

```

class Caesar {

    @Override
    public String encrypt(String plainText, String key) {

        StringBuilder cipherText = new StringBuilder();
        char key1 = key.charAt(0);
        String plainText1 = plainText.toUpperCase();

        for(int i = 0; i < plainText1.length(); i++)
        {
            char ch = plainText1.charAt(i);
            if(ch >= 'A' && ch <= 'Z')
            {
                cipherText.append((char) ((ch - 'A' + key1 - 'A') % 26 + 'A'));
            }
        }

        return cipherText.toString();
    }

    @Override
    public String decrypt(String cipherText, String key) {

        StringBuilder plainText = new StringBuilder();
        char key1 = key.charAt(0);

        for(int i = 0; i < cipherText.length(); i++)
        {
            char ch = cipherText.charAt(i);
            if(ch >= 'A' && ch <= 'Z')
            {
                plainText.append((char) ((ch - key1 + 26) % 26 + 'A'));
            }
        }

        return plainText.toString();
    }
}

```

Shift: 10

Input: I had reached one of those pneumatic stoppers that defend us from the outer airoured from my hands cut; I cannot explain how I lived through this part,had simply been blown out of the earth, and the air that we make down here was escaping through the vent into the air above. It burst up like a fountain. I crawled back to it—for the upper air hurts— and, as it were, I took great sips from the edge. My respirator had flown goodness knows where, my clothes were torn. I just lay with my lips close to the hole,and I sipped until the bleeding stopped. You can imagine nothing so curious. This hollowin the grass — I will speak of it in a minute, — the sun shining into it, not brilliantly but through marbled clouds, — the peace, the nonchalance, the sense of space, and, brushing my cheek, the roaring fountain of our artificial air! Soon I spied my respirator, bobbing up and down in the current high above my head, and higher still were many air-ships. But no one ever looks out of air-ships, and in any case they could not have picked me up. There I was, stranded. The sun shone a little way down the shaft, and revealed the topmost rung of the ladder, but it was hopeless trying to reach it. I should either have been tossed up again by the escape, or else have fallen in, and died. I could only lie on the grass, sipping and sipping, and from time to time glancing around me.

Output:

SRKNBOKMRONYXOYPDRYCOZXOEWKDSMCDYZZOBCDRKDNOPOXNECPBYWDROYEDOBKSBYEBONPBYWW
IRKXNCMEDSMKXXYDOHZVKXSRYGSVSFONDRBYEQDRSCZKBDRKNCSWZVILOOXLVYGXYEDYPDROOK
BDRKXNDROKSBDKDGOWKUONYGXROBOKCOCKMZSXQDRBYEQDRDROFOXDSXDYDROKSBLKYFOSDLEB
CDEZVSUOKPYEXDKSXSMKGVONLKMUDYSDPYBDROEZZOBKSBBREBDCKXNKCSGGOBOSDYUQBOKDCS
ZCPBYWDROONQOWIBOCZSBKDYBRKNPVYGXQYYNXOCCUXYGCGRBOWIMVYDROCGOBYBXSTECVK
IGSDRWIVSZCMVYCODYDRORYVOKXNSCSZZONEXDSVDROLVOONSXQCDYZZONIYEMKXSWKQSOXYDR
SXQCYMEBSYECDRSCRYVVYGSXDROQBKCCSGSVVCZOKUYPSDSXKWSXEDODROCEXCRSXSXQSDYSDX
YDLBSVVSKXDVILEDDRBYEQRWKBLVONMVENCDROZOKMODROXYXMRKVXKXMODROCOXCOYPCZKMOKX
NLBECRSXQWIMROODROBYKBSXQPYEXDKSXYPYEBKBDSPMSKVKSB CYXSCZSONWIBOCZSBKDYBL
YLLSXQEZXKXNNYGXSXDROMEBOXDRSQRKLYFOWIROKNKXNRSQROBCDSVVGOWKXIKSBCRSZCLED
XYXXOOFB VYYUCYEDYPKSBCRSZCKXNSXXKIMKCODROIMYEVNXYDRKFOZSMUONWOEZDROBOSGKCC
DBKXNONDROCEXCRYXOKVSDDVOGKINYGXDROCRKPKXNB OFOKVONDRODYZWYCD BEXQYPDROVKNNNO
BLEDS DGKCRYZOVOCDBISXQDYBOKMRSDSCRYEVNOSDROBRKFOLOOXDYCCONEZKQKSXLIDROOCMK
ZOYBOVCORKFOPKVVOXSXKXNNSONSMYEVNXYVIVSOYXDROQBKCCCSZZSXQKXNCSZZSXQKXNPBYWD
SWODYDSWOQVKXMSXQKBYEXNWO

