**class** **PlayFair** {

@Override

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

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

{

**int** b[] = **new** **int**[SIZE];

**for**(**int** j=0;j<SIZE;j++)

b[j] = plainText1.charAt(i+j)-'A';

**for**(**int** j=0;j<SIZE;j++)

{

**int** sum = 0;

**for**(**int** k=0;k<SIZE;k++)

sum = (sum+b[k]\*K[k][j]);

sum = sum%26;

cipherText.append((**char**)(sum+'A'));

}

}

**return** cipherText.toString();

}

@Override

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

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

{

**int** b[] = **new** **int**[SIZE];

**for**(**int** j=0;j<SIZE;j++)

b[j] = cipherText.charAt(i+j)-'A';

**for**(**int** j=0;j<SIZE;j++)

{

**int** sum = 0;

**for**(**int** k=0;k<SIZE;k++)

{

sum = (sum+b[k]\*invK[k][j]);

}

sum = sum%26;

plainText.append((**char**)(sum+'A'));

}

}

**return** plainText.toString();

}

}

**Key Matrix:** {{17,17,5},{21,18,21},{2,2,19}}

**Output:**

