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#include<stdio.h>
#include<unistd.h>
#include<sys/types.h>
#include<ctype.h>

// Function to convert a string to uppercase
void convert(char *str);

int main()
{
   int fd1[2];  // Pipe for parent to child communication
   int fd2[2];  // Pipe for child to parent communication
   char buff[10];   // Buffer to store data from pipe
   char buff3[10];  // Buffer to store the transformed data
   pid_t x;   // Process ID

   // Create two pipes
   pipe(fd1);
   pipe(fd2);

   // Fork the process (creating a child process)
   x = fork();

   // Child process block (x == 0)
   if(x == 0)
   {
      // Close the write end of fd1 as we are only reading from it
```

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    close(fd1[1]);
    // Read data from the parent through fd1 (up to 6 bytes)
    read(fd1[0], buff, 6);
    // Convert the string to uppercase
    convert(buff);
    // Close the read end of fd1
    close(fd1[0]);

    // Close the read end of fd2 as we are writing to it
    close(fd2[0]);
    // Write the transformed string to fd2 (send it to the parent)
    write(fd2[1], buff, 6);
    // Close the write end of fd2
    close(fd2[1]);
}
else
{
    // Parent process block (x != 0)
    // Close the read end of fd1 as we are only writing to it
    close(fd1[0]);
    // Write the string "hello" to fd1 (send it to the child)
    write(fd1[1], "hello", 6);
    // Close the write end of fd1
    close(fd1[1]);

    // Close the write end of fd2 as we are only reading from it
    close(fd2[1]);
    // Read the transformed string from fd2 (from the child)
    read(fd2[0], buff3, 6);
```

```
        // Print the transformed string
        printf("msg=%s\n", buff3);
    }

    return 0;
}

// Function to convert the string to uppercase
void convert(char *str)
{
    // Loop through each character of the string and convert to uppercase
    while(*str != '\0')
    {
        *str = toupper(*str);
        str++;
    }
}
```