**ERLANG**

**OUTPUT**

Eshell V5.10.1 (abort with ^G)

1> c(caesercipher).

caesercipher.erl:6: Warning: variable 'Cipher' is unused

{ok,caesercipher}

2> caesercipher:encrypt("Hello World", 5).

"Mjqqt Btwqi"

3> caesercipher:decrypt("Mjqqt Btwqi", 5).

"Hello World"

4> caesercipher:solve("HAL",26).

HAL

GZK

FYJ

EXI

DWH

CVG

BUF

ATE

ZSD

YRC

XQB

WPA

VOZ

UNY

TMX

SLW

RKV

QJU

PIT

OHS

NGR

MFQ

LEP

KDO

JCN

IBM

HAL

ok

**SOURCE**

-module(caesercipher).

-export([encrypt/2, decrypt/2, solve/2]).

%%band is a bitwise operation, very important  
%% bnot X bitwise not X band Y bitwise and

convert(MyC,Cipher) when ((MyC >= $a) and (MyC =< $z)) or ((MyC >= $A) and (MyC =< $Z))->

(MyC band 32 + $A) + ((MyC - (MyC band 32 + $A)) + Cipher) rem 26;

convert(MyC,Cipher) when ((MyC /= $a) and (MyC /= $z)) or ((MyC /= $A) and (MyC /= $Z))-> MyC.

encrypt(Input, Cipher) ->

CipherKey = 26 + Cipher rem 26,

lists:map(fun(Char) -> convert(Char, CipherKey) end, Input).

decrypt(Input, Cipher) ->

encrypt(Input, -Cipher).

solve(Input,0) -> io:fwrite("\n"),io:fwrite(decrypt(Input,0));

solve(Input,Max) when Max > 0 ->

io:fwrite("\n"),

io:fwrite(decrypt(Input,-Max)),

solve(Input,Max-1).