendencies.