Assignment No. 2

Process control System calls

AIM : The demonstration of fork execue &
wait system calls along with Zombie
and orphan states :
a. Implend the C program in which
main program accepts the integers to be
stored. Main program uses the FORK
system call to create a new process
called a child process. Paren process
sort the integers using sorting algorithm
& waits for child process using WAIT
system call to sort the integers using
any sorting algorithm. Also demonstrate
zombie & orphan states.

b. Implement the C program in which
main program accepts an array. Main
program uses the FORK system call to
create a new process called a child process:
parent process sorts an array & passes the
sorted array to child process through
the command line arguments of EXECVE
system call. The child process uses
EXECVE system call to load new program
which display array in reverse orderd

OBJECTIVES : To study

3. process control
4. zombie & orphan processes

THEORY :
process :
A process is the basic active entity in most operating-system models. A process is a program in execution in memory or in other words, an instance of a program in memory. Any program executed creates a process. A program can be a command, a shell script, or any highly executable or any application.

Practice Assignments

Example 1
printing the process ID

```
#include <stdio.h>
#include <unistd.h>
int main ()
{
    printf(" The process ID is %d\n",
    getpid ());
    printf(" The parent process ID is %d\n", (int) getppid ();
    return 0;
}
```