Assignment 6

a. Code

#include<pthread.h>

#include<stdio.h>

#include<sys/types.h>

#include<unistd.h>

#include<stdlib.h>

#include<sys/wait.h>

int main(void)

{

int fd[2],i = 0;

pipe(fd);

pid\_t pid = fork();

if(pid>0){

wait(NULL);

close(0);

close(fd[1]);

dup(fd[0]);

char s[100];

int n = read(fd[0],s,sizeof(s));

printf("I am the parent process, and below is the message from my child\n");

printf("%s \n",s);

}

else if(pid == 0)

{

printf("I am the child.\n");

printf("Enter the string for child process\n");

char sen[100];

scanf("%[^\n]s",sen);

close(fd[0]);

close(1);

dup(fd[1]);

write(1,sen,sizeof(sen));

}

else

{

perror("error\n");

}

return EXIT\_SUCCESS;

}

b. Code

Process 1

#include<stdio.h>

#include<string.h>

#include<stdlib.h>

#include<fcntl.h>

#include<sys/types.h>

#include<sys/stat.h>

#include<unistd.h>

int main()

{

int fd;

char \*myfifo = "myfifo";

mkfifo(myfifo, 0666);

char s1[50], s2[50];

printf("I am the first Processor\n");

while(1)

{

fd = open(myfifo, O\_WRONLY);

printf("Enter the first string: ");

fgets(s1,50,stdin);

write(fd,s1,strlen(s1)+1);

printf("\nEnter the second string: ");

fgets(s2,50,stdin);

write(fd,s2,strlen(s2)+1);

close(fd);

}

return 0;

}

Process 2

#include<stdio.h>

#include<string.h>

#include<stdlib.h>

#include<fcntl.h>

#include<sys/types.h>

#include<sys/stat.h>

#include<unistd.h>

int main()

{

int fd1;

char \* myfifo = "myfifo";

mkfifo(myfifo, 0666);

char s1[50],s2[50];

printf("I am the second Processor\n");

while(1)

{

fd1 = open(myfifo,O\_RDONLY);

read(fd1,s1,sizeof(s1));

read(fd1,s2,sizeof(s2));

close(fd1);

if(strcmp(s1,s2)==0)

{

printf("Same string\n");

}

else

{

printf("Different String\n");

}

return 0;

}

}

