**The procedure** we use to both encrypt and decrypt the hostname is called “proc.asm”. We use a pretty simple algorithm that consists of XORing each letter in the host name with 3. This algorithm is illustrated in the below picture for the letter H which, after the encryption algorithm, is converted to letter K.

A blackboard with yellow writing

Description automatically generated

We apply this algorithm for all the other characters. A stack is used in order to successfully run this algorithm. In the below picture is drawn the stack.

A blackboard with yellow writing

Description automatically generated

In order to decrypt, we apply exactly the same algorithm, because if a letter is XORed 2 times, the result is the initial letter (H XOR 3 = K; K XOR 3 = H).