

```

s = input('Enter the message: ', 's');
k = input('Enter the key: ', 's');
k = k(isstrprop(k, 'alpha'));

if isempty(k)
    error('Key must contain at least one alphabetic character.');
```

end

```

l = length(s);
len = length(k);
q = floor(l / len);
r = l - q * len;
knew = '';
for a = 1:q
    knew = [knew k];
end
knew = [knew k(1:r)];

cipher_text = s;

for i = 1:l
    char_s = s(i);
    char_k = knew(i);

    if isletter(char_s)
        if isstrprop(char_s, 'upper')
            base_s = double('A');
        else
            base_s = double('a');
        end

        if isstrprop(char_k, 'upper')
            base_k = double('A');
        else
            base_k = double('a');
        end

        shift = mod((double(char_s) - base_s) + (double(char_k) - base_k), 26);
        cipher_text(i) = char(shift + base_s);
    end
end

disp(['Encrypted: ', cipher_text]);
```

Encrypted: Wprjs ufbmx zuf u kcyne fvfcaY

```

%Input statement- 'Every cloud has a silver lining'
% Key- 'sun'
```