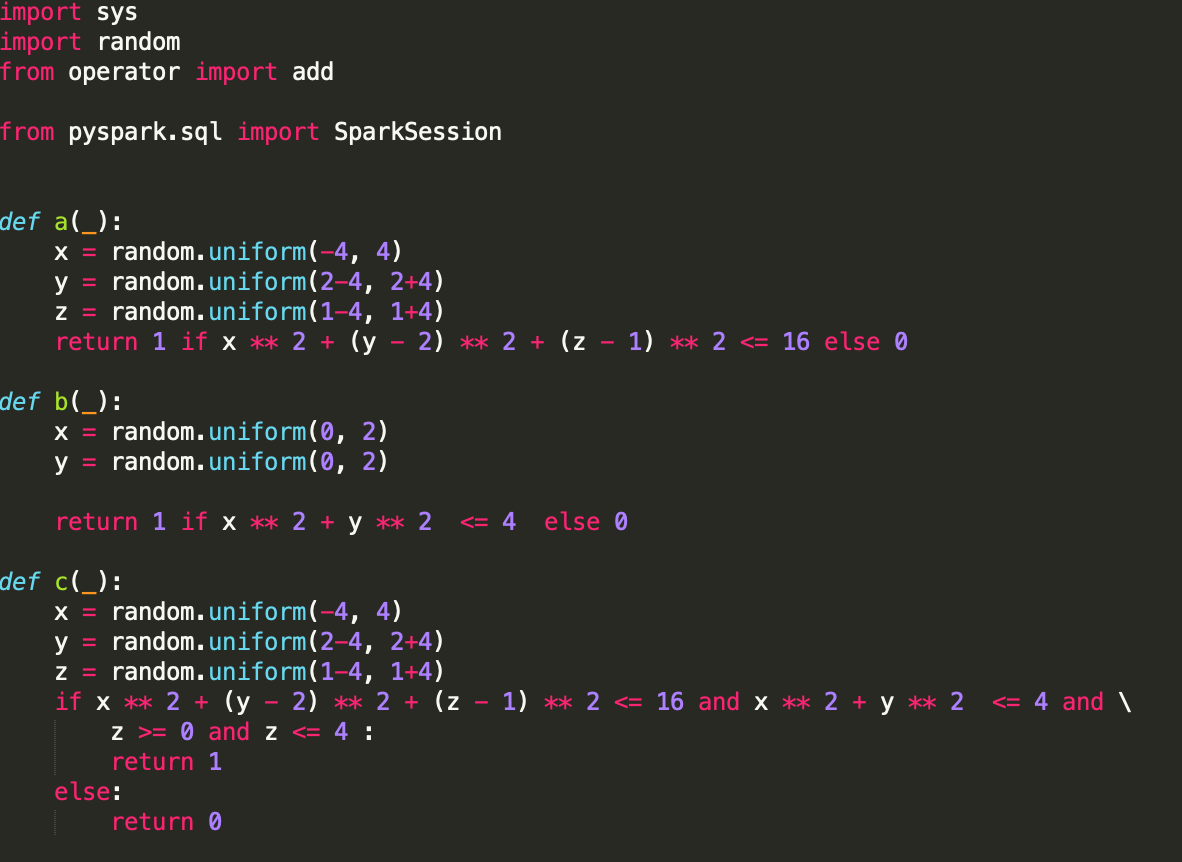
**Q1**

**First approach:**

**Code:**

****

****

**Output is :**

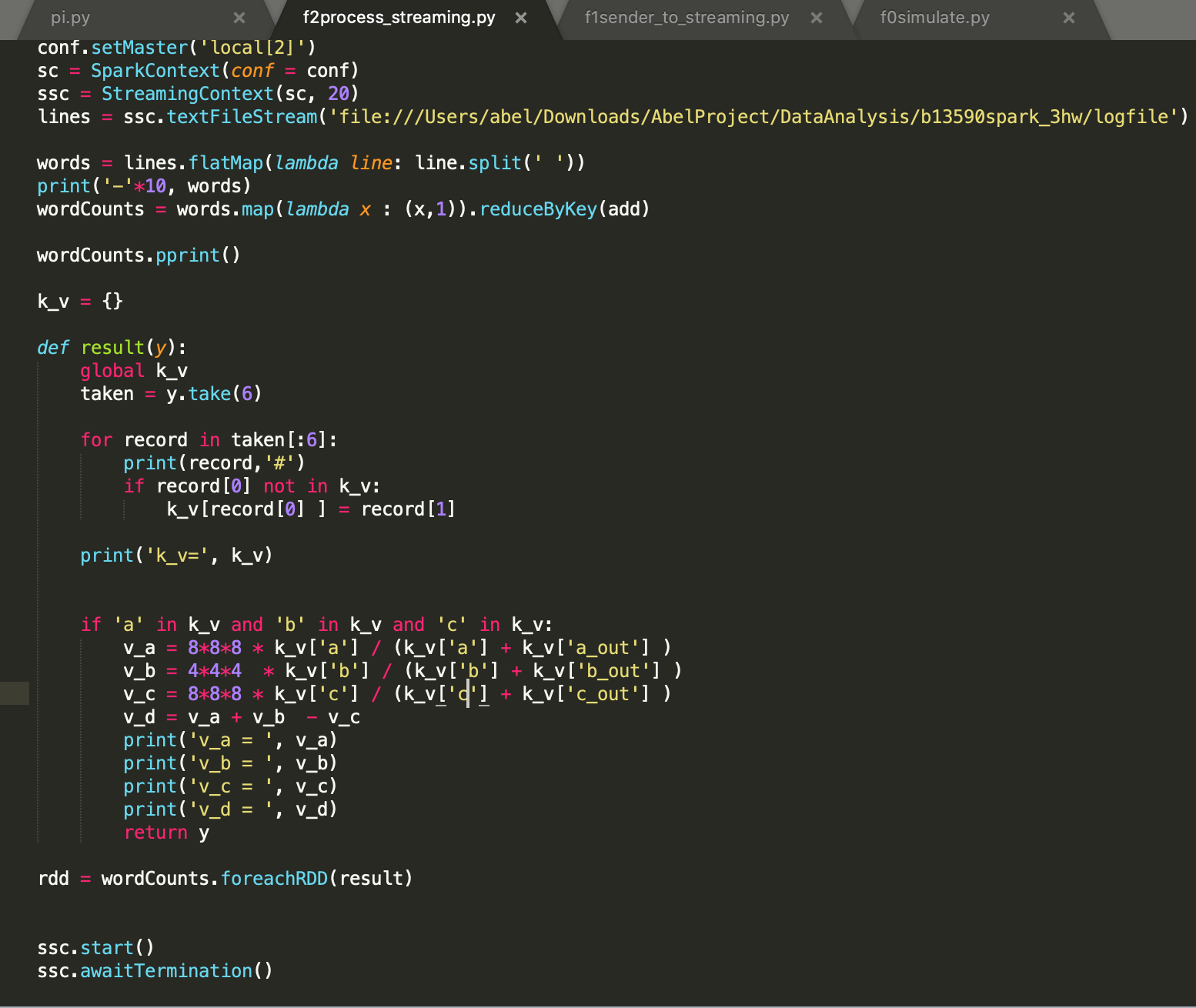
****

**second approach, you should use either Spark Streaming API :**

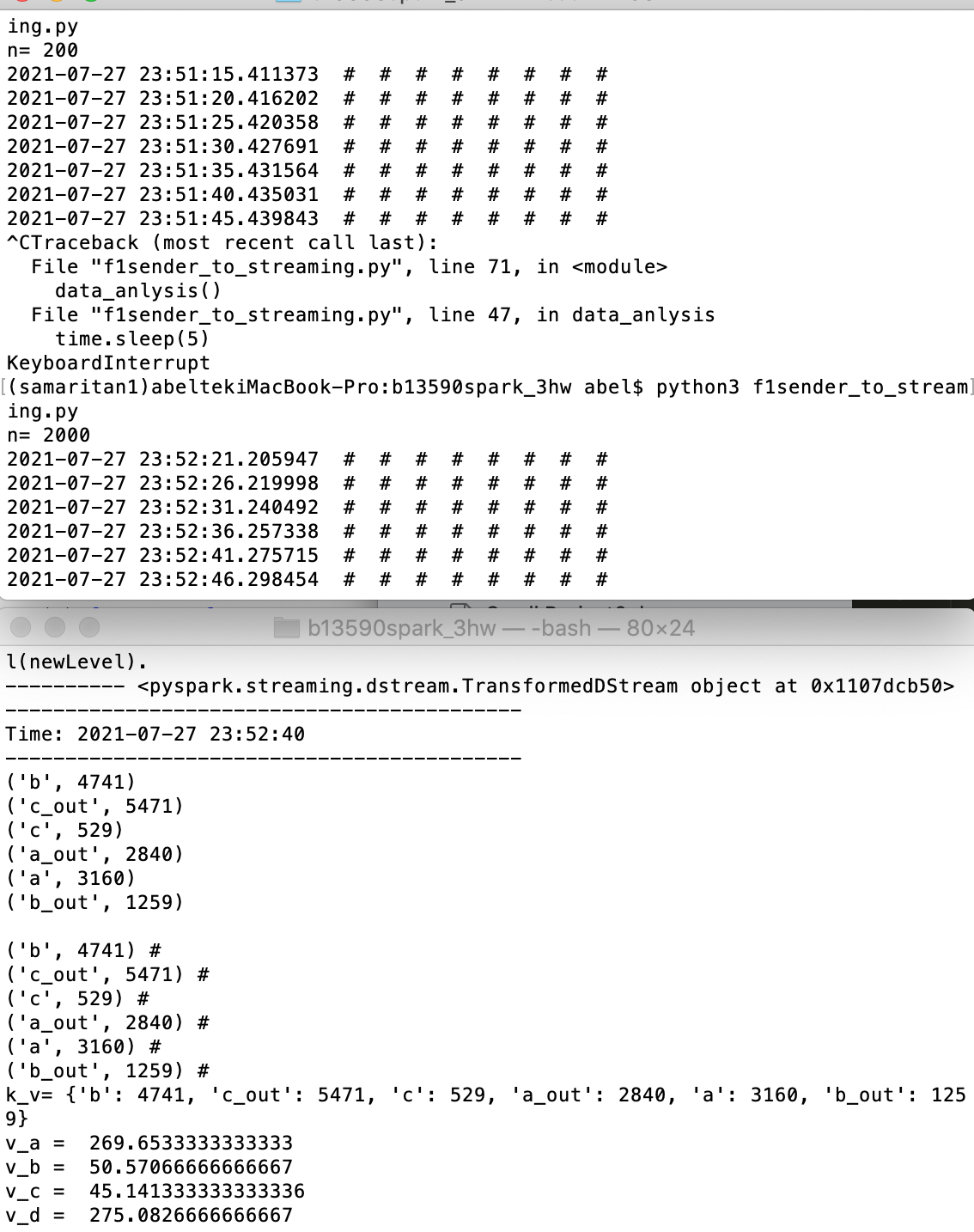
**code:**

****

****

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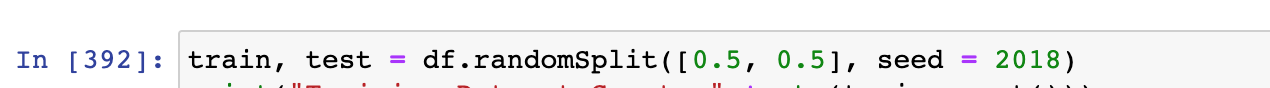
**Output is:**

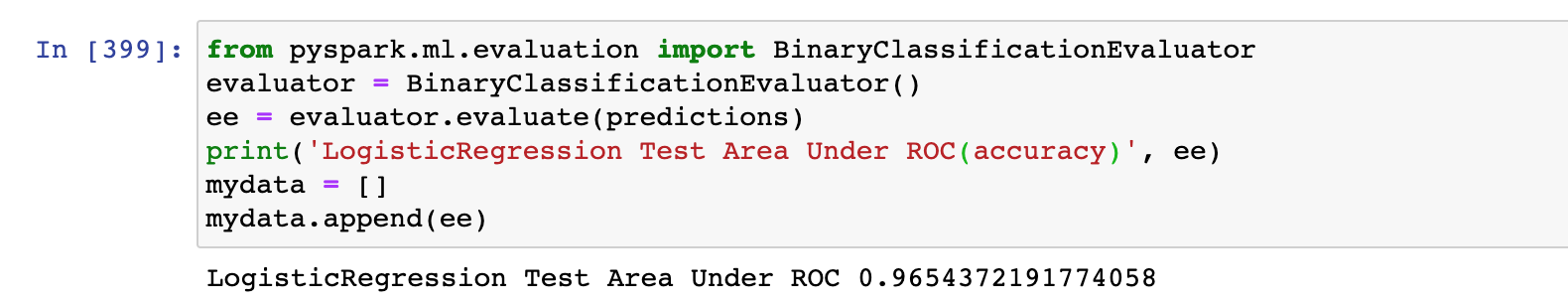
****

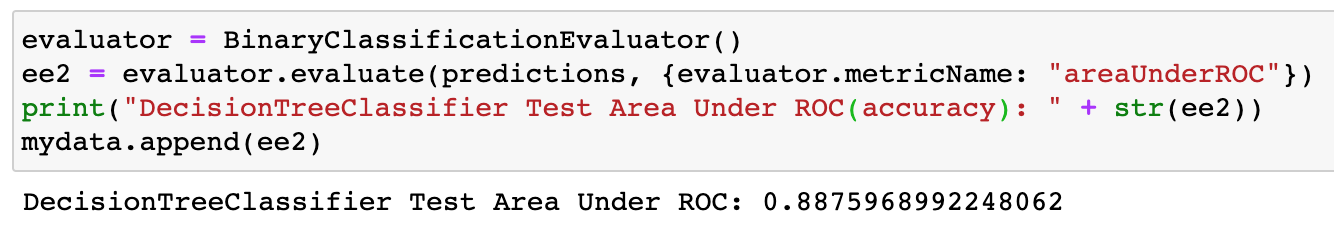
**Q2**

**2.1**

**当比例划分是5:5**

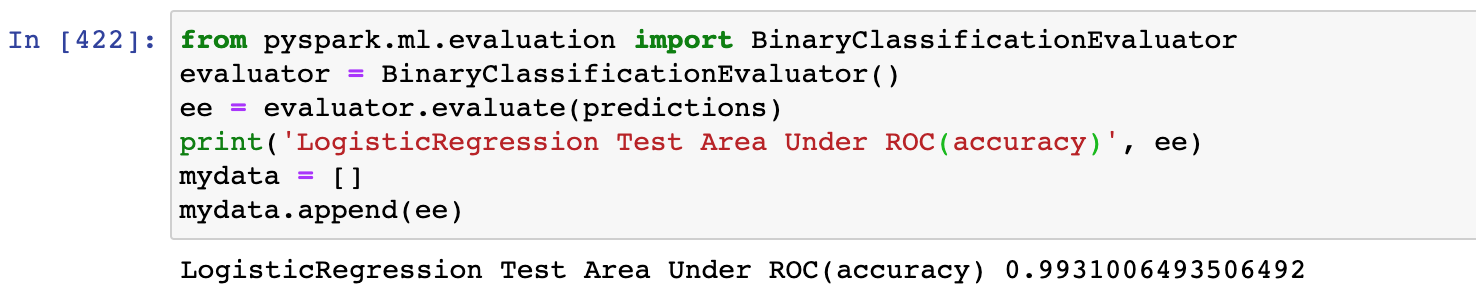
****

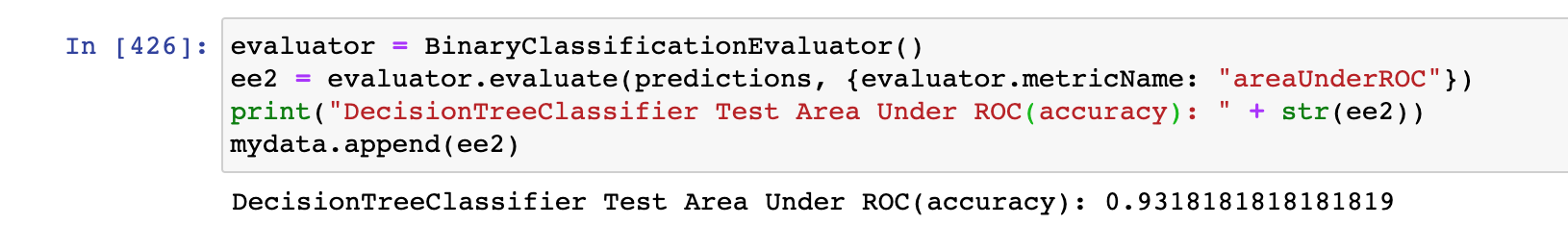
****

****

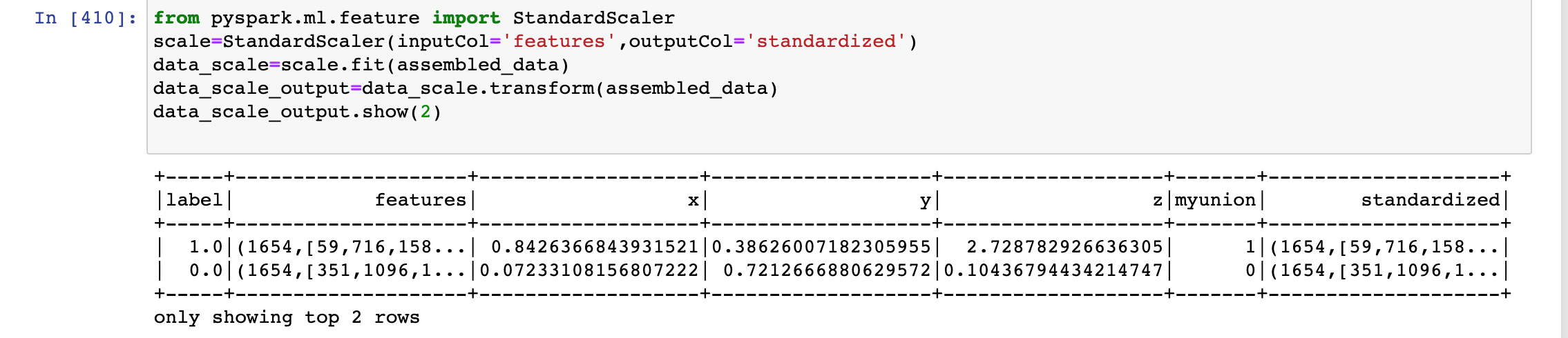
**当比例是8:2**

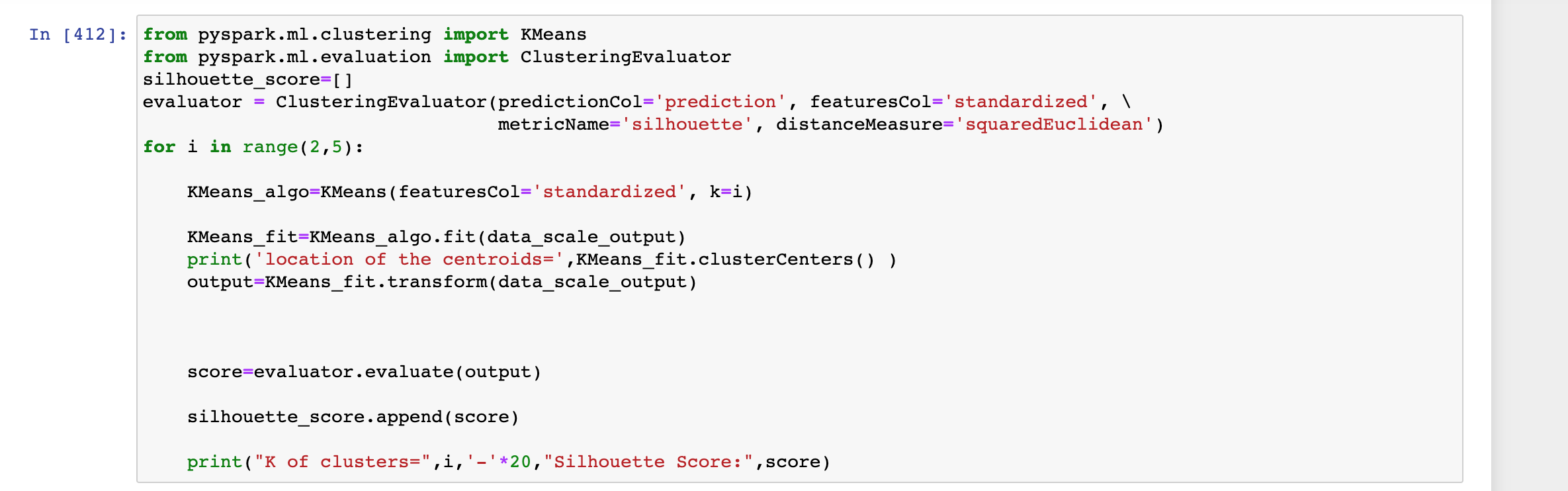
****

****

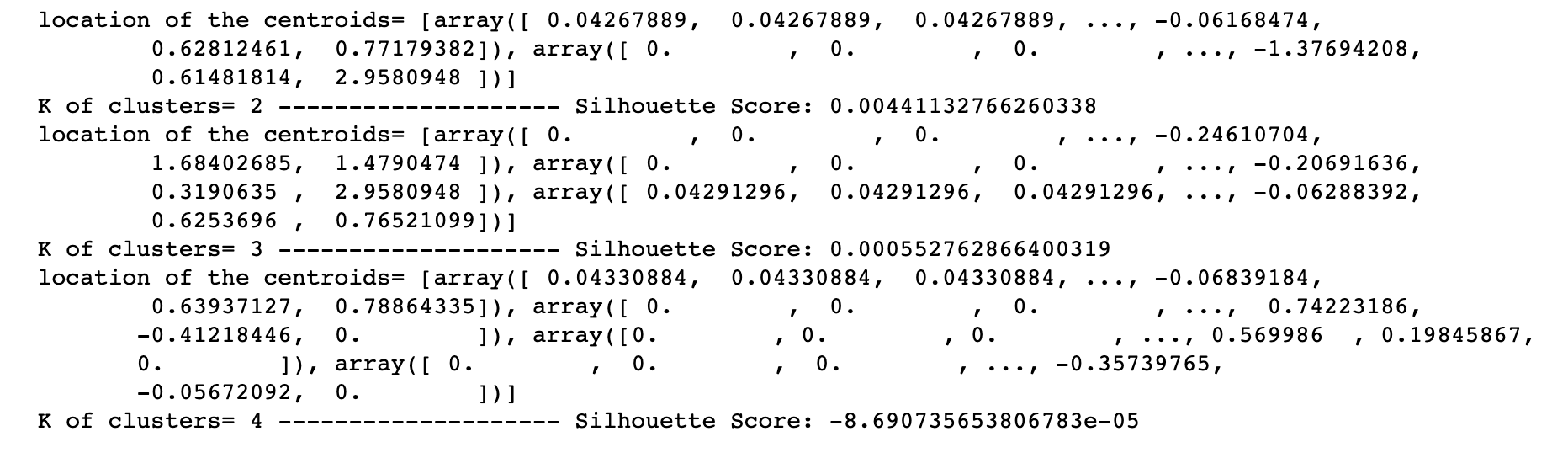
****

**2.2**

****

****

**Output:**

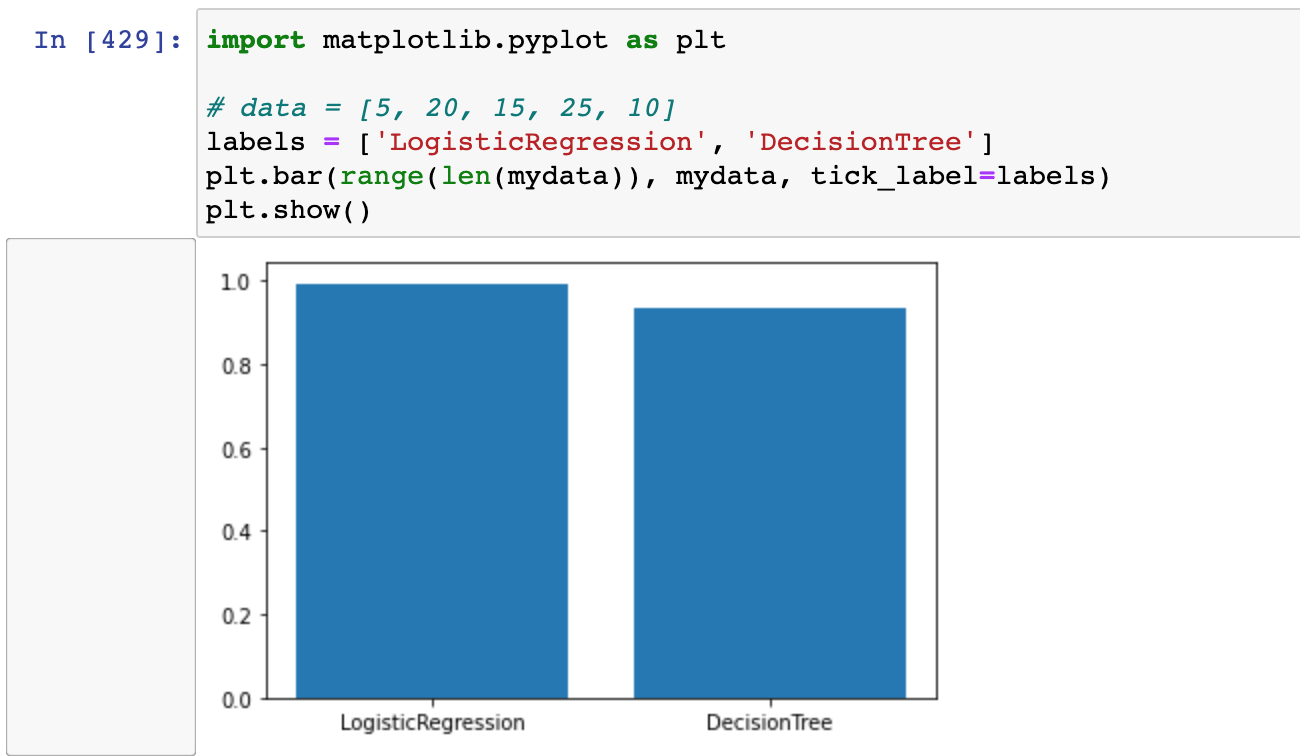
****

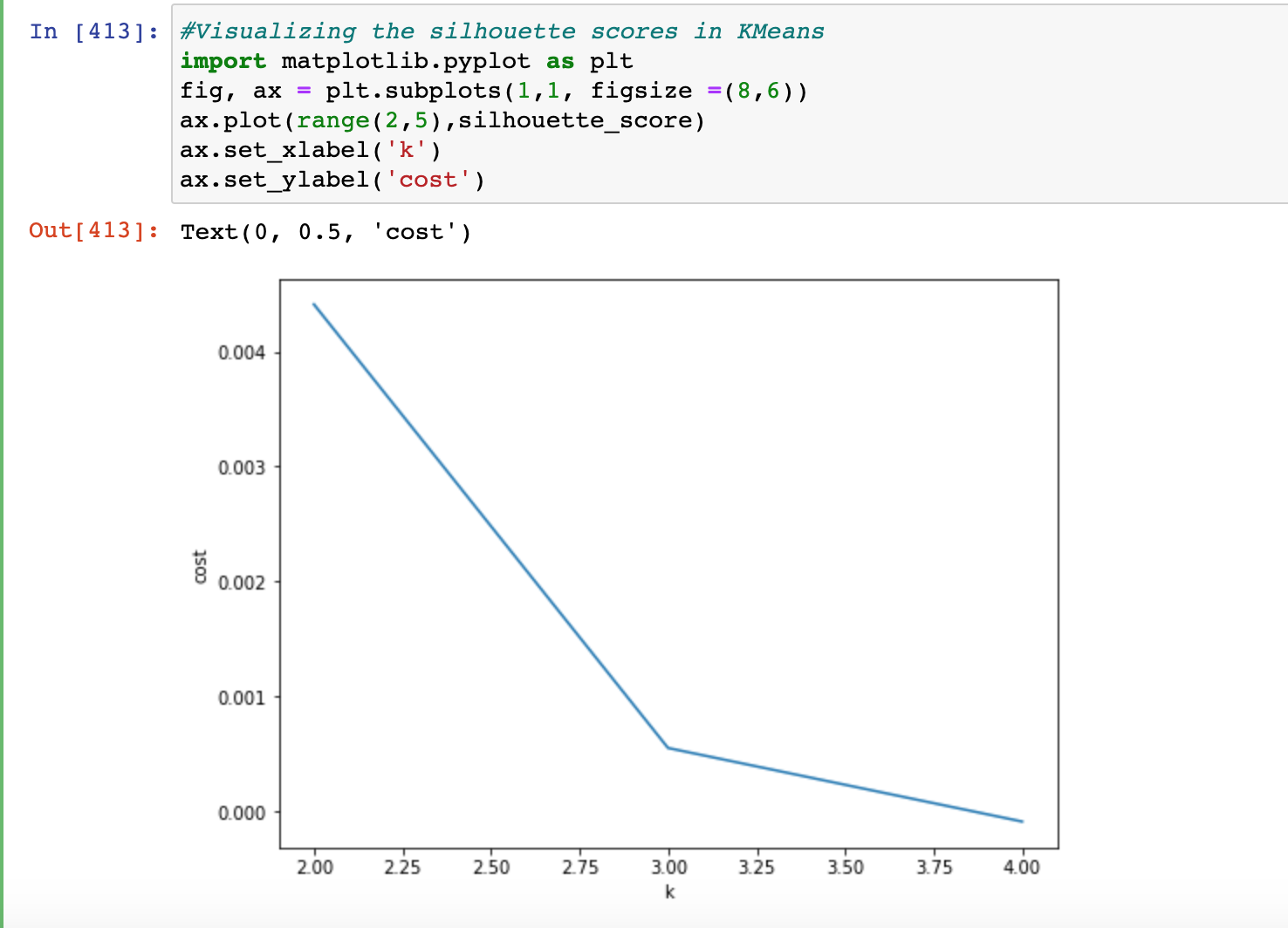
**2.3**

**比例5:5**

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**比例是8:2**

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