**Pick optimal number of parameters for unsupervised learning :**

**→ AIC/BIC as a guide to pick the number of parameters in a model .**

**→ When we are trying to fit something to our model so how we know that which number of clusters it’s want like two clusters or three clusters .**

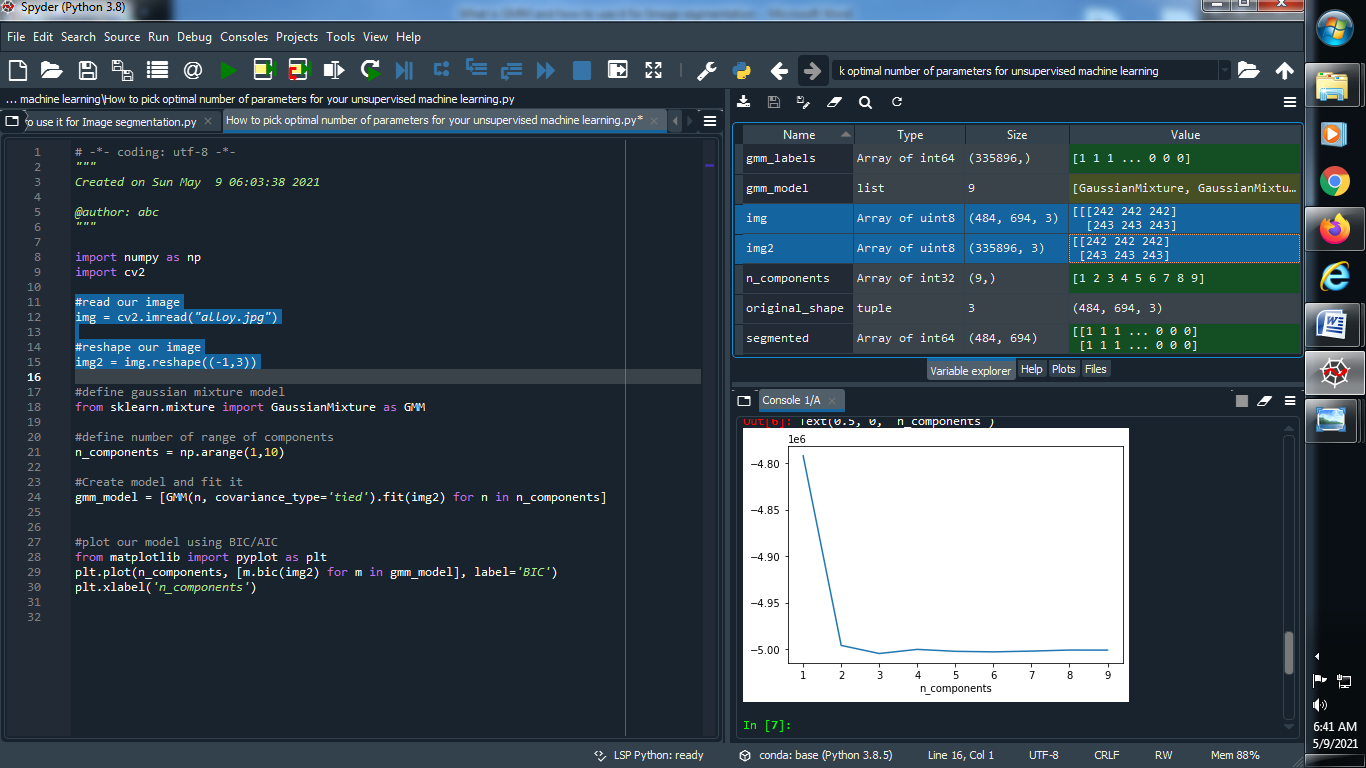
**→ In the images it is easy to find clusters.**

**→ AIC means A Key Information Criteria .**

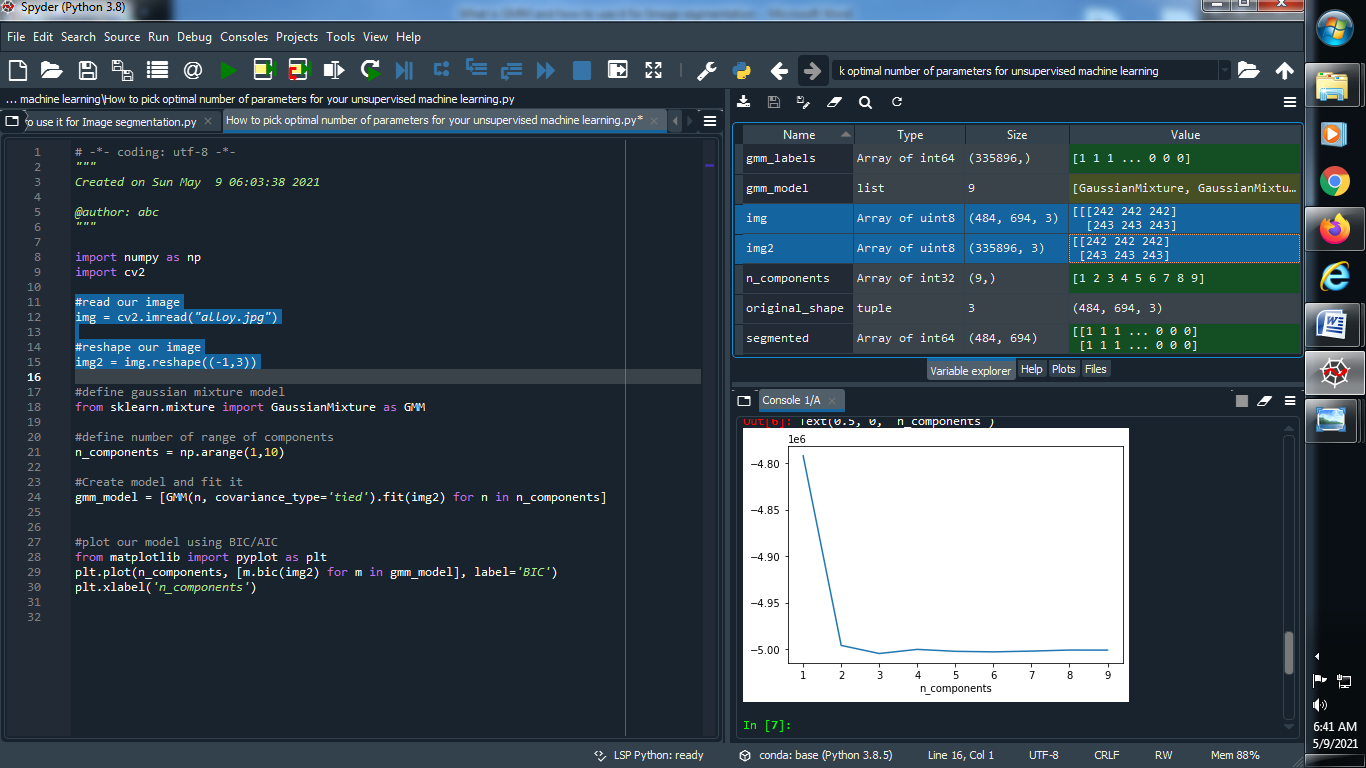
**→ BIC means Be Easy Information Criteria .**

**→ This two criteria is very helpful to find number of parameters .**

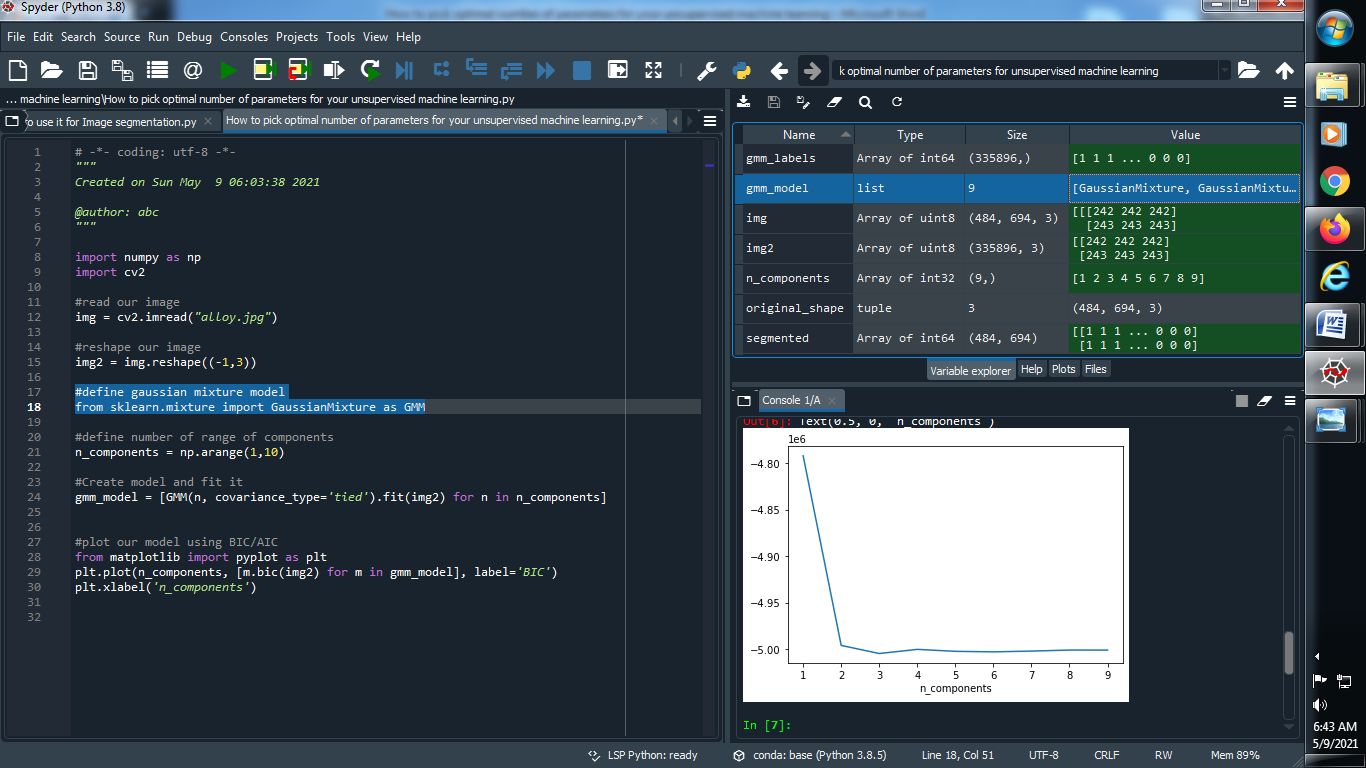
**(1) Read our image and reshape it .**

****

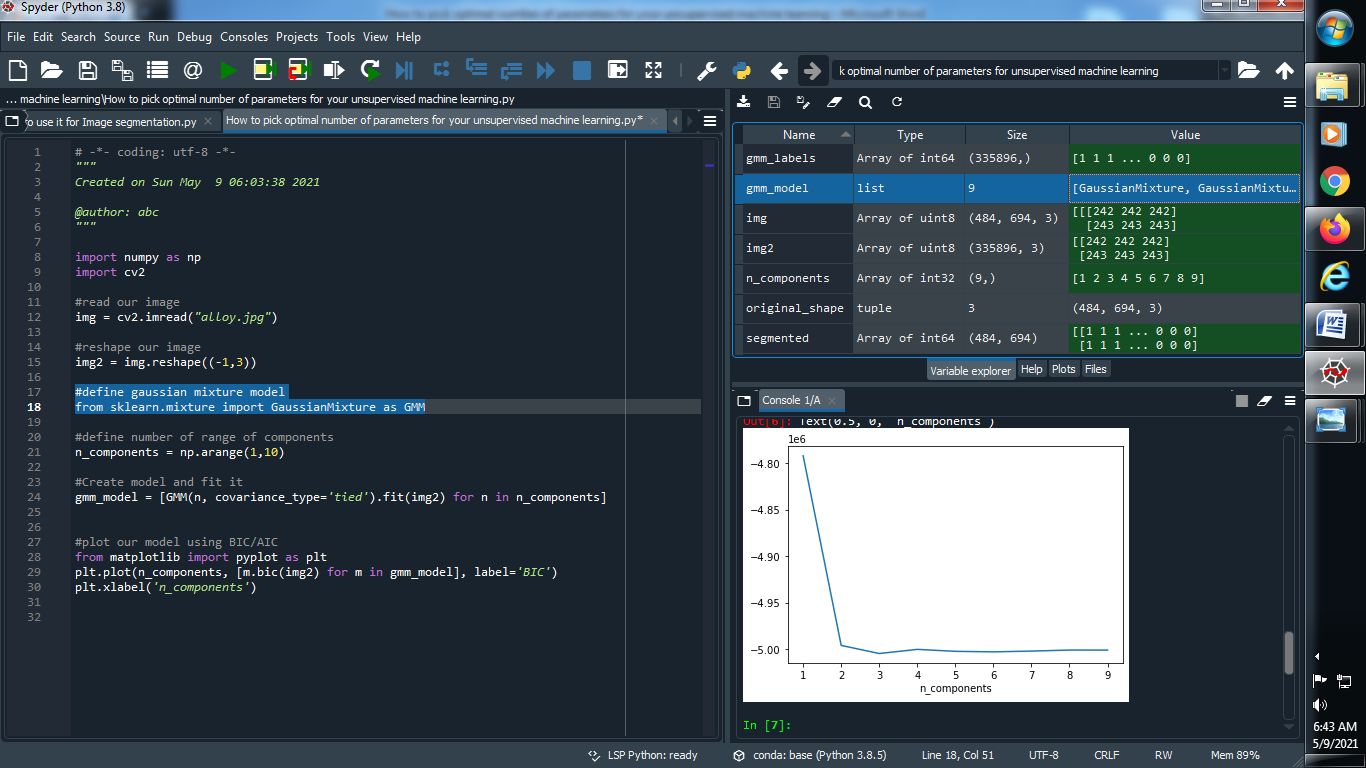
**Output :**

****

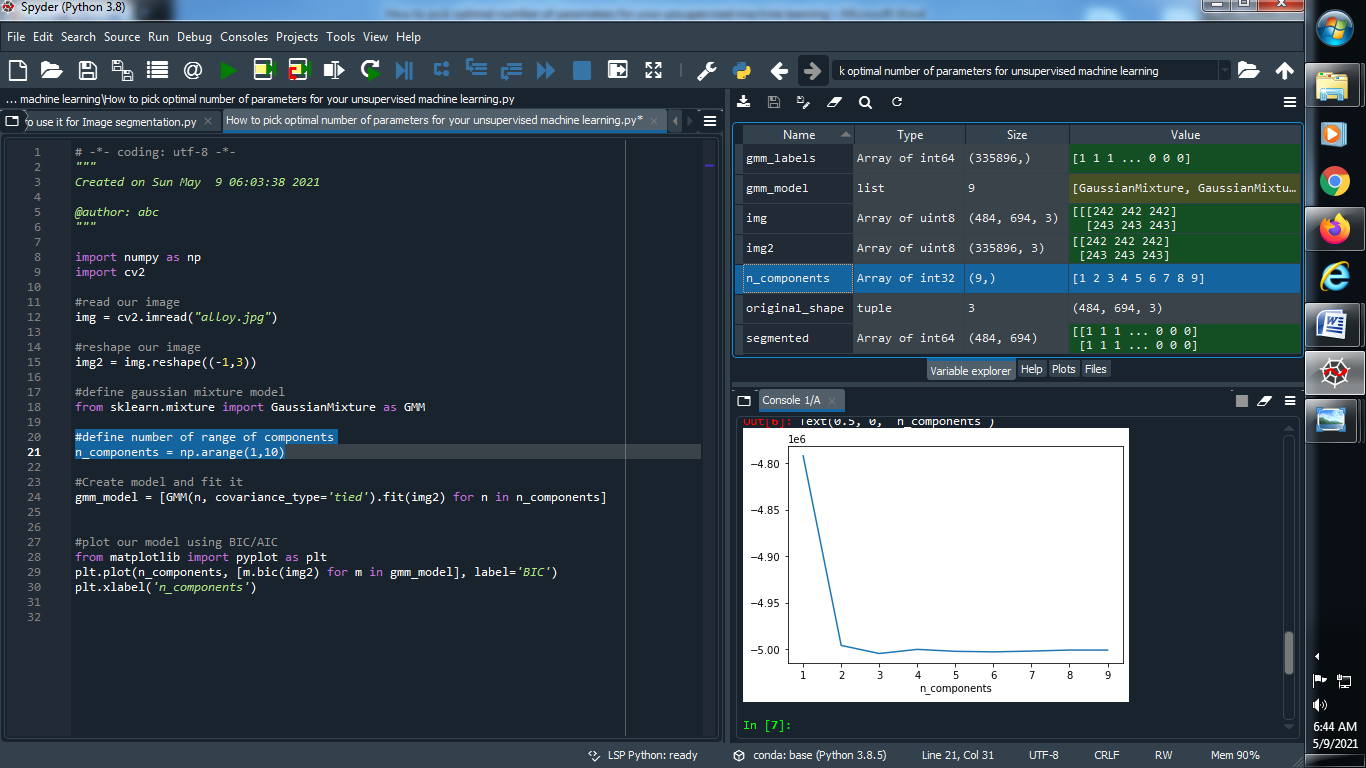
**(2) Define Gaussian model :**

****

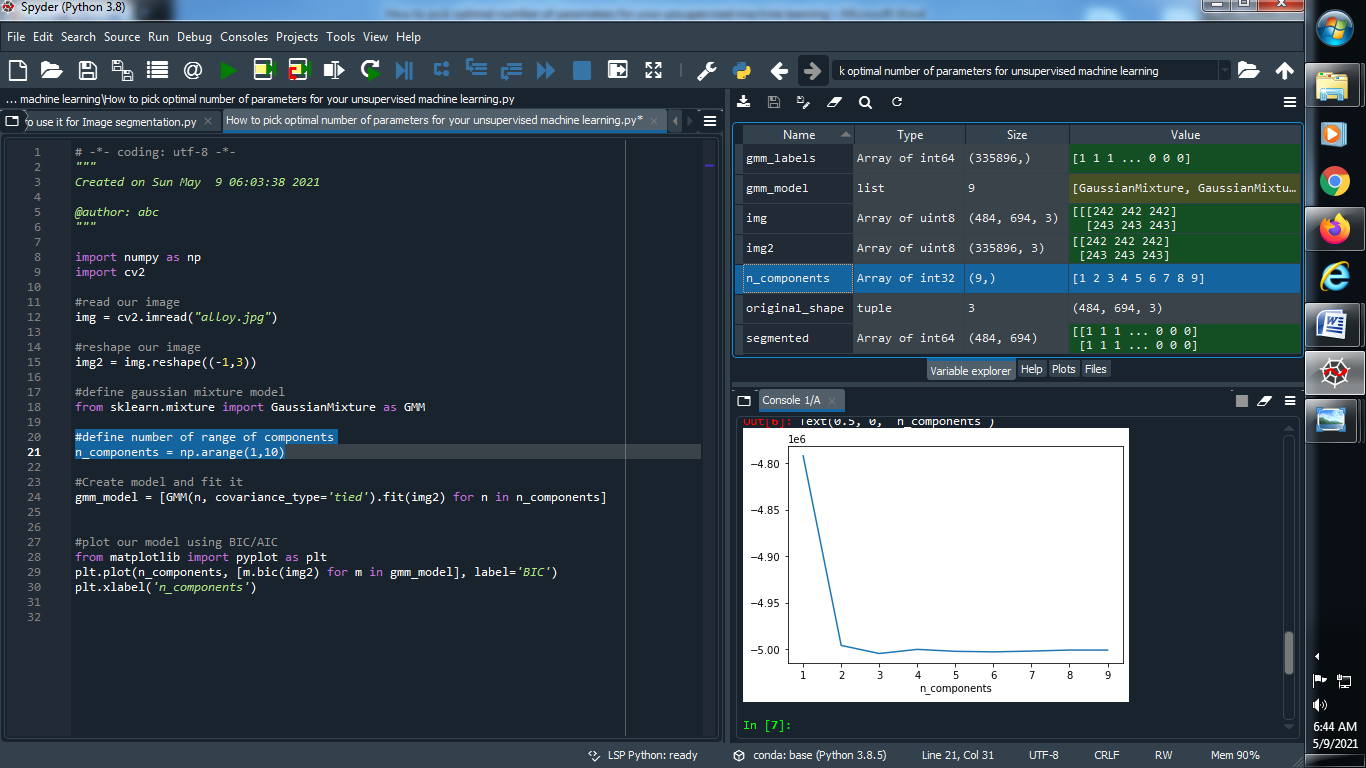
**Output :**

****

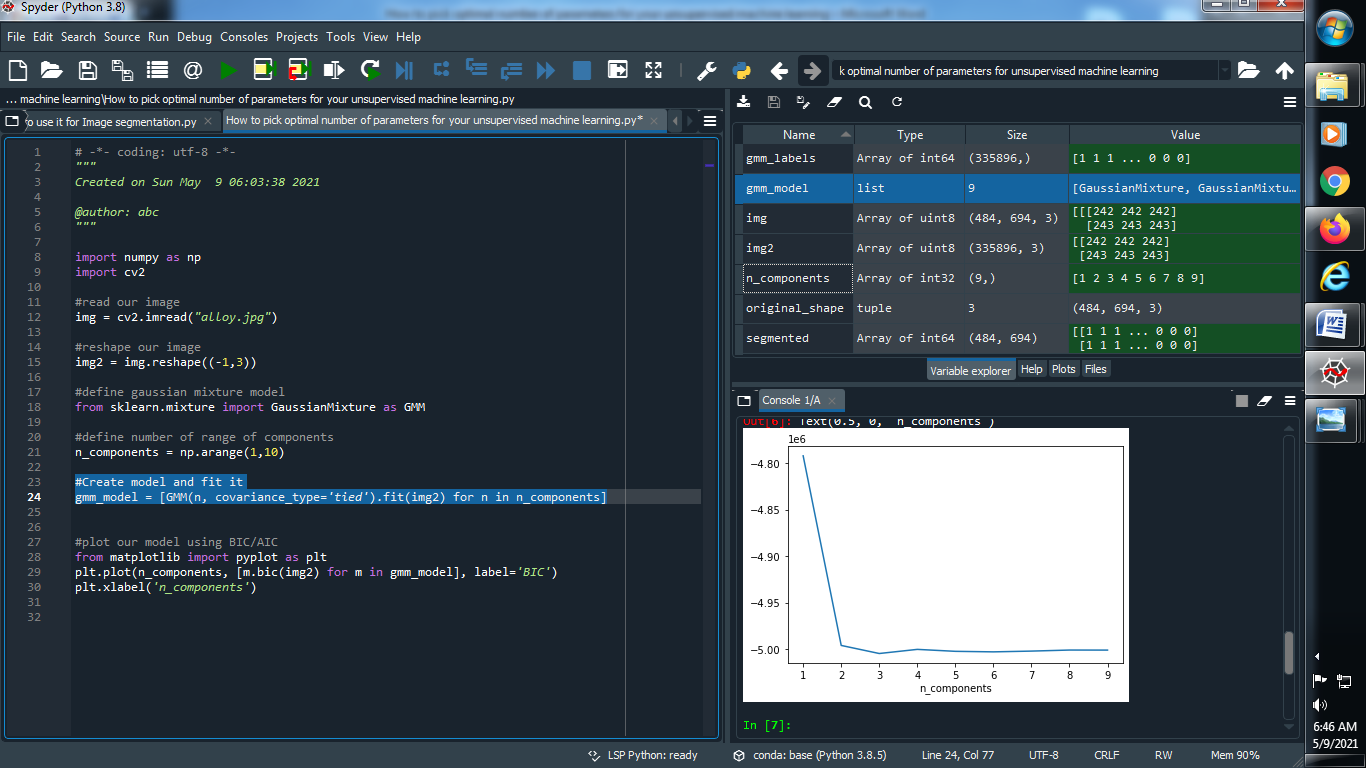
**(3) Define a range of number of components :**

****

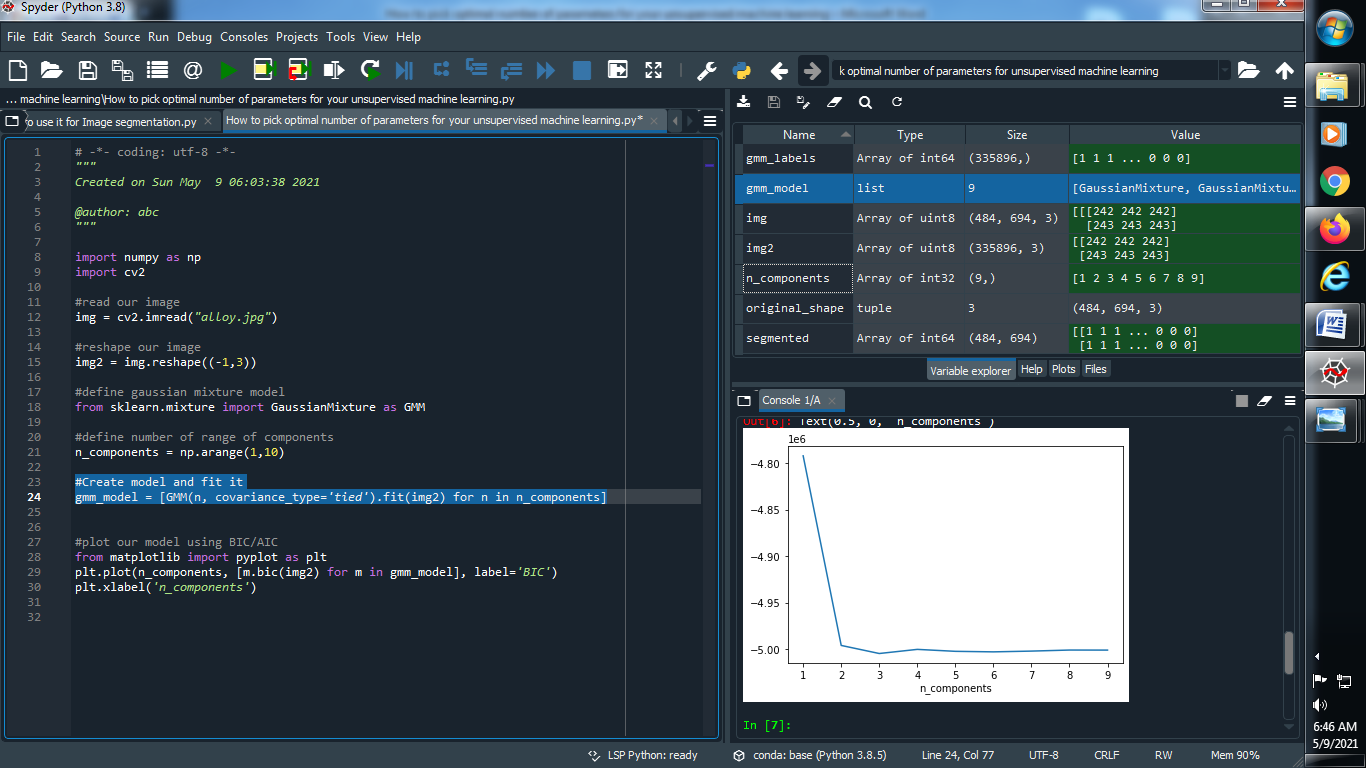
**Output :**

****

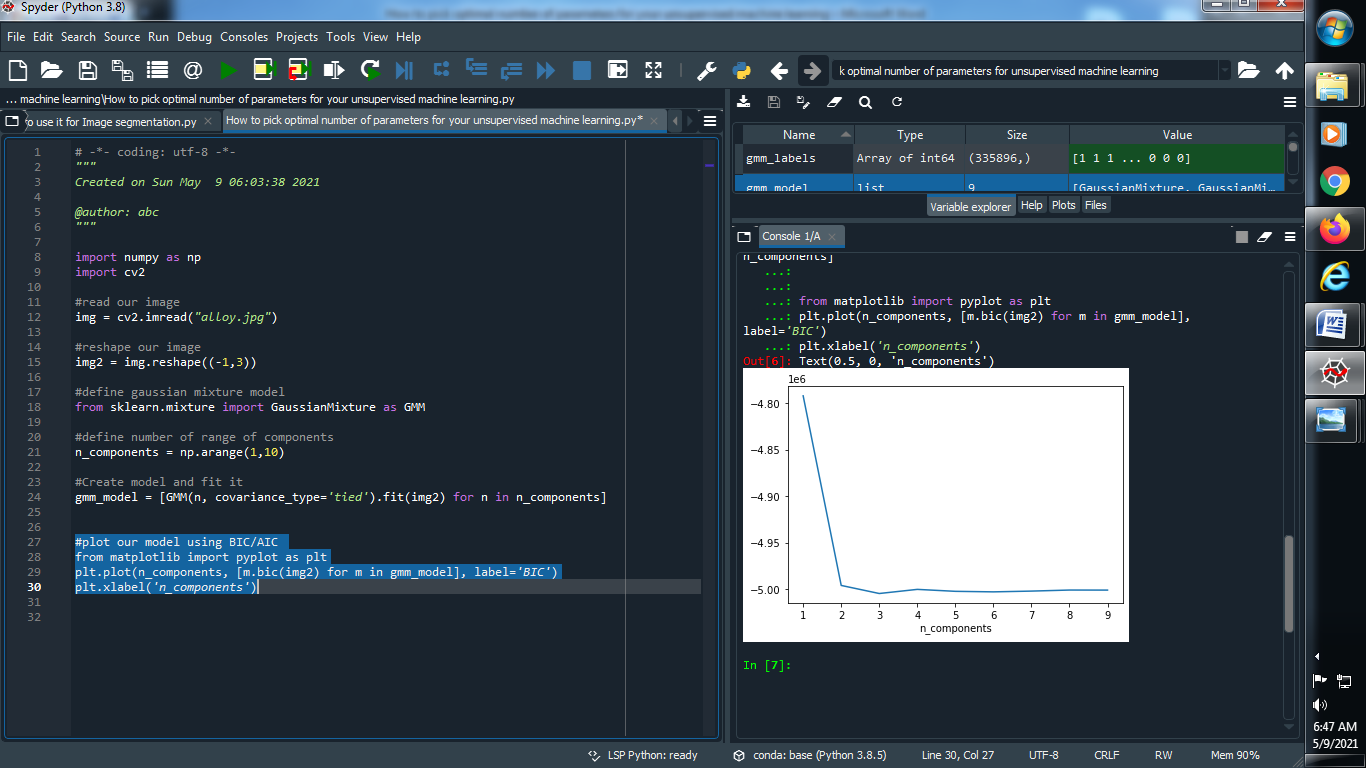
**(4) Create a model and fit it :**

****

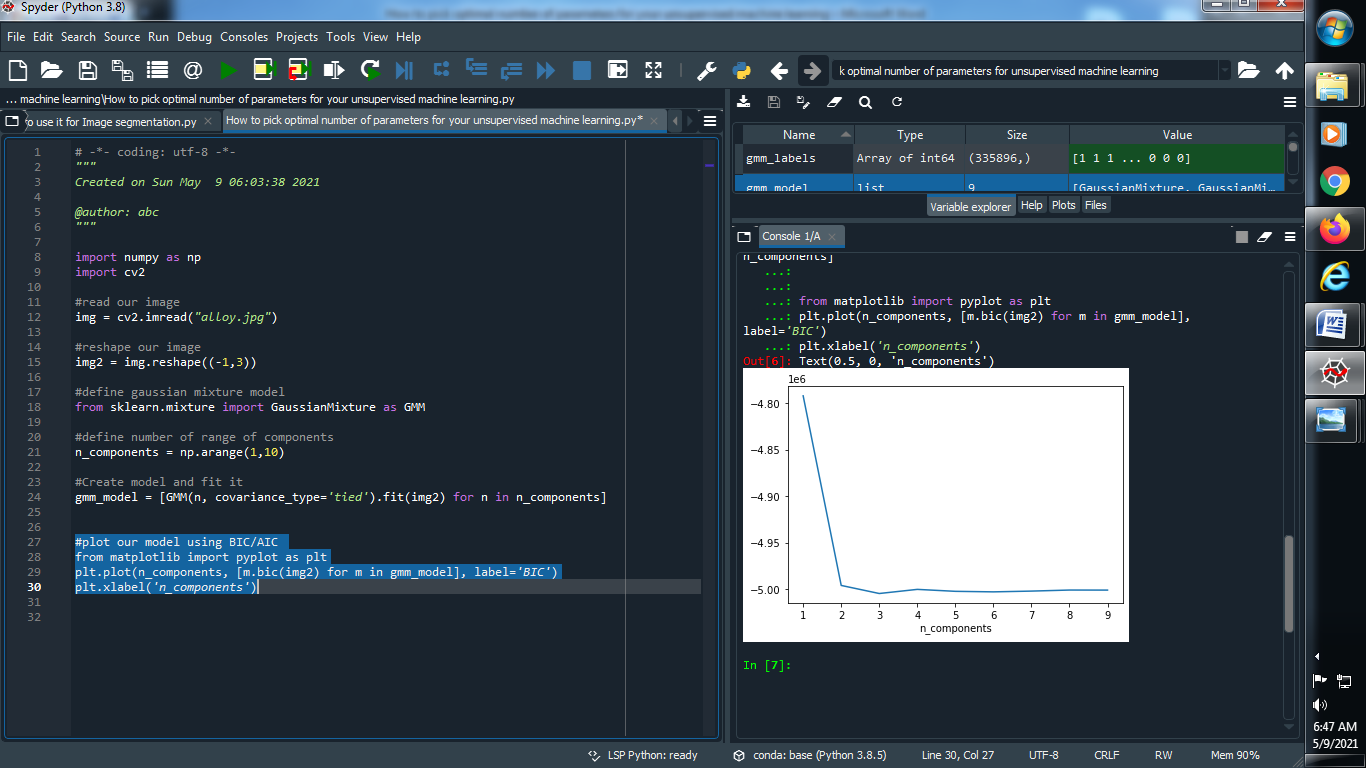
**Output :**

****

**(5) Plot our model using AIC/BIC :**

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**Output :**

****