

Linux 程序设计作业

Shell 脚本编写

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1. 编写一个 shell 脚本显示 HOME、PATH、SHLV、LOGNAME 变量的值。

```
#####
# File Name: e1.sh
# Author: liujing
# mail: jingliu.cs@gmail.com
# Created Time: 2015 年 01 月 22 日 星期四 23 时 09 分 09 秒
#####
#!/bin/bash

echo "$HOME"
echo "$PATH"
echo "$SHLV"
echo "$LOGNAME"

liujing@ubuntu:~/workspace/linux_programming/homework/linux_homework/h2$ sh e1.s
h
/home/liujing
/usr/lib/lightdm/lightdm:/usr/local/sbin:/usr/local/bin:/usr/sbin:/usr/bin:/sbin
:/bin:/usr/games
1
liujing
```

2. 用 while 语句重写下列 Shell 脚本程序，以实现相同的功能：

```
#!/bin/sh
clear
select item in Continue Finish
do
case "$item" in
    Continue) ;;
    Finish) break ;;
    *) echo "Wrong choice! Please select again!" ;;
esac
done

#####
# File Name: e2.sh
# Author: liujing
# mail: jingliu.cs@gmail.com
# Created Time: 2015 年 01 月 22 日 星期四 23 时 15 分 47 秒
#####
#!/bin/bash

echo '1) Continue'
echo '2) Finish'

#read -p "#?" var
var=1

while [ "$var" -ne 2 ]
do
    read -p "#?" var
    if [ "$var" -ne 1 -a "$var" -ne 2 ];then
```

```

        echo 'Wrong choice! Please select again'
    fi
done

exit 0

```

```

liujing@ubuntu:~/workspace/linux_programming/homework/linux_homework/h2$ ./e2.sh
1) Continue
2) Finish
#?1
#?3
Wrong choice! Please select again
#?4
Wrong choice! Please select again
#?5
Wrong choice! Please select again
#?2
liujing@ubuntu:~/workspace/linux_programming/homework/linux_homework/h2$

```

3. 编写一个 shell 脚本，显示 Fibonacci 数列的前 10 个数字。(Fibonacci 数列: $a[i+2]=a[i+1]+a[i]$, $a[1]=0$, $a[2]=1$, $i \geq 1$)

```

#####
# File Name: e3.sh
# Author: liujing
# mail: jingliu.cs@gmail.com
# Created Time: 2015 年 01 月 23 日 星期五 00 时 09 分 19 秒
#####
#!/bin/bash

```

```

echo '0'
echo '1'

```

```

a0=0
a1=1
i=1

```

```

while [ "$i" -lt 9 ]
do
    a2=$((a0+a1))
    echo "$a2"
    a1=$a2
    a0=$a1
    i=$((i+1))
done

```

```

done
exit 0

```

```

liujing@ubuntu:~/workspace/linux_programming/homework/linux_homework/h2$ ./e3.sh
0
1
1
2
4
8
16
32
64
128
liujing@ubuntu:~/workspace/linux_programming/homework/linux_homework/h2$

```