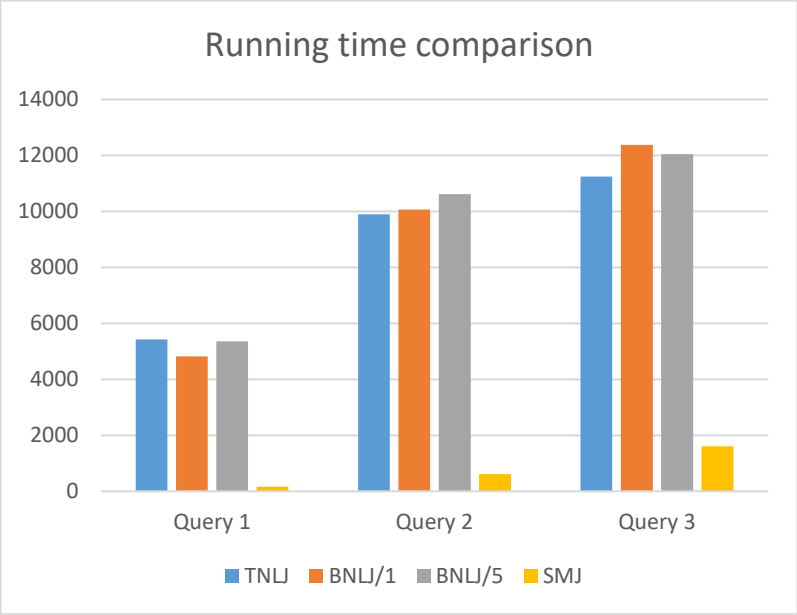
Experiments Results

- Three queries:
  - SELECT * FROM Sailors, Reserves WHERE Sailors.A = Reserves.H;
  - SELECT * FROM Sailors, Reserves, Boats WHERE Sailors.A = Reserves.H AND Reserves.G = Boats.E;
  - SELECT * FROM Sailors S, Reserves R, Boats B WHERE S.A = R.G AND R.H = B.F ORDER BY S.C;
- Data description:
  - The schema is:
    Sailors A B C
    Boats D E F
    Reserves G H
  - The schema is:
    Each attribute value was chosen uniformly at random in the range of 0 to 1000
  - 5000 tuples per relation
- In SMJ case, the buffer size for sort is 4
- The result of evaluation time is:
  For query one:
  - TNLJ: 5423
  - BNLJ/1: 4816
  - BNLJ/5: 5356
  - SMJ: 170

  For query two:
  - TNLJ: 9896
  - BNLJ/1: 10066
  - BNLJ/5: 10612
  - SMJ: 612

  For query three:
  - TNLJ: 11249
  - BNLJ/1: 12379
  - BNLJ/5: 12046
  - SMJ: 1607



- Conclusion:
  The speed is determined by binary reader. As binary reader reads data page by page, TNLJ in this design is equivalent to BNLJ with infinite space. Therefore, TNLJ and BNLJ have similar running time in this design. In addition, SMJ is the optimal one shown above.