Process Management

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1. Write a program to execute ls , pwd & cal sequentially

   a) Using system( )

   b) Using exec( )

   Hint : use fork().

2. Write a program to execute a command with its arguments given at command line.

   i/p : ./a.out ls –l

   ./a.out cal 2011.

3. Observation program :

   main()

   {

         printf("before %d and %d\n",getpid(),getppid());

         fork();

         printf("1: %d and %d\n",getpid(),getppid());

         fork();

         printf("2: %d and %d\n",getpid(),getppid());

         fork();

         printf("3: %d and %d\n",getpid(),getppid());

   }

   Observe the o/p of this above programme and draw its process generation diagram with its instruction ,processed, parent process id of the new process which is generated and compare with output.

4. Write a program to pass num of commands each seperated by delimiter(;)

through command line.

   I/p : ./a.out ls;pwd;cal;date

5. Write a program to execute the no of commands from command line

   a) using system( )

   b) using exec()

   Note : no of new process create must be euql to no of cmd given at
command line)

6. Write a program to creat 3 new jobs , in such a manner that all the 3 new jobs
should have common parent.

   x------□bash

   x+1 ---□ x

   x+2----□x

   x+3---□x

7. Modify the above program .So that no two jobs have the common parent.

   {each job have different parent).

   x------□bash

   x+1 ---□ x

   x+2----□x+1

   x+3---□x+2

8. In the above given prog execute ls, pwd ,cal ,date command by x,x+1,x+2,x+3
respectively.

9. In the above program the o/p sequence must be date->pwd->cal->ls

10. In the above program do not use sleep but o/p sequence must be child first & then parent.

11. Write a program to create a three child process from the common parent use random delay between 1to 10 sec in each child. Use the exit value in such a manner so that parent should know the sequence of the child exits.

   Hint : while(wait(&status)!=-1)

   {

   　　　;

   }

12. Modify the above program so that parent will wait uptp child -2 exit.sp after child-2 parent will laso exit and another child become may be in Zombie or Orphan.

13. Write a program to i/p 2 small(1 to 50) integers from command line and add two interger in child process and print the sum in parent process.

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Dear students, if any mistakes found, kindly inform to me.

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