Project 1

Write a java program to compute all prime numbers less than equal to a given integer N using the algorithm “Sieve of Erotosthenes”.

The Sieve of Eratosthenes is a method used to compute all primes less than equal to N. We begin by making a table of integers 2 to N. We find the smallest integer, i that is not crossed out, print i, and cross out 2i, 3i, … ..(actually better to start at i^2 and use increments $i^2 + i$, $i^2 + 2i$, $i^2 + 3i$,… etc until N). When i is > $\sqrt{N}$, the algorithm terminates.

Prompt the user to give an positive integer value N and print all primes up till N using the above algorithm on screen.