操统实习经验介绍

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Overview

- Problems in the Labs
- About the Quiz
- Experiences
- Other Tips

Problems in the Labs

- The Lab1 seems extremely hard
  - Do the illustration yourself
  - Eg: The Stack(.asm)
    - f0100040: push   %ebp
    - f0100041: mov   %esp,%ebp
    - f0100043: push   %ebx
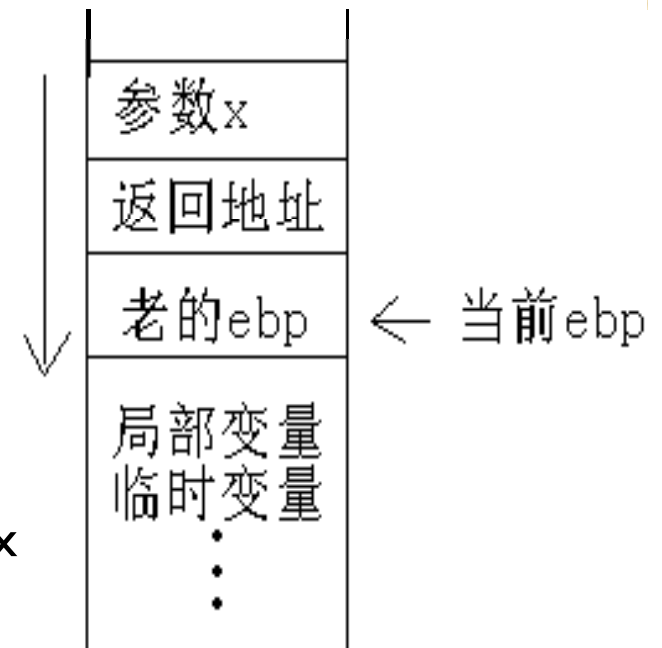   - f0100044: sub $0xc,%esp

    #为函数局部临时变量预留空间
    - F0100047: mov   0x8(%ebp),%ebx

    #把参数x放到ebx里
    - F010004a: push   %ebx

    #把参数压栈

Problems in the Labs

- Lab1
  - **Materials**
    - Good for your English reading comprehension
    - Google：ELF文件格式, x86寻址方式
  - **Questions in Exercise**
    - Recommended (cprintf series)
  - **Set up Some Manners**
    - Backup before the next lab, or even function
    - Record the files of changes in the previous lab

    ----------------**Important!!**

Problems in the Labs

- Gmake
  - a)如果只改了kern文件夹里的东西，则不用gmake clean，直接gmake就可以。
  - b)如果改了user文件夹里的东西，则需要gmake clean才能正确运行。
  - c)如果make grade结束后，一定要先clean之后再gmake才能正确运行。
- 代码优化
  - 能短尽量短，能缩成一个if的

Problems in the Labs

Amazing Mistake(time or code too long?)

for(addr = 0; addr < UTOP-PGSIZE; addr +=
PGSIZE)
- duppage(envid , VPN(addr));

- for(i=0; i< UTOP - PGSIZE; i+=PGSIZE)
- {
- if((vpd[PDX(i)]&PTE_P)==0)
- i+=(PTSIZE-PGSIZE);
- else if(vpt[VPN(i)]&PTE_P)
- duppage(envid,VPN(i));
- }

Problems in the Labs

- Passed Randomly
  - Always stands for deficiency
  - Eg: The races and the time out stuff
- Process between the '.S' file and the '.c' file.
  - Hard to Imagine, needs to be traced.
  - Example in the next page

Problems in the Labs

- call trap　　　　#调用trap.c里的trap函数

    ……

- void env_pop_tf(struct Trapframe *tf)
    - { __asm __volatile("movl %0,%%esp\n"
    - "\tpopal\n"
    - "\tpopl %%es\n"
    - "\tpopl %%ds\n"
    - "\taddl $0x8,%%esp\n"
    - "\tiret"
    - : : "g" (tf) : "memory");
    - panic("iret failed");
    - }

About the Quiz

Draw the pictures (the best way)

- Flow Histogram
    - Interruption process
- RAM arrangement   **Knowledge**
- Stack state

Numbers

- The size of page dir / The size of block /... etc.

Filling in the blanks or Rewrite

- Important Functions   **Codes**
    - fork.c (Copy-on-Write Fork)

Experiences

- **按部就班的完成**
  - Questions in the /* */
- **细节决定成败**
  - Eg: s->following by steps
  - Eg: 1. if(vpt[p] && vpd[p])   **wrong**
  - 2. if(vpd[p] && vpt[p])   **right**
  - Privileges / NULL is crucial
  - 替换文件的时候(env.c)
- **良好的编程习惯**
  - Backup + Translations

Experiences in the Report

- Be Careful
  - Every lab the teaching assistants give your score according to the report
- The code
  - Not recommended
  - Visual Studio 2005(illustration)
- Some Summery and Experiences
  - Perfect~~~~

Other Tips

- 虚拟机中的Linux和Windows平台共享文件夹的方法
  - http://hi.baidu.com/gowiththewind1/blog/item/f37ceb8f4da3c6f9513d92b7.html
- Challenge
  - Change Color(Term)
  - Presentation Work(Structure of RAM)
- Grade File (测试脚本**grade.sh**)
  - Relevant to Time Out

祝大家顺利完成操统实习～～

धन्यवाद
Hindi

Спасибо
Russian

תודה רבה
Hebrew

Gracias
Spanish

Grazie
Italian

^ ^

شكراً
Arabic

Thank You

English

Obrigado
Portuguese

多謝
Traditional Chinese

Merci
French

Danke
German

ありがとうございました
Japanese

감사합니다 감사합니다
감사합니다 감사합니다
감사합니다

多谢
Simplified Chinese

Korean

ขอบคุณ
Thai

நன்றி
Tamil