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sid@sid-VirtualBox:~/Desktop\$ cat Pandya_Prog1_1.c

```
#include<stdio.h>
#include<sys/types.h>
#include<unistd.h>
#include<stdlib.h>
#include<time.h>
#include<sys/wait.h>

int main(int argc, char* args[] )
{
    char c;
    int chck_status;
    pid_t child_id=fork();
    clock_t begin,end;

    if(child_id>=0)
    {
        if(child_id==0)
        {
            printf("\n  Child process starts: \n");
            printf("  Enter a character: \n");
            scanf(" %c", &c);
            printf("  ASCII value of %c = %d\n", c, c);

            exit(0);
        }
        else
        {
```



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```
clock_t begin,end;

if(child_id>=0)
{
    if(child_id==0)
    {

        printf("\n  Child process starts: \n");
        printf("  Enter a character: \n");
        scanf("  %c", &c);
        printf("  ASCII value of %c = %d\n", c, c);

        exit(0);

    }
    else
    {

        begin=clock();
        printf("\n  CPU time begins:%ld",begin);
        wait(&chck_status);
        end = clock();
        printf("\n  CPU time ends:%ld",end);

    }
}

double diff= (double)(end - begin);
printf("\n  Difference in time is:%f\n",diff);

return 0;
```

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sid@sid-VirtualBox:~/Desktop\$ cat Pandya_Prog1_2.c

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

```
void Sighandler()
{
```

```
    printf("\n Signal recieved from handler!\n");
```

```
}
```

```
void go_to_sleep(int seconds)
{
```

```
    sigset_t signal_masking;
```

```
    struct sigaction current_action,old_action;
```

```
    sigemptyset(&signal_masking);
```

```
    if(sigaddset(&signal_masking,SIGTERM)==-1||sigprocmask(SIG_SETMASK,&sig
nal_masking,0)==-1)
```

```
        perror("ERROR-Error in signal configurations...");
```

```
    current_action.sa_handler=(void*)Sighandler;
```

```
    current_action.sa_flags=0;
```

```
    if(sigaction(SIGALRM,&current_action,&old_action)==-1)
```

```
        perror("ERROR-Error in signal action...");
```

```
    alarm(seconds);
```




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```
{
    sigset_t signal_masking;
    struct sigaction current_action,old_action;
    sigemptyset(&signal_masking);

    if(sigaddset(&signal_masking,SIGTERM)==-1||sigprocmask(SIG_SETMASK,&sig
nal_masking,0)==-1)
        perror("ERROR-Error in signal configurations...");

    current_action.sa_handler=(void*)Sighandler;

    current_action.sa_flags=0;

    if(sigaction(SIGALRM,&current_action,&old_action)==-1)
        perror("ERROR-Error in signal action...");

    alarm(seconds);
    pause();
}

int main()
{
    printf("\n Process Started \n");
    printf("\n It will sleep for 5 sec \n");
    go_to_sleep(5);
    printf("\n Return from Sleep.\n");
    return 0;
}

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```