II. Special Topics

1. Mining large-scale data with Map-reduce: know how to formalize a problem in Map-reduce model.
2. Mining Streaming data:
   1. Query Type
   2. Mining streaming data applications
   3. Maintain representative sample, fixed size sample
   4. Bloom Filter, analysis of Bloom Filter
   5. Bit Counting: bucket data structure; maintain buckets.
3. Recommendation System
   1. Content-Filtering
   2. Collaborative Filtering
   3. Locality Sensitive Hashing:
      1. LS family
      2. Amplify LS family