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errorHandling.c

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#ifndef socketError_
#define socketError_
#include <sys/socket.h>
#include <stdio.h>
#include <stdlib.h>
#include <unistd.h>
#include <arpa/inet.h>

int Socket(int family, int type, int flags) {
    int sockfd;
    if ((sockfd = socket(family, type, flags)) < 0) {
        perror("socket");
        exit(EXIT_FAILURE);
    } else
        return sockfd;
}

void Bind(int sockfd, const struct sockaddr *addr, socklen_t addrlen){
    if (bind(sockfd, addr, addrlen) == -1) {
        perror("bind");
        exit(EXIT_FAILURE);
    }
}

void Listen(int sockfd, int backlog) {
    if (listen(sockfd, backlog) == -1) {
        perror("listen");
        exit(EXIT_FAILURE);
    }
}

int Accept(int listenfd, struct sockaddr *addr, socklen_t *addrlen) {
    int connfd;
    if ((connfd = accept(listenfd, addr, addrlen)) == -1) {
        perror("accept");
        exit(EXIT_FAILURE);
    }
    return connfd;
}

void Connect(int sockfd, const struct sockaddr *addr, socklen_t addrlen){
    //conecte o socket com o endereco passado por argumento
    if (connect(sockfd, addr, addrlen) < 0) {
        perror("connect error");
        exit(EXIT_FAILURE);
    }
}

void Getsockname(int sockfd, struct sockaddr *addr, socklen_t *addrlen){
    //obtenha o endereco com o qual estamos comunicando
    if (getsockname(sockfd, addr, addrlen) < 0) {
        perror("getsockname error:");
        exit(EXIT_FAILURE);
    }
}

// leia count bytes de fd e ponha em buf
ssize_t Read(int fd, void *buf, size_t count) {
    ssize_t n = read(fd, buf, count);
    //reporte erros de read()
    if (n < 0) {

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        perror("read");
        exit(EXIT_FAILURE);
    }
    return n;
}

void Write(int fd, const void *buf, size_t count) {
    if (write(fd, buf, count) == -1) {
        perror("write");
        exit(EXIT_FAILURE);
    }
}

void Fputs(const char *s, FILE *stream) {
    if (fputs(s, stream) == EOF) {
        perror("fputs");
        exit(EXIT_FAILURE);
    }
}

void Inet_pton(int af, const char *src, void *dst) {
    if (inet_pton(af, src, dst) ≤ 0) {
        perror("inet_pton error");
        exit(EXIT_FAILURE);
    }
}

void Execv(const char *path, char *const argv[]) {
    execv(path, argv);
    perror("execvp"); // execve only returns on failure
    exit(EXIT_FAILURE);
}

void Pipe(int pipefd[2]) {
    if (pipe(pipefd) == -1) {
        perror("pipe");
        exit(EXIT_FAILURE);
    }
}

FILE* Fopen(const char *path, const char *mode) {
    FILE *f = fopen(path, mode);
    if (f == NULL) {
        perror("fopen");
        exit(EXIT_FAILURE);
    }
    return f;
}
#endif

```