Ex. No.: 5
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SYSTEM CALLS PROGRAMMING

Aim:

To experiment system calls using fork(), execlp() and pid() functions.

Program:

```
#include <stdio.h>
#include <stdlib.h>
#include <unistd.h>

int main() {
   int pid;
   pid = fork();
   if (pid == -1) {
      printf("CHILD PROCESS NOT CREATED\n");
      exit(0);
   }
   printf("THIS LINE EXECUTED TWICE\n");
   if (pid == 0) {
      printf("Child Process ID: %d\n", getpid());
      printf("Parent Process ID of Child: %d\n", getppid());
   }
   else {
      printf("Parent Process ID: %d\n", getpid());
      printf("Parent's Parent Process ID: %d\n", getppid());
   }
   printf("IT CAN BE EXECUTED TWICE\n");
   return 0;
}
```

Output:

```
THIS LINE EXECUTED TWICE
Parent Process ID: 66645
Parent's Parent Process ID: 66638
IT CAN BE EXECUTED TWICE
THIS LINE EXECUTED TWICE
Child Process ID: 66646
Parent Process ID of Child: 66645
IT CAN BE EXECUTED TWICE
```

Result:

The system calls fork(), getpid(), and getppid() were successfully used to create a child process, print process details, and show that both parent and child execute the same code.