



Usman Institute of Technology

Department of Computer Science Fall 2022

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Course: Operating Systems (CS312)

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OS Lab#11
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1. Modify Example code to pass your name from parent to child process and display it by concatenating with your roll number and department. Take your name as user input and pass it as command line argument.

```
from multiprocessing import Process, Pipe
import sys

def f(conn):
    name = conn.recv()
    print(f"Hi {name}, Your roll no is 20b-115-se")
    conn.close()

if __name__ == '__main__':
    parent_conn, child_conn = Pipe()
    name = sys.argv[1]
    p = Process(target=f, args=(child_conn,))
    p.start()
    parent_conn.send(name)
    p.join()
```

Output:

```
PS C:\Users\hp\Desktop\Lab#11> python task1.py waleed
Hi waleed, Your roll no is 20b-115-se
PS C:\Users\hp\Desktop\Lab#11> █
```

2. Write a Python program in which child process put the square of each number from 1 to 5 (exclusive) on pipe. After the child process has finished its execution, we get the data from the pipe in parent process.

```
from multiprocessing import Process, Pipe

def child_process(conn):
    for i in range(1, 5):
        conn.send(i**2)
    conn.close()

if __name__ == '__main__':
    parent_conn, child_conn = Pipe()
    p = Process(target=child_process, args=(child_conn,))
    p.start()
    for i in range(1, 5):
```

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```
print(parent_conn.recv())  
p.join()
```

Output:

```
PS C:\Users\hp\Desktop\Lab#11>  
1  
4  
9  
16  
PS C:\Users\hp\Desktop\Lab#11>
```