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#include<stdio.h>
#include<unistd.h>
#include<sys/msg.h>
#include<sys/ipc.h>

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struct mesg_buffer{
    long type;
    char text[100];
};

int main(){
    struct mesg_buffer buf;
    key_t key;
    int msgid;
    key = ftok(".", 'x');

    msgid = msgget (key, 0666 | IPC_CREAT);
    buf.type = 1;

    //parent child fork
    if(fork()) {

        printf("Hello from Parent %d! Enter a chore:\n ", getpid());
        fgets(buf.text, sizeof(buf.text), stdin);//reply

        msgsnd(msgid, &buf, sizeof(buf.text), 0);
        printf("I sent the Chore.\n\n");

        wait(NULL);
        //wait for child to reply then read
        msgrcv(msgid, &buf, sizeof(buf.text), 0, 0);
        printf("I'm Parent %d!\n ", getpid());
        printf("My child says: %s\n", buf.text);

    } else {
        msgrcv(msgid, &buf, sizeof(buf.text), 0, 0);
        printf("Hello from Child %d! My chore is: %s\n ", getpid(), buf.text);
        printf("I Finished my Chore. Sending my parent: \n");
        fgets(buf.text, sizeof(buf.text), stdin);//reply
        msgsnd(msgid, &buf, sizeof(buf.text), 0);
        printf("I sent my parent a reply\n\n");
    }
}

```