**2.**) Include in your writeup a short paragraph describing your algorithm to tackle this problem.

**Ans**) Algorithm was divided into following steps:

1. Read the file to RDD using 8 partitions
2. Make pairs of all friends from the given text file (stored it into Friends\_Pair)
3. Make tuple by joining the Friends\_Pair to itself to generate all combinations of friends
4. Remove all the pairs satisfying the condition that 1st element is same as 2nd element.
5. Subtract pairs which are already friends of each other.
6. Generate tuple of all the (friend pair, 1)
7. reduceByKey to get the count of the total mutual pairs and group elements with same key.
8. Sort according to the pair having maximum count of mutual friends
9. Format the tuple to list and then to string for output.

**3.**) Include in your writeup the recommendations for the users with following user IDs: 924,

8941, 8942, 9019, 9020, 9021, 9022, 9990, 9992, 9993.

**Ans**) Here is the recommendations list for the above users:

1. **924**: 439, 2409, 6995, 11860, 15416, 43748, 45881
2. **8941**: 8940, 8943, 8944
3. **8942**: 8939,8940, 8943, 8944
4. **9019**: 317, 9022, 9023
5. **9020**: 317, 9016, 9017, 9021, 9022, 9023
6. **9021**: 317, 9016, 9017, 9020, 9022, 9023
7. **9022**: 317, 9016, 9017, 9019, 9020, 9021, 9023
8. **9990**: 13134, 13478, 13877, 34299, 34485, 34642, 37941
9. **9992**: 9987, 9989, 9991, 35667
10. **9993**: 9991, 13134, 13478, 13877, 34299, 34485, 34642, 37941