SISTEMAS OPERATIVOS 1

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CÓDIGO

holaMundoPipes.c

```
//gcc 7.4.0
/* 0
a m d
o l U n
h
*/
#include <stdio.h>
#include <stdlib.h>
#include <sys/wait.h>

int main(void)
{
pid_t pA,pO,pH,pL,pM,pU,pD,pN;
int fd[2];
char buffer[20];
char resultado[20];
//write(fd[1],buffer,strlen(buffer));
//read(fd[0],buffer,20);

pipe(fd);

if((pA=fork()) == 0){ //proceso a
if((pO=fork()) == 0){ //proceso o
if((pH=fork()) == 0){ //proceso h
strcat(buffer, "H");
write(fd[1],buffer,strlen(buffer));
}else{ //proceso o
waitpid(pH,NULL,0);
strcat(buffer, "O");
write(fd[1],buffer,strlen(buffer));
}
}else{ //proceso a

waitpid(pO,NULL,0);

if((pL=fork()) == 0){ //proceso l
strcat(buffer, "L");
write(fd[1],buffer,strlen(buffer));
}else{ //proceso a
waitpid(pL,NULL,0);
strcat(buffer, "A");
write(fd[1],buffer,strlen(buffer));
}
}
```

```
read(fd[0],buffer,20);
printf("%s",buffer);
}else{ //proceso 0

waitpid(pA,NULL,0);

if((pM=fork()) == 0){ //proceso m
strcat(buffer, " M");
write(fd[1],buffer,strlen(buffer));
}else{ //proceso 0

waitpid(pM,NULL,0);

if((pD=fork()) == 0){ //proceso d
if((pU=fork()) == 0){ //proceso u
strcat(buffer, "U");
write(fd[1],buffer,strlen(buffer));
}else{ //proceso d

waitpid(pN,NULL,0);

if((pN=fork()) == 0){ //proceso n
strcat(buffer, "N");
write(fd[1],buffer,strlen(buffer));
}else{ //proceso d
waitpid(pN,NULL,0);
strcat(buffer, "D");
write(fd[1],buffer,strlen(buffer));

}
}
}else{ //proceso 0
waitpid(pD,NULL,0);
strcat(buffer, "O\n");
write(fd[1],buffer,strlen(buffer)+1);

}
}
read(fd[0],buffer,20);
printf("%s",buffer);
}
return 0;
}
```


irvyn@irvyn-System-Product-Name:~/Documentos/SO1$ ./holaMundoPipes
HOLA MUNDO
irvyn@irvyn-System-Product-Name:~/Documentos/SO1$