Program-20 ECB mode in c program

#include<stdio.h>

#include<string.h>

void encryptBlock(char \*plaintext, char \*ciphertext)

{

strcpy(ciphertext,plaintext);

}

void decryptBlock(char \* ciphertext,char \*plaintext)

{

strcpy(plaintext,ciphertext);

}

void simulateTransmittedCiphertextError(char \* ciphertext, int blockindex)

{

ciphertext[blockindex]^=0x01;

}

int main(){

char P1[] = "Hello, this is P1.";

char P2[] = "And this is P2.";

char C1[20], C2[20];

char C1\_error[20], C2\_error[20];

encryptBlock(P1, C1);

encryptBlock(P2, C2);

printf("ECB Mode:\n");

printf("Original C1: %s\n", C1);

printf("Original C2: %s\n", C2);

strcpy(C1\_error, C1);

simulateTransmittedCiphertextError(C1\_error, 5);

printf("Transmitted C1 with error: %s\n", C1\_error);

char P1\_error[20];

decryptBlock(C1\_error, P1\_error);

printf("Decrypted P1 (with error): %s\n", P1\_error);

char P2\_decrypted[20];

decryptBlock(C2, P2\_decrypted);

printf("Decrypted P2: %s\n", P2\_decrypted);

return 0;

}

