

MIT WORLD PEACE UNIVERSITY

Operating Systems
Second Year B. Tech, Semester 3

INTERPROCESS COMMUNICATION - SHARED
MEMORY CONCEPT IMPLEMENTATION USING
PIPE()

ASSIGNMENT 2
PRACTICAL REPORT

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1 Code

```
1 // C program to illustrate
2 // pipe system call in C
3 #include <stdio.h>
4 #include <unistd.h>
5 #include <stdlib.h>
6
7 int read_write_eg(void)
8 {
9     int pipefds[2];
10    char buffer[40];
11
12    if (pipe(pipefds) == -1)
13    {
14        // perror("pipe");
15        exit(EXIT_FAILURE);
16    }
17
18    char user_string[40];
19    printf("Enter a String that you wanna send via the Pipe command : ");
20    scanf("%s", user_string);
21    pid_t pid = fork();
22
23    if (pid == -1)
24    {
25        exit(EXIT_FAILURE);
26    }
27
28    if (pid > 0)
29    {
30        printf("In the parent rn. \n");
31        printf("Writing User String to pipe...: ");
32        printf("%s\n", user_string);
33        write(pipefds[1], user_string, 40);
34        printf("Done.\n\n");
35    }
36    if (pid == 0)
37    {
38        close(pipefds[1]);
39        printf("In the child rn. \n");
40        printf("Reading PIN from pipe...\n");
41        read(pipefds[0], buffer, 40);
42        printf("PIN from pipe: %s\n", buffer);
43        printf("Done.\n\n");
44    }
45    close(pipefds[0]);
46
47    return EXIT_SUCCESS;
48 }
49 void main()
50 {
51     read_write_eg();
52 }
```

Listing 1: Assignment 6.Cpp

2 Input and Output

```
1 Enter a String that you wanna send via the Pipe command : assignment6
2 In the parent rn.
3 Writing User String to pipe...: assignment6
4 Done.
5
6 In the child rn.
7 Reading PIN from pipe...
8 PIN from pipe: assignment6
9 Done.
```

Listing 2: Input and Output.Cpp