**Quiz 02 – 10 points**

**Name: Anas**

Q1. Differentiate between association and recommendation.

Q2. How do we get threshold values of support and lift?

1. **Lift** can be found by dividing the confidence by the unconditional probability of the consequent, or by dividing the support by the probability of the antecedent times the probability of the consequent.

Q3. How many types of cluster validation we can use?

1. We can use 3 types of cluster validation.
2. **Internal cluster validation**
3. **External cluster validation**
4. **Relative cluster validation**

Q4. How is Optics different from DB Scan?

1. The OPTICS clustering technique requires more memory then DB Scan
2. OPTICS also requires more computational power because the nearest neighbours queries are more complicated than radius queries in DBSCAN

Q5. List the matrices calculated in Affinity Propagation

1. Similarity matrix
2. Responsibility matrix
3. Availability matrix
4. Criterion matrix

Q6. How do you decide the number of cluster in Affinity Propagation?

1. Affinity propagation does not require the number of clusters to be determined or estimated before running the algorithm, it operates by considering all data point as exemplars and exchanging messages between data points until a good set of exemplars and clusters emerges.

Q7. How many types of anomalies are there ? Define the one that is most commonly type of anomalies.

1. Global
2. Contextual
3. Collective

Global anomalies are the most common type of anomalies

Q8. What is an Association Rule Mining?

1. *Association rule mining* is a procedure which aims to observe patterns from datasets found in databases.