**class** Vigenere {

@Override

**public** String encrypt(String plainText, String key) {

StringBuilder cipherText= **new** StringBuilder();

plainText = plainText.toUpperCase();

StringBuilder plainText1 = **new** StringBuilder();

**for**(**int** i=0;i<plainText.length();i++)

{

**char** ch = plainText.charAt(i);

**if**(ch>='A'&&ch<='Z')

{

plainText1.append(ch);

}

}

**int** j = 0;

**for**(**int** i = 0;i<plainText1.length();i++)

{

**char** ch = plainText1.charAt(i);

cipherText.append((**char**)((ch-'A'+(key.charAt(j++%key.length())-'A'))%26+'A'));

}

**return** cipherText.toString(); }

@Override

**public** String decrypt(String cipherText, String key) {

String cipherText2 = cipherText;

StringBuilder plainText = **new** StringBuilder();

**int** j = 0;

**for**(**int** i =0;i<cipherText2.length();i++)

{

**char** ch = cipherText2.charAt(i);

**if**(ch>='A'&&ch<='Z')

plainText.append((**char**)((ch-key.charAt(j++%key.length())+26)%26+'a'));

}

**return** plainText.toString();

}

}

**Key:** HELLO

**Output:**

PLLOFLENSSKSYPCMXSZGLTYPITEETQZXZADLVDEVHXOPTLROFGMVZXHOIZFHLVLTFVYCPRMVZXAFLLYRZGFEWJEYYCAIIAZHMYSCDMWTJLHESFVYRSHOMDAOYXSLRZMXAZFFPPBIPZHBVYEZTALPPOYXSLBKXSPOPVESOAAPXORIOZKULPCSDEDPGJEATBNXSCCBKSEVLZPYHPREZHOILTFHFZGSPXMFFZXFAZPOPLTVYYEOPRTNFHAWPRIENVHVMEQCYXSPIWTPCOPVSFFAWLYRHWTEKLVPTHVSVRFLEEDWWWQCCTXSPSKKPXMYIDAWYEEZFOEOQZVAYRCVHYPGZOYZKZASPFLQJNZVXSPGDICPHVVYTXBWEWOFATEVTCWTDZGWZGLXZEVLLZWSHROTGPTAPRBRETZALPMZLIOTBNWEZDWIOJCBGLYWTERTBLRZEVPRRDCJYCTCBWESWZLZWZVATYHOIRCOZWTHWSPDASHOZQWAMYLAPRFESALPDIUWSTBPRRTBASTEBVXMCWSPTLBAPJMIAXSCCBKSXOYFWPRJPZFRZXSPDLENPHOIYZBJLLWOUGPEVLWPYGLSQDDHGPLBKFCFGOMYRAFGSPSRXSPFVECTBNJZFBAETYCMSFCOYXTQWJMLWOPVDZCUMDAWLHXJFLWATFHXZCPVFMTBNYALBKHZHBPRESSJYCCSUXSTUOEMZJLQJSSHHLYROMRSSYWETZSAPCSTEYJOPVDSWWWMFHUSZYSLZPCZVSVDCBXZQOPVDSWWWLYRPRLYMJEDPHOIJNCBPOYCALLGSWMNVSKQPFDALPCSPALDGAVLYRLHESSZYYDVVRPLZPXEWSDEJOCDRESSZLLQHHROCSCILWSKXSPHVTXZGAVFYUVJESSSEOOSYFFEWAALDVVTPWSZWECMPRRECYILNVPXTDVVYWOSPXSPFOEGPPLIYECZWPOIWERLWUFJEVLIDNOWIZCSSWPSOCIQLZSIYTBHROOWLHTNCBPOZBSCWTSVRESSNVLDGZMAAWUKLYRZMAAWUKLYRMVZXHPQPECAMXPUSEYNWUKLCCBROXS