



**Q1. Write a program in c to execute child process only**

**CODE:**

```
~/rajgaurav$ vi first.c
```

```
#include<stdio.h>
#include<stdlib.h>
#include<unistd.h>
#include <termios.h>
#include <sys/wait.h>
int main()
{
    int status, i=0;
    int pid= fork();
    if(pid==0)
    {
        while(i<10)
        {
            printf("\nChild Process");
            i++;
            sleep(1);
        }
    }
    else
    {
        waitpid(pid, &status, 0);
        if(WIFEXITED(status))
        {
            printf("\n Child process terminated normally");
        }
    }
    return 0;
}
```

**OUTPUT:**

```
~/rajgaurav$ gcc first.c
```

```
~/rajgaurav$ ./a.out
```

```
Child Process
Child Process
Child Process
Child Process
Child Process
Child Process
Child Process
Child Process
Child Process
Child Process
Child process terminated normally
```



**Q2. Write a program in c to represent zombie process.**

**CODE:**

```
~/rajgaurav$ vi zombie.c
#include<stdio.h>
#include<stdlib.h>
#include<unistd.h>

int main()
{
    int pid= fork();
    if(pid==0)
    {
        printf("\nYou are in Child Process");
        exit(1);
    }
    else
    {
        if(pid>0)
        {
            sleep(5);
            printf("\n You are in parent process with pid %d",getpid());
            exit(1);
        }
        else
        {
            printf("\n Failed!!");
        }
    }
    return 0;
}
```

**OUTPUT:**

```
~/rajgaurav$ gcc Zombiee.c
~/rajgaurav$ ./a.out
```

```
You are in Child Process
You are in parent process with pid 1657~/rajgaurav$
```



**Q3. Write a program in c to represent orphan process.**

**CODE:**

```
~/rajgaurav$ vi orphan.c
#include<stdio.h>
#include<stdlib.h>
#include<unistd.h>

int main()
{
    int pid= fork();
    if(pid==0)
    {
        sleep(5);
        printf("\nYou are in Child Process");
        exit(1);
    }
    else
    {
        if(pid>0)
        {
            printf("\n You are in parent process with pid %d",getpid());
            exit(1);
        }
        else
        {
            printf("\n Failed!!");
        }
    }
    return 0;
}
```

**OUTPUT:**

```
~/rajgaurav$ gcc orphan.c
~/rajgaurav$ ./a.out
```

```
You are in parent process with pid 1514~/rajgaurav$
You are in Child Process
```