Anomaly is a pattern in the data that does not conform to the expected behavior. Also referred to as **outliers**, **exceptions**, **peculiarities**, **surprise**, etc.

Anomaly detection/outlier detection/novelty detection/ one-class classification/single-class classification

**novelty detection**

检测是否发生新的事件

更多参考：

Anomaly Detection A Tutorial.ppt

* Hierarchical Clustering (DMwR)
* Kmeans (distance metrics from proxy)
  + Kmeans Euclidean Distance
  + Kmeans Mahalanobis
  + Kmeans Manhattan
* Fuzzy kmeans (all from fclust)
  + Fuzzy kmeans - Gustafson and Kessel
  + Fuzzy k-medoids
  + Fuzzy k-means with polynomial fuzzifier
* Local Outlier Factor (dbscan)
* RandomForest (proximity from randomForest)
  + Isolation Forest (IsolationForest)
* Autoencoder (Autoencoder)
* FBOD and SOD (HighDimOut)

<http://projects.rajivshah.com/blog/2016/06/27/outlier_app/>