**Data Set Information:**

The dataset is composed by two tables. The first table go\_track\_tracks presents general attributes and each instance has one trajectory that is represented by the table   
go\_track\_trackspoints.

**Attribute Information:**

1. go\_track\_tracks.csv: a list of trajectories

id: trajectory的关键字  
id\_android - it represents the device used to capture the instance;   
speed - it represents the average speed (Km/H)   
distance - it represent the total distance (Km)   
rating - it is an evaluation parameter. Evaluation the traffic is a way to verify the volunteers perception about the traffic during the travel, in other words,   
if volunteers move to some place and face traffic jam, maybe they will evaluate 'bad'. (3- good, 2- normal, 1-bad).   
rating\_bus - it is other evaluation parameter. (1 - The amount of people inside the bus is little, 2 - The bus is not crowded, 3- The bus is crowded.   
rating\_weather - it is another evaluation parameter. ( 2- sunny, 1- raining).   
car\_or\_bus - (1 - car, 2-bus)   
linha - information about the bus that does the pathway   
  
  
  
(2) go\_track\_trackspoints.csv: localization points of each trajectory   
id: unique key to identify each point   
latitude: latitude from where the point is   
longitude: longitude from where the point is   
track\_id: identify the trajectory which the point belong ，与go\_track\_tracks.csv中id对应  
time: datetime when the point was collected (GMT-3)

题目要求：

1 通过对trajectory进行聚类，划分出样本为若干活动热区

聚类方法

以单个trajectory为计算单位(以go\_track\_trackspoints.csv 中track\_id为关键字)，该方法需要计算trajectory的代表节点（计算方法自行决定）

2 聚类方法采用密度聚类实现

3 把聚类结果以图形化方式展示出来