Encrypt System Call:

NAME

encrypt - encrypt the contents of a file descriptor using a key

SYNOPSIS

#include <unistd.h>
void encrypt (int fd, int key);

DESCRIPTION

encrypt() encrypts the contents of the file descriptor using the XOR operation and the key given by the user. It receives the data from the file descriptor, encrypts it using the XOR operation with the key, and then sends the encrypted data back.

PARAMETERS

fd: The file descriptor for the file to be encrypted.
key: Key used for encryption. With this key, the XORing of each byte in the file is done.

RETURN VALUE

The encrypt system call return -1 on failure and 0 on success.

ERRORS

EBADF: fd isn't a valid open file descriptor.

EXAMPLES

```
#include <unistd.h>
#include <fcntl.h>
int main ()
{
int fd = open ("filename.txt", O_RDWR);
if (fd == -1)
{
 perror("failed");
 return -1;
}
encrypt(fd, 0xAB);
close(fd);
return 0;
}
```

Decrypt System Call:

NAME

decrypt - decrypts the contents of a file descriptor encrypted using a key

SYNOPSIS

#include <unistd.h>
void decrypt(int fd, int key);

DESCRIPTION

decrypt() function decrypts the contents of the file descriptor fd that were encrypted using the XOR technique with the given key. It receives data from the file descriptor, decrypts it using the XOR operation with the key, and then writes the decrypted data back to the file descriptor.

PARAMETERS

fd: File descriptor to the file to be decrypted.
key: Key used for decryption. With this key, the XORing of each byte in the file is done.

RETURN VALUE

The decrypt system call return -1 on failure and 0 on success.

ERRORS

EBADF: fd isn't a valid open file descriptor.

EXAMPLES

```
#include <unistd.h>
#include <fcntl.h>
int main()
{
int fd = open("filename.txt", O_RDWR);
if (fd == -1)
{
perror("failed");
return -1;
}
decrypt(fd, 0xAB);
close(fd);
return 0;
}
```

Encrypt Library Function:

NAME

encrypt - encrypts the contents of a file descriptor using a key

SYNOPSIS

#include <unistd.h>
void encrypt(int fd, int key);

DESCRIPTION

encrypt library function encrypts the contents of the file descriptor fd using the XOR operation with the provided key by the user. It reads the data from the file descriptor, encrypts it using the XOR operation using the given key, and writes the encrypted data back to the file descriptor.

PARAMETERS

fd: File descriptor to the file to be encrypted.
key: Key being used for the encryption. Each byte of the file is XORed using this key by the user.

RETURN VALUE

The encrypt system call return -1 on failure and 0 on success.

EXAMPLES

```
#include <unistd.h>
#include <fcntl.h>
int main()
{
int fd = open("filename.txt", O_RDWR);
if (fd == -1)
{
perror("failed");
return -1;
}
encrypt(fd, 0xAB);
close(fd);
return 0;
}
```

Decrypt Library Function:

NAME
decrypt - decrypts the contents of a file descriptor encrypted with a key

SYNOPSIS

#include <unistd.h>
void decrypt(int fd, int key);

DESCRIPTION

decrypt library function decrypts the contents of the file descriptor fd that have been encrypted using the XOR operation using the provided key by the user. It reads the data from the file descriptor, decrypts it using the XOR operation using the key, and writes the decrypted data back to the file descriptor.

PARAMETERS

fd: File descriptor to the file to be decrypted.
key: Key used for decryption. Each byte of the file is XORed using this key by the user.

RETURN VALUE

The decrypt system call return -1 on failure and 0 on success.

EXAMPLES

```
#include <unistd.h>
#include <fcntl.h>
int main()
{
int fd = open("filename.txt", O_RDWR);
if (fd == -1)
{
perror("failed");
return -1;
}
decrypt(fd, 0xAB);
close(fd);
return 0;
}
```