



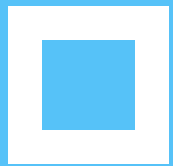
Public PC Guard

Team 4. GeonRyun Lee
Yerim Chu

JaeKyung You
WooJoo You

KyungTae Kang





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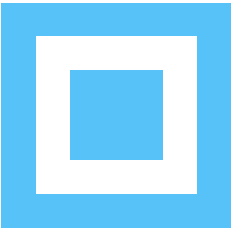
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Public PC Guard

1. Outline of Task

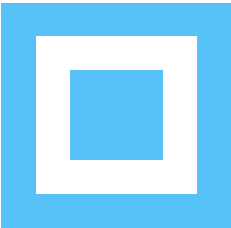


1. Outline of Task



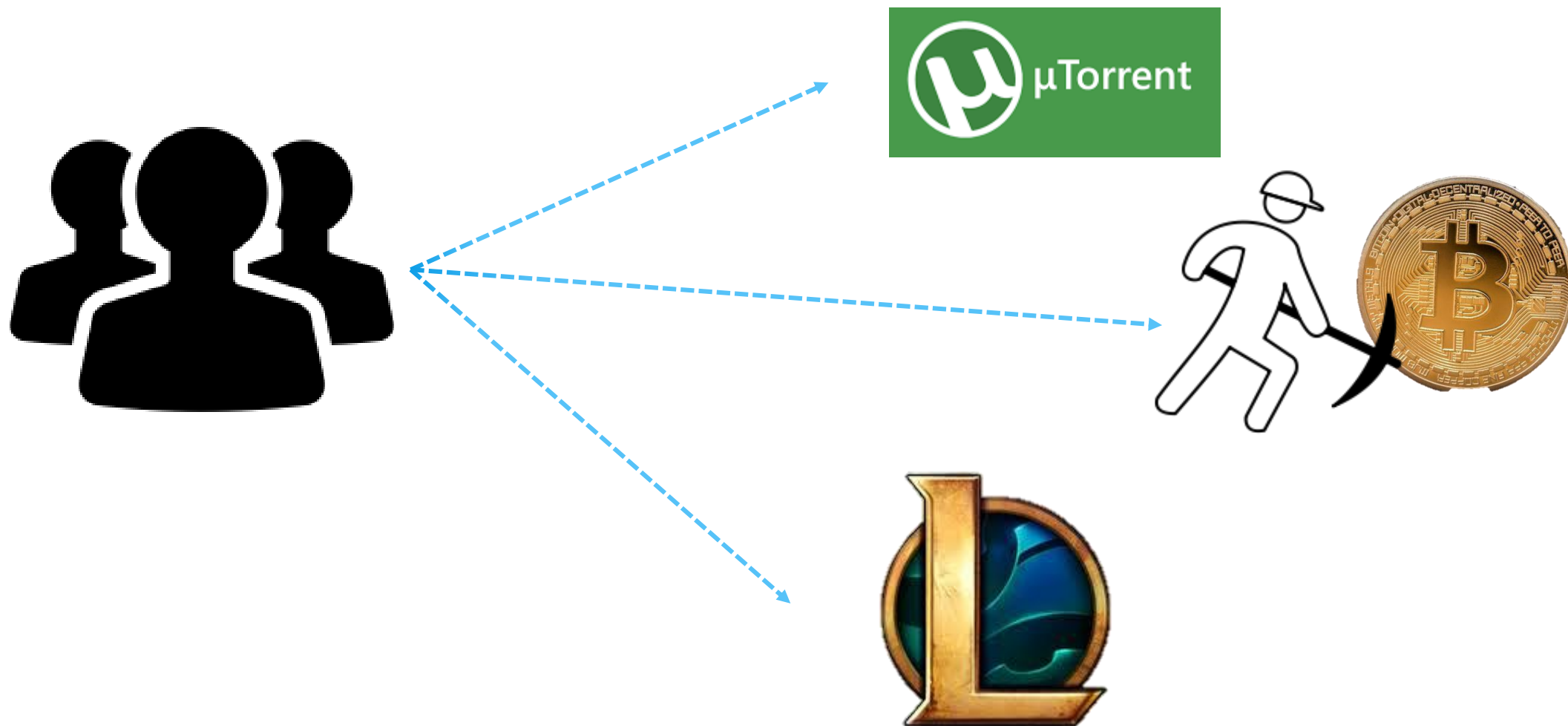
Public PC Guard

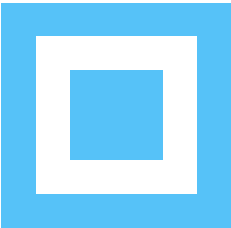
2. The Necessity and Expected Effect of Task



2. The Necessity and Expected Effect of Task

1) The Present Condition of Existing Technologies, Problems and Improvement Measures



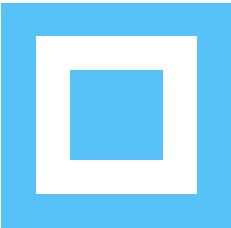


2. The Necessity and Expected Effect of Task

1) The Present Condition of Existing Technologies, Problems and Improvement Measures

Who Are You?





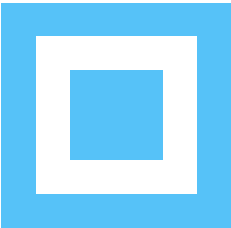
2. The Necessity and Expected Effect of Task

2) Expected effects due to task development or production



Public PC Guard

3. Task goals and content

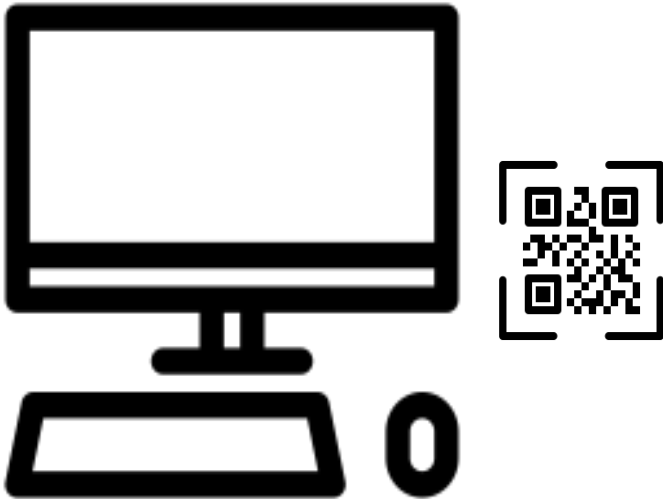


3. Task goals and content

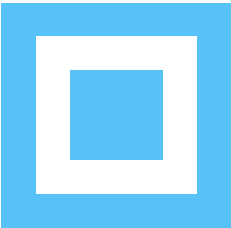
1-1) PC users



Only Authorized Users



Public PC



3. Task goals and content

1-2) Manage by collecting PC logs

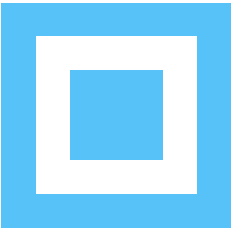


Public PC



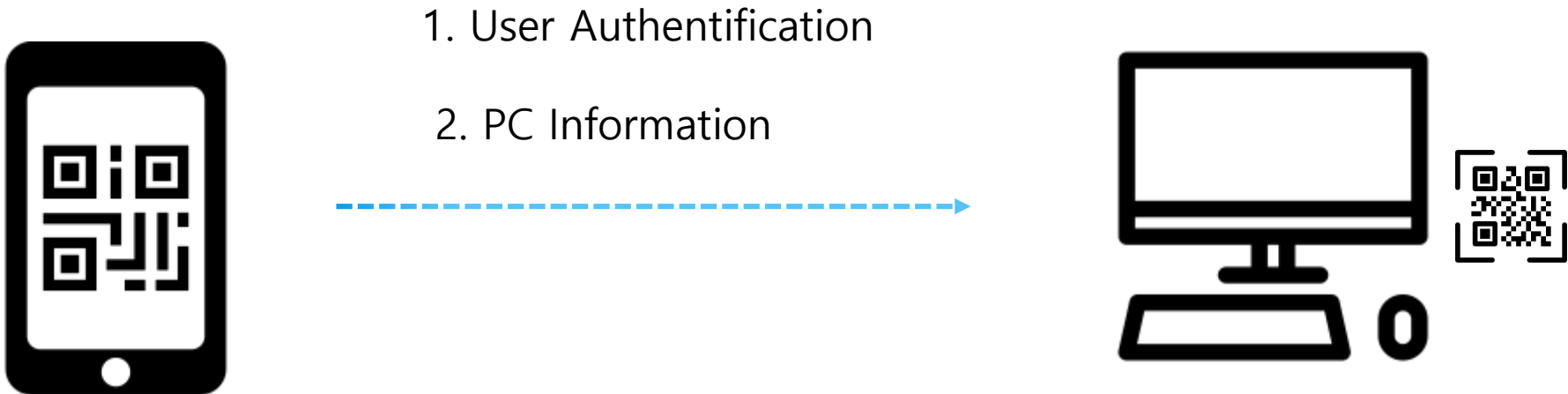
Index	Process	Start_proc
0	Chorme.exe	2019.04.18 132005
1	Cmd.exe	2019.04.18 135540

Log table

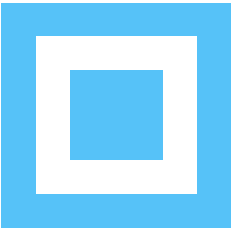


3. Task goals and content

2-1) Smart Application

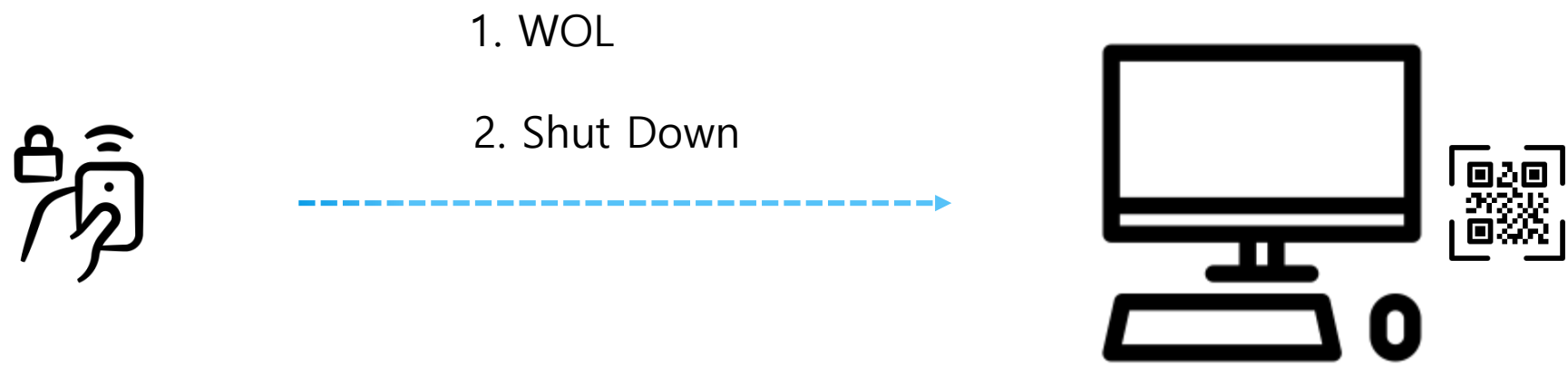


We will check your identity through smart phone application.

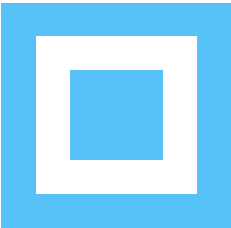


3. Task goals and content

2-2) PC Remote control

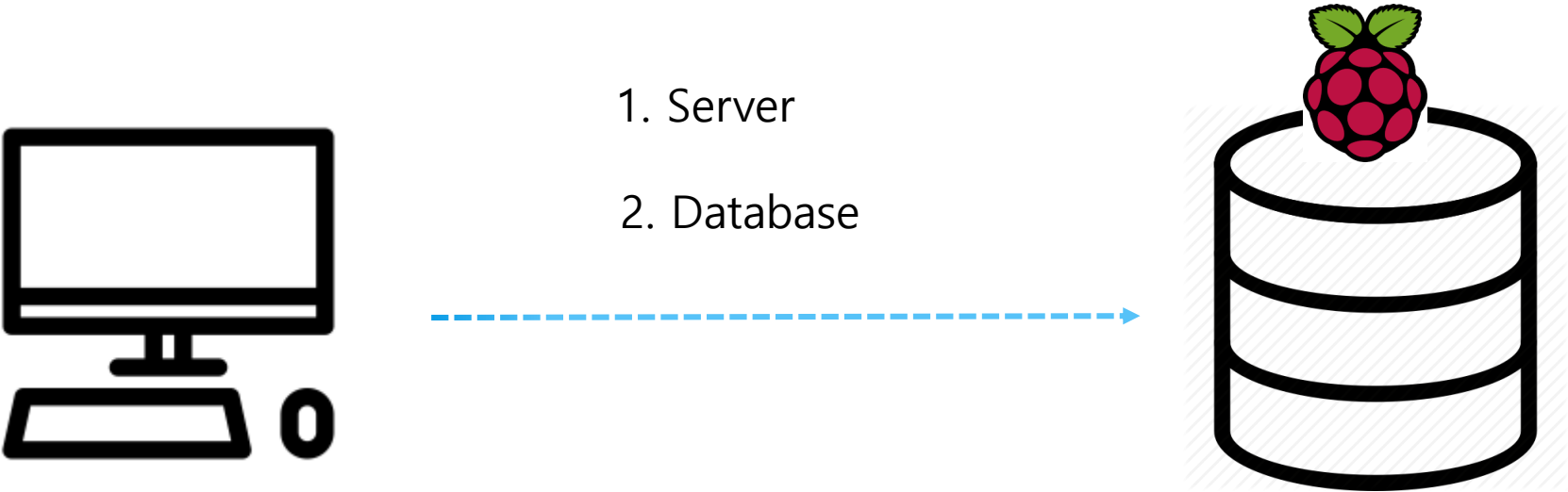


The PC in the public pc room can be remotely booted and the user can shut down the system if the pc is terminated.

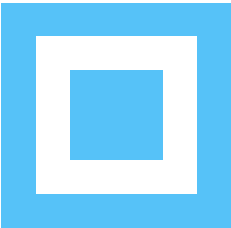


3. Task goals and content

2-3) Raspberry Pi

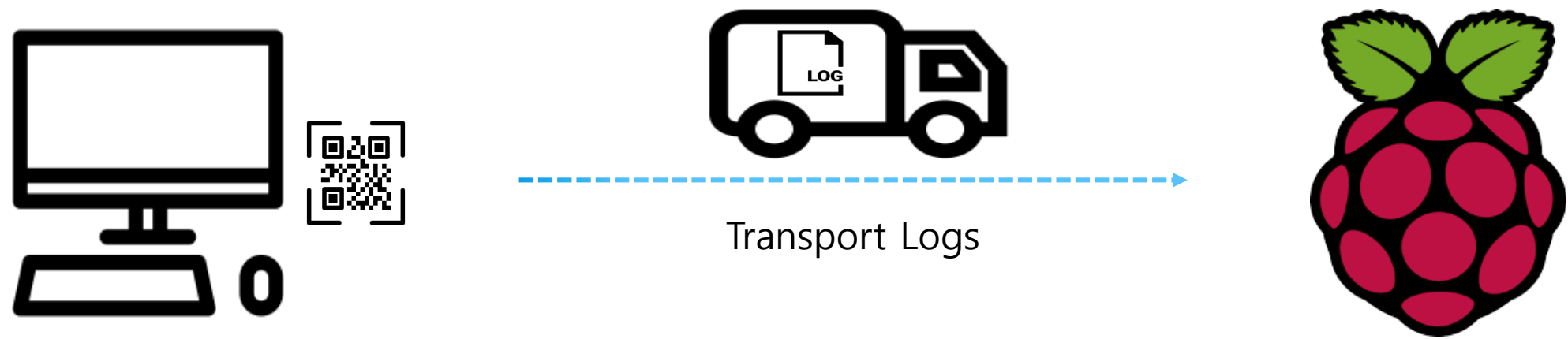


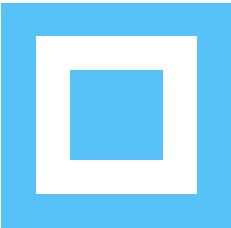
Applications will be installed on each PC to collect users' PC logs and send them to Raspberry Pi.



3. Task goals and content

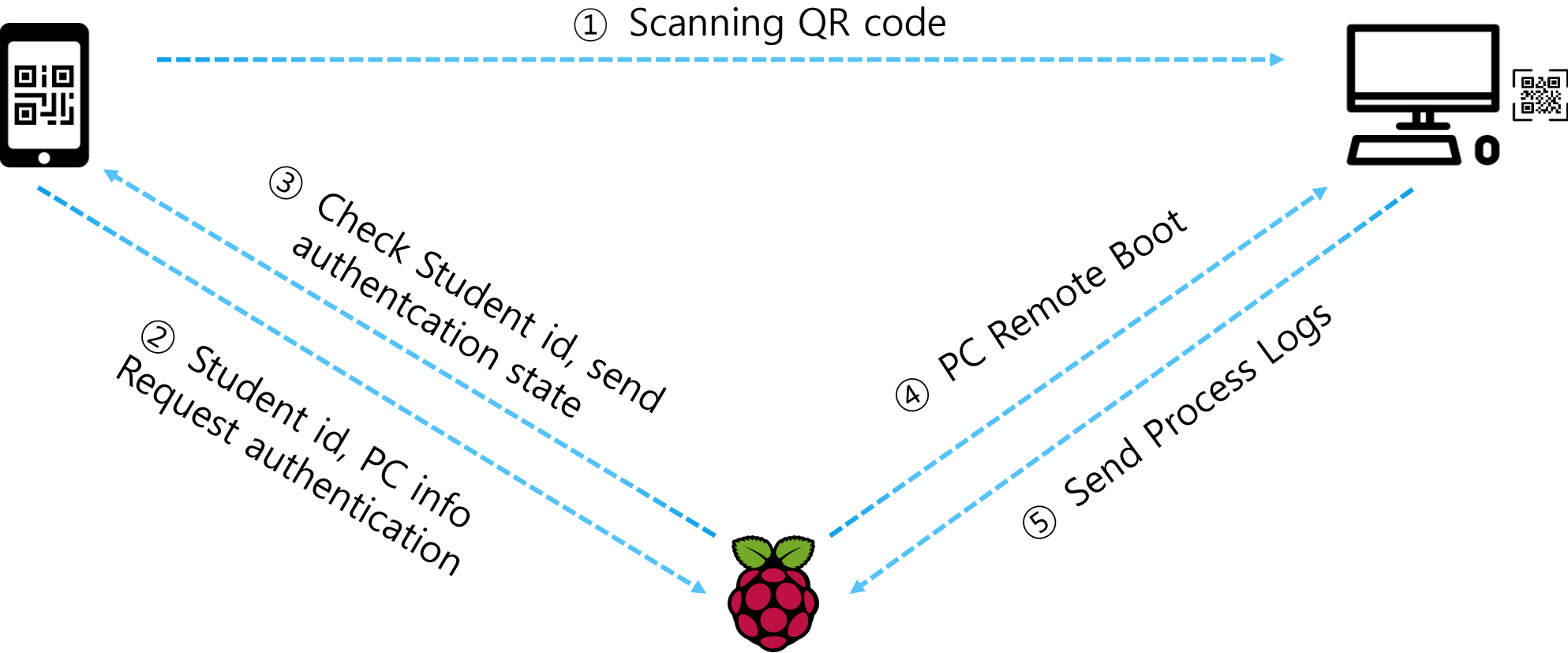
2-4) Manage Logs





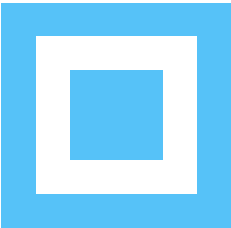
3. Task goals and content

3) Summary



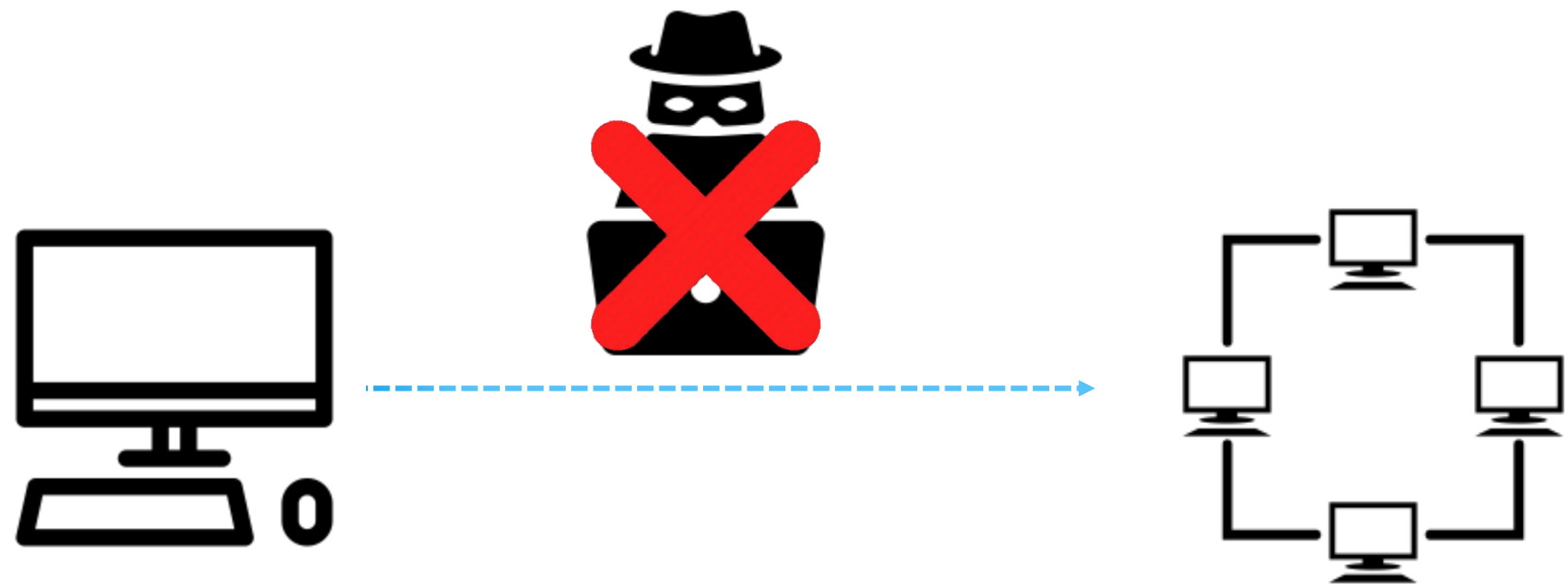
Public PC Guard

4. How to Perform a Task

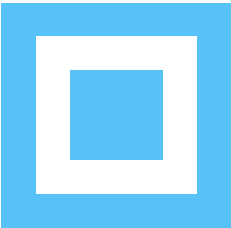


4. How to Perform a Task

1) Task Performance




Prevents the user from using the PC indiscreetly.



4. How to Perform a Task

2-1) Detail - Application





QR인증 APP
학번/비밀번호

아이디

비밀번호

로그인

비밀번호 찾기

Log-in

QR코드 인증



Scanning QR code

정보보기

내 정보

20164285

PC정보

IT 7층 PC-32

인증확인

인증 처리 되었습니다.

확인

2019-04-03 13:35:44

종료확인

종료 처리 되었습니다.

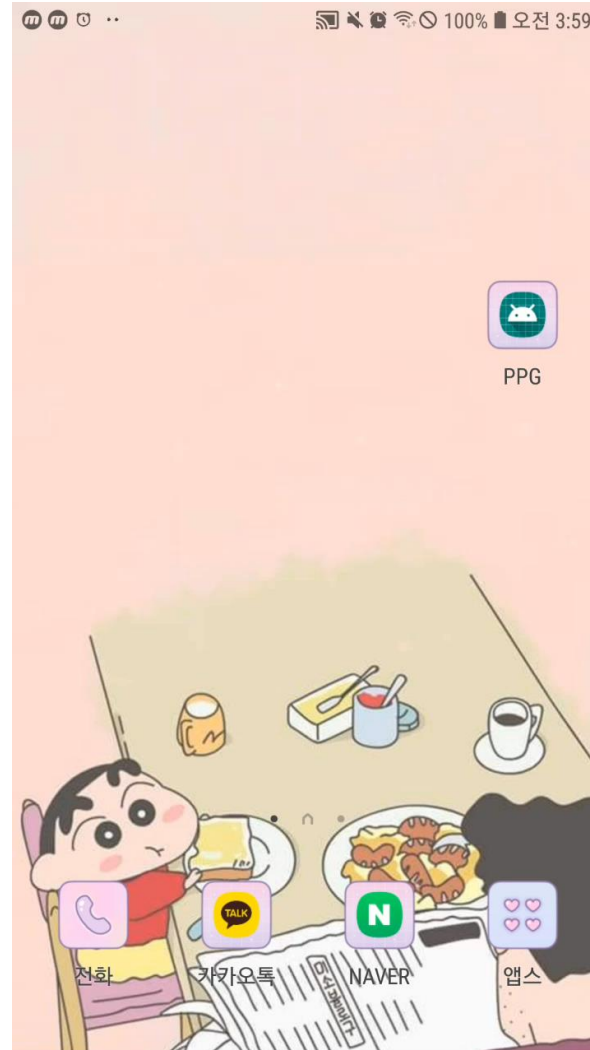
확인

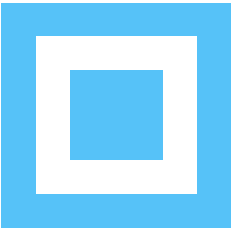
2019-04-03 15:00:00

PC Information

4. How to Perform a Task

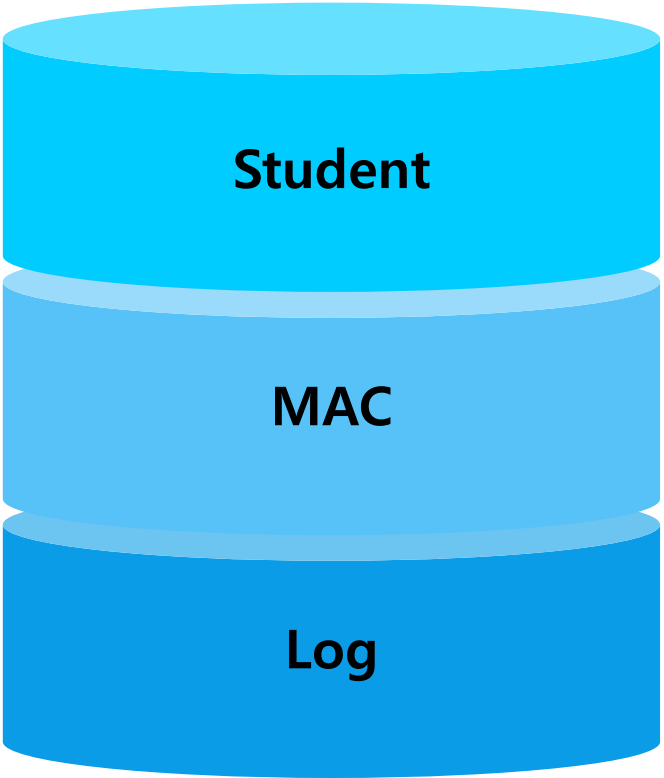
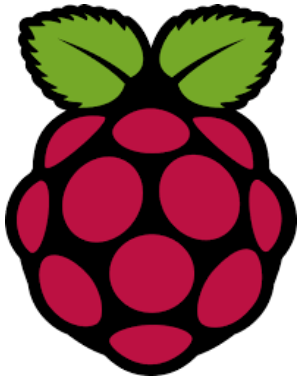
2-1) Detail - Application





4. How to Perform a Task

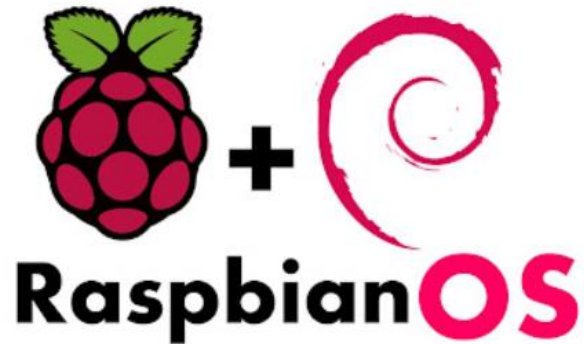
2-2) Detail – Raspberry Pi



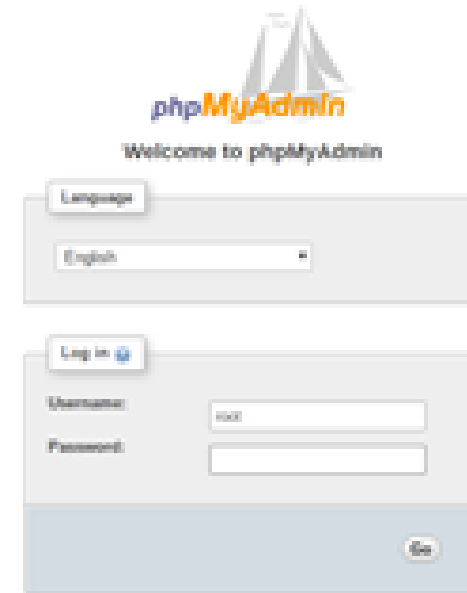


4. How to Perform a Task

2-2) Detail – Raspberry Pi



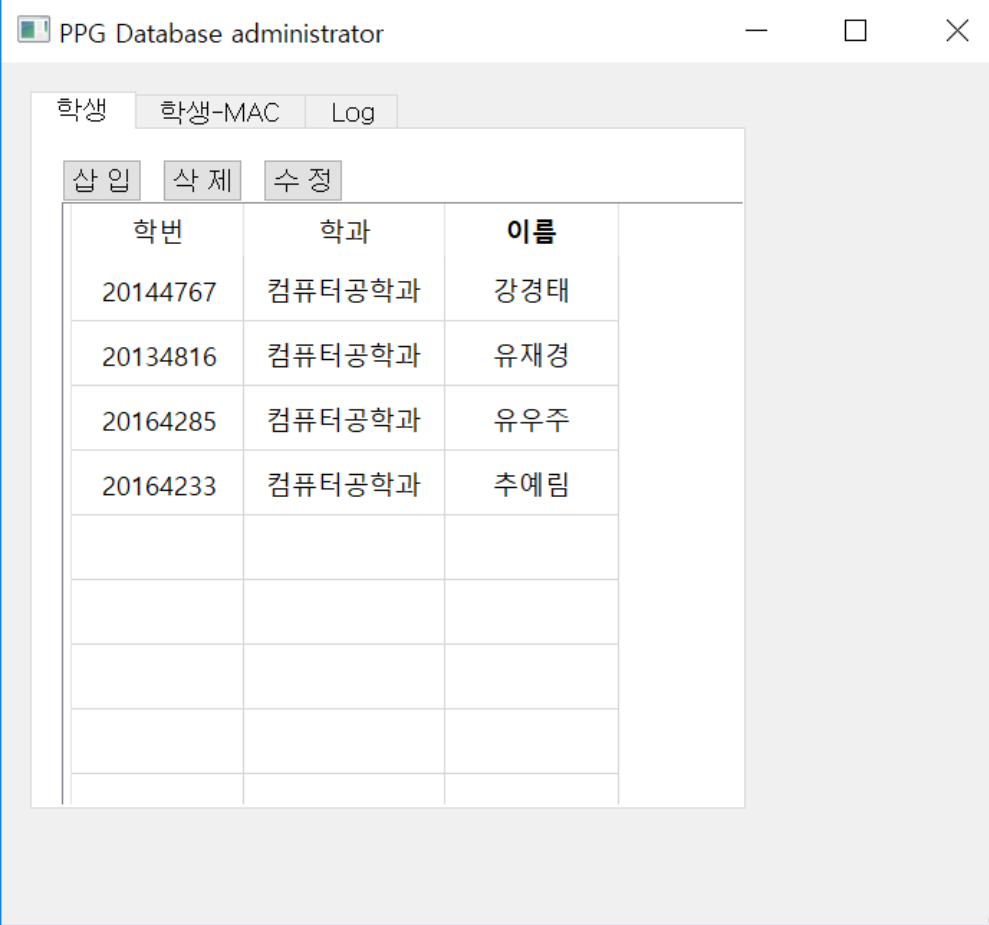
Raspbian install



Structure web server - Apache, MySQL, PHP

4. How to Perform a Task

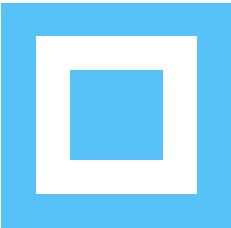
2-2) Detail – Raspberry Pi



The screenshot shows a window titled "PPG Database administrator". Inside the window, there are tabs for "학생" (Student), "학생-MAC", and "Log". Below the tabs, there are buttons for "삽입" (Insert), "삭제" (Delete), and "수정" (Modify). A table is displayed with three columns: "학번" (Student ID), "학과" (Department), and "이름" (Name). The table contains four rows of data.

학번	학과	이름
20144767	컴퓨터공학과	강경태
20134816	컴퓨터공학과	유재경
20164285	컴퓨터공학과	유우주
20164233	컴퓨터공학과	추예림

[PPG Database administrator]



4. How to Perform a Task

2-3) Detail – PC Remote control



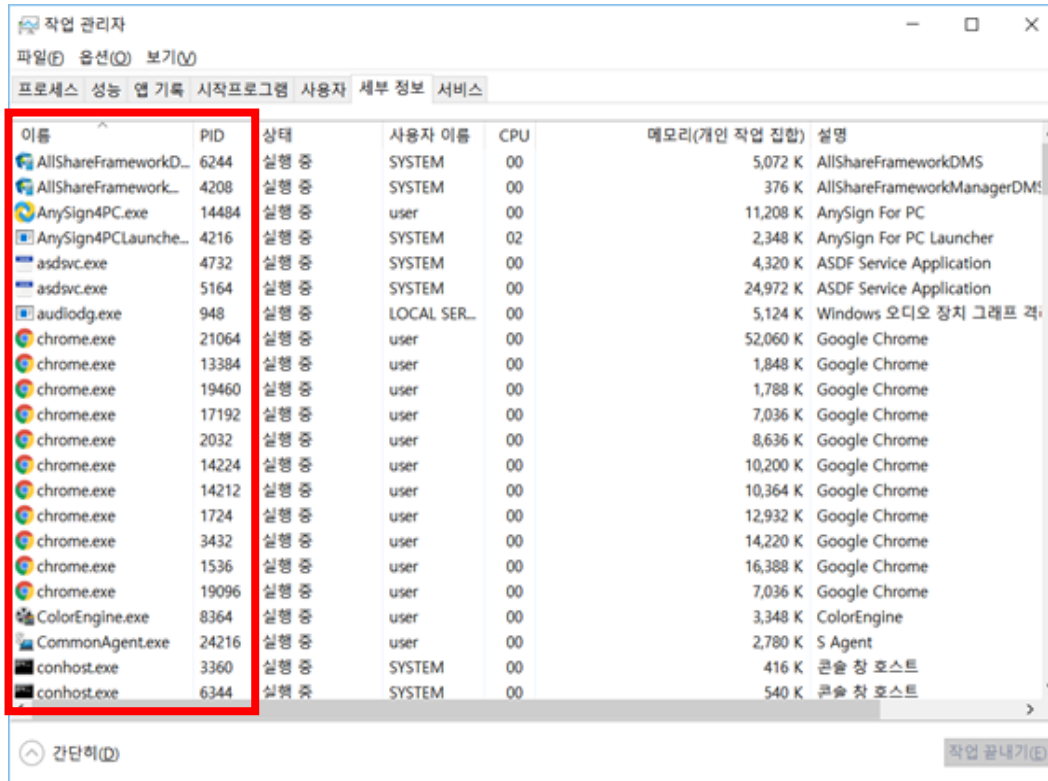
4. How to Perform a Task

2-3) Detail – PC Remote control



4. How to Perform a Task

2-4) Detail – PC Logs



작업 관리자

파일(F) 옵션(O) 보기(V)

프로세스 성능 열 기록 시작프로그램 사용자 세부 정보 서비스

이름	PID	상태	사용자 이름	CPU	메모리(개인 작업 집합)	설명
AllShareFrameworkD...	6244	실행 중	SYSTEM	00	5,072 K	AllShareFrameworkDMS
AllShareFramework...	4208	실행 중	SYSTEM	00	376 K	AllShareFrameworkManagerDMS
AnySign4PC.exe	14484	실행 중	user	00	11,208 K	AnySign For PC
AnySign4PCLaunche...	4216	실행 중	SYSTEM	02	2,348 K	AnySign For PC Launcher
asdsvc.exe	4732	실행 중	SYSTEM	00	4,320 K	ASDF Service Application
asdsvc.exe	5164	실행 중	SYSTEM	00	24,972 K	ASDF Service Application
audiodg.exe	948	실행 중	LOCAL SER...	00	5,124 K	Windows 오디오 장치 그래픽 커...
chrome.exe	21064	실행 중	user	00	52,060 K	Google Chrome
chrome.exe	13384	실행 중	user	00	1,848 K	Google Chrome
chrome.exe	19460	실행 중	user	00	1,788 K	Google Chrome
chrome.exe	17192	실행 중	user	00	7,036 K	Google Chrome
chrome.exe	2032	실행 중	user	00	8,636 K	Google Chrome
chrome.exe	14224	실행 중	user	00	10,200 K	Google Chrome
chrome.exe	14212	실행 중	user	00	10,364 K	Google Chrome
chrome.exe	1724	실행 중	user	00	12,932 K	Google Chrome
chrome.exe	3432	실행 중	user	00	14,220 K	Google Chrome
chrome.exe	1536	실행 중	user	00	16,388 K	Google Chrome
chrome.exe	19096	실행 중	user	00	7,036 K	Google Chrome
ColorEngine.exe	8364	실행 중	user	00	3,348 K	ColorEngine
CommonAgent.exe	24216	실행 중	user	00	2,780 K	S Agent
conhost.exe	3360	실행 중	SYSTEM	00	416 K	콘솔 창 호스트
conhost.exe	6344	실행 중	SYSTEM	00	540 K	콘솔 창 호스트

간단히(D) 작업 끝내기(E)

```
C:\Users\user>tasklist
```

이미지 이름	PID	세션 이름	세션#	메모리 사용
System Idle Process	0	Services	0	8 K
System	4	Services	0	148 K
Registry	96	Services	0	21,944 K
smss.exe	376	Services	0	1,000 K
csrss.exe	544	Services	0	4,304 K
wininit.exe	636	Services	0	4,944 K
csrss.exe	644	Console	1	5,632 K
services.exe	716	Services	0	12,360 K
lsass.exe	736	Services	0	15,832 K
svchost.exe	844	Services	0	3,056 K
WUDFHost.exe	868	Services	0	11,144 K
svchost.exe	876	Services	0	27,444 K
fontdrvhost.exe	912	Services	0	2,488 K
svchost.exe	1016	Services	0	15,684 K
svchost.exe	404	Services	0	7,136 K



4. How to Perform a Task

2-4) Detail – PC Logs

```
def tasklist():  
    wmic = subprocess.check_output('wmic path win32_process get caption,creationdate', shell=True) #process 시작시간 저장  
    wmic = wmic.decode('euc-kr')  
  
    return wmic
```

```
wmic = tasklist()  
  
if re.findall(r'\w+.exe\b', wmic): #.exe로 끝나는 모든 string을 저장, set() = 중복제거  
    process_name = re.findall(r'\w+.exe', wmic)  
    start_proc = re.findall(r'2019\w\w\w\w+\w\w\w\w\w\w\w', wmic) #2019년도로 시작하는 문자열 검색  
  
for i in range(0, len(process_name)): #DB에 저장될 컨텐츠  
    print("Index : " , i ,  
          "MAC : " , arrinfo[2] ,  
          "proc_name : " , process_name[i] ,  
          "start_proc : " , start_proc[i])
```



4. How to Perform a Task

2-4) Detail – PC Logs

```
import subprocess, os, sys
import re

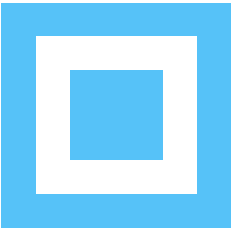
def getMacAddress():    #ipconfig에서 mac주소를 가져오는 함수
    arrinfo = {}
    isdevice = 0
    mk = 0
    if sys.platform == 'win32':
        for line in os.popen("ipconfig /all"):
            if line.lstrip().startswith('호스트'):
                host = line.split(':')[1].strip()
                arrinfo["host"] = host
```

Output

```
Host : DESKTOP-6H67F89
MAC 1 : 00-50-56-C0-00-01
MAC 2 : 00-50-56-C0-00-08
MAC 3 : 00-C2-C6-D1-6F-37
```

```
else:
    if line.lstrip().startswith('터널'):
        isdevice = 0
    if line.lstrip().startswith('이더넷'):
        isdevice = 1
    if line.lstrip().startswith('무선'):
        isdevice = 1
    if isdevice == 1:
        if line.lstrip().startswith('미디어 상태'):
            desc = line.split(':')[1].strip()
            if desc == '미디어 연결 끊김':
                isdevice = 0
        if line.lstrip().startswith('물리적'):
            mac = line.split(':')[1].strip() #.replace('-', ':')
            arrinfo[mk] = mac
            isdevice = 0
            mk += 1

return arrinfo
```



4. How to Perform a Task

2-4) Detail – PC Logs

Output

Caption	CreationDate
System Idle Process	20190416160553.816712+540
System	20190416160553.816712+540
Registry	20190416160551.552344+540
smss.exe	20190416160553.824067+540
csrss.exe	20190416160556.203471+540

Index :	0	MAC :	00-C2-C6-D1-6F-37	proc_name :	smss.exe	start_proc :	20190416160553
Index :	1	MAC :	00-C2-C6-D1-6F-37	proc_name :	csrss.exe	start_proc :	20190416160553
Index :	2	MAC :	00-C2-C6-D1-6F-37	proc_name :	wininit.exe	start_proc :	20190416160551
Index :	3	MAC :	00-C2-C6-D1-6F-37	proc_name :	csrss.exe	start_proc :	20190416160553
Index :	4	MAC :	00-C2-C6-D1-6F-37	proc_name :	winlogon.exe	start_proc :	20190416160556
Index :	5	MAC :	00-C2-C6-D1-6F-37	proc_name :	services.exe	start_proc :	20190416160556

Public PC Guard

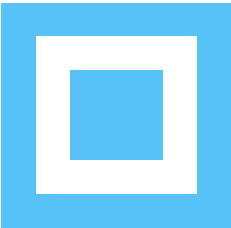
5. Advance Schedule



Schedule																
	3				4				5				6			
Week	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Term
Idea Conference																2W
Android App Develop																4W
Raspberry Pi Server Develop																6W
Database Design																3W
PC Remote Boot / Control Application																5W
PC Log gathering and Transfer Application																5W
Synchronizing Raspberry Pie Android App / PC App																4W
Prototype Test																2W
Final Check / Presentation																2W

Public PC Guard

6. Expected effects and utilization measures



6. Expected effects and utilization measures

Effect

Reduce administrative burden

Use of public institutions

An increase in student responsibility

Application of Smart home system



Thank you for Listening!

Contact : https://github.com/chuyr/Cap4team_2019

