Name : Jay S. Chatpalliwar

PRN : 21510018

Assignment : 8

// Source code is decompiled from a .class file using FernFlower decompiler.

import java.util.Scanner;

public class DiffieHellmanAlgorithmExample {

   public DiffieHellmanAlgorithmExample() {

   }

   public static void main(String[] var0) {

      Scanner var17 = new Scanner(System.in);

      System.out.println("Both the users should be agreed upon the public keys G and P");

      System.out.println("Enter value for public key G:");

      long var3 = var17.nextLong();

      System.out.println("Enter value for public key P:");

      long var1 = var17.nextLong();

      System.out.println("Enter value for private key a selected by user1:");

      long var7 = var17.nextLong();

      System.out.println("Enter value for private key b selected by user2:");

      long var11 = var17.nextLong();

      long var5 = calculatePower(var3, var7, var1);

      long var9 = calculatePower(var3, var11, var1);

      long var13 = calculatePower(var9, var7, var1);

      long var15 = calculatePower(var5, var11, var1);

      System.out.println("Secret key for User1 is:" + var13);

      System.out.println("Secret key for User2 is:" + var15);

   }

   private static long calculatePower(long var0, long var2, long var4) {

      long var6 = 0L;

      if (var2 == 1L) {

         return var0;

      } else {

         var6 = (long)Math.pow((double)var0, (double)var2) % var4;

         return var6;

      }

   }

}

