Assignment No: 4

Assignment Title: RSA

Aim: Write a program using JAVA or Python or C++ to implement RSA asymmetric key algorithm.

Objectives: To understand the concepts of public key and private key

Theory:

      A. Number Theory:

            1. Euler Totient Function

            2. Euclidean Algorithm

            3. Extended Euclidean Algorithm

      B. RSA Algorithm:

            1. Key generation

            2. RSA Encryption

            3. RSA Decryption

            4. Example of RSA

Programming Language used: C++/Java/Python

Conclusion:

FAQs:

1. Compare symmetric key cryptography and asymmetric key cryptography
2. Write advantages and disadvantages of RSA algorithm.