RSA Cryptography

1. Public key Cryptography -> RSA
2. What is the Greatest common divisor
3. What is Modular Arithmetic – Induction

Two types of Cryptography

1. Private key ---- Message + Passcode = Decryption
   1. So whoever knows the passcode is able to get the original data
   2. Its one of the most common ways of cryptography
2. Public key ---- Everyone has two passwords
   1. One is public key
      1. Public key is publicly known
   2. Another is a private key / secret key
      1. Private key is only known to the person who owns It or who created it at the first place
   3. In cryptography, using either one of the public or private key we can decrypt the data   
      A person writing on a glass board

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   4. So, if I want to securely send data to a person, I use their public key to encrypt my data, so they can use their private key to decrypt the data
      1. The next question how the receiver would know that it was me who sent the data not anyone else
         1. In past people use to share a common password, but now in the world of cryptography anyone can download someone’s public key to send the data to that person, without knowing their identity cause security vulnerabilities
            1. To solve this problem, we encrypt the data/message with a signature that is encrypted with senders own private key, so that the receiver uses the public key of the sender to decrypt the data and know that it was the authentic user
   5. This concept is used for example, when we have need to make a payment with a credit card to share information to have a successful transaction, without having to experience any security related issues

First Quiz  
**Quiz on Public Key Cryptography**Graded Assignment • 20 min

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