**RSA (Rivest-Shamir-Adleman) Algorithm**

Approach:

RSA Encryption Algorithm is a type of public key encryption algorithm. Public Key encryption Algorithm is also called Asymmetric algorithm. The approach to implement the RSA algorithm will be as follows.

1. At first, we need to take two large prime numbers.
2. After that we need to calculate the value of **N** which is **p\*q**
3. After that we need to select a public key for that we need to make **E** such that it is not a factor of **(p-1)\*(q-1).** After calculation that value that we will obtain will be the (Encryption key public key ) **E.**
4. After that we need to Select the Decryption key (Private key) such that D holds the following equation true **(d\*e) mod(p-1)\*(q-1) = 1 .**
5. Now after this based on the values, we will consider encryption decryption process as follows A=1 , B = 2 , C=3 and so on
6. We will encrypt out plain text in the above format and place it in the formula given below which will convert it into cypher text.

**CT = (PT)^E mod N.**

1. Now to Decrypt the code we will use this formula which will convert the cypher text back to the plain text **PT = CT ^D mod n**