

P1

Task1

1

```
evan@evan-TUF-Gaming-FX505DT-FX95DT:~$ echo $SHELL  
/bin/bash
```

命令程序在此电脑上的路径

2

```
evan@evan-TUF-Gaming-FX505DT-FX95DT:~$ mkdir -p tmp/missing
```

create a new directory called missing under /tmp

3-4

```
evan@evan-TUF-Gaming-FX505DT-FX95DT:~$ cd tmp/missing/  
evan@evan-TUF-Gaming-FX505DT-FX95DT:~/tmp/missing$ touch semester
```

在tmp/missing下创建文件 名为semester

5

```
evan@evan-TUF-Gaming-FX505DT-FX95DT:~/tmp/missing$ echo '#!/bin/sh  
> curl --head --silent https://missing.csail.mit.edu' > semester
```

将”内的内容写入semester文件中，用

6-7

```
evan@evan-TUF-Gaming-FX505DT-FX95DT:~/tmp/missing$ ./semester
bash: ./semester: 权限不够
evan@evan-TUF-Gaming-FX505DT-FX95DT:~/tmp/missing$ sh semester
HTTP/2 200
server: GitHub.com
content-type: text/html; charset=utf-8
last-modified: Thu, 08 Aug 2024 20:16:01 GMT
access-control-allow-origin: *
etag: "66b52781-205d"
expires: Sun, 11 Aug 2024 13:25:16 GMT
cache-control: max-age=600
x-proxy-cache: MISS
x-github-request-id: B7BB:3EE4C3:40D4EF:434A78:66B8B964
accept-ranges: bytes
age: 0
date: Mon, 12 Aug 2024 06:30:25 GMT
via: 1.1 varnish
x-served-by: cache-lon420090-LON
x-cache: HIT
x-cache-hits: 0
x-timer: S1723444225.165142,VS0,VE83
vary: Accept-Encoding
x-fastly-request-id: aacbe5b6ee7556746669415d692e36290e7d0d6e
content-length: 8285
```

sh 可以执行 ./不能执行 因为sh命令不需要文件执行权限 ./命令需要文件执行权限

8-9

```
evan@evan-TUF-Gaming-FX505DT-FX95DT:~/tmp/missing$ chmod +x semester
evan@evan-TUF-Gaming-FX505DT-FX95DT:~/tmp/missing$ ./semester
HTTP/2 200
server: GitHub.com
content-type: text/html; charset=utf-8
last-modified: Thu, 08 Aug 2024 20:16:01 GMT
access-control-allow-origin: *
etag: "66b52781-205d"
expires: Mon, 12 Aug 2024 06:40:13 GMT
cache-control: max-age=600
x-proxy-cache: MISS
x-github-request-id: 0B96:1AAE09:32F2577:33DC4DA:66B9ABF5
accept-ranges: bytes
age: 256
date: Mon, 12 Aug 2024 06:34:29 GMT
via: 1.1 varnish
x-served-by: cache-lhr-egll1980022-LHR
x-cache: HIT
x-cache-hits: 0
x-timer: S1723444469.289368,VS0,VE1
vary: Accept-Encoding
x-fastly-request-id: 10cd9947c8a366729da634119af2dada34c5c1f5
content-length: 8285
```

给semester开放了执行权限，./命令就能使用

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```
evan@evan-TUF-Gaming-FX505DT-FX95DT:~/tmp/missing$ ./semester | grep -i last-modified | sudo tee /home/last-modified.txt
last-modified: Thu, 08 Aug 2024 20:16:01 GMT
```

将semester的输出中last-modified一行输入到home目录中last-modified.txt文件中

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```
evan@evan-TUF-Gaming-FX505DT-FX95DT:~$ echo '#!/bin/sh
> cd /sys/class/power_supply/BAT0
> cat capacity' > /home/evan/power_level
evan@evan-TUF-Gaming-FX505DT-FX95DT:~$ sh power_level
100
```

将查看电量参数程序写入power_level文件中并执行

Task4