Lab Work 12

1. (Perform set operations on hash sets) Create two linked hash sets {"George", "Jim", "John", "Blake", "Kevin", "Michael"} and {"George", "Katie", "Kevin", "Michelle", "Ryan"} and find their union, difference, and intersection. (You can clone the sets to preserve the original sets from being changed by these set methods.)
2. (Use the GenericStack class) Write a program that displays the first 50 prime numbers in descending order. Use a stack to store the prime numbers.
3. (Implement *GenericQueue* using inheritance) We have seen GenericQueue being implemented using composition. Define a new queue class that extends java.util.LinkedList.
4. (Generic *PriorityQueue* using *Comparator*) Revise MyPriorityQueue from lecture, using a generic parameter for comparing objects. Define a new constructor with a Comparator as its argument as follows:

*PriorityQueue(Comparator<? super E> comparator)*