1. Import the required Python modules: NumPy, Matplotlib, and SciPy's optimization library.
2. Define input data as arrays t ( time) and u (voltage across a capacitor)
3. Define the model function that will fit the data. The expon\_func function has an exponential trend, and takes as input the time variable t and parameters A and B. The function returns the output variable UC that represents the voltage across a capacitor in an RLC circuit.
   1. 
4. Fit the model function to the data using curve\_fit from SciPy's optimization library. The curve\_fit function optimizes the values of the parameters to minimize the difference between the model function and the data points. The initial guess for the parameters p0 is set to (12, 0.05).
   1. The p0 parameter is set to (12, 0.05), which specifies an initial guess of A = 12, B = 0.05. These values are chosen based on a visual inspection of the data.
   2. 
5. Send the acquired data back to the expon\_func to calculate the best fit for Uc(t)
6. Plots the given points and the best fit.
7. Calculate RC
8. Prints RC value.

Chart, line chart

Description automatically generated

After comparing the data points and the fitted function it is accurate.

RC value