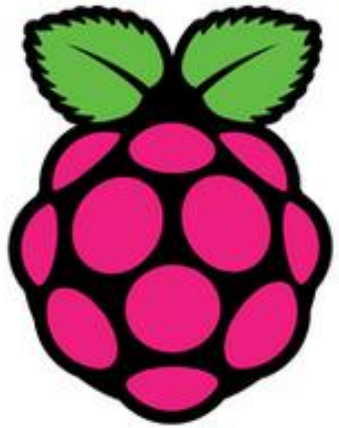


RaspberryPI 환경 설정

정 준 수 PhD

과정 목표

1. Raspberry PI를 사용하여 Machine Data의 수집, 저장 및 분석 과정 학습

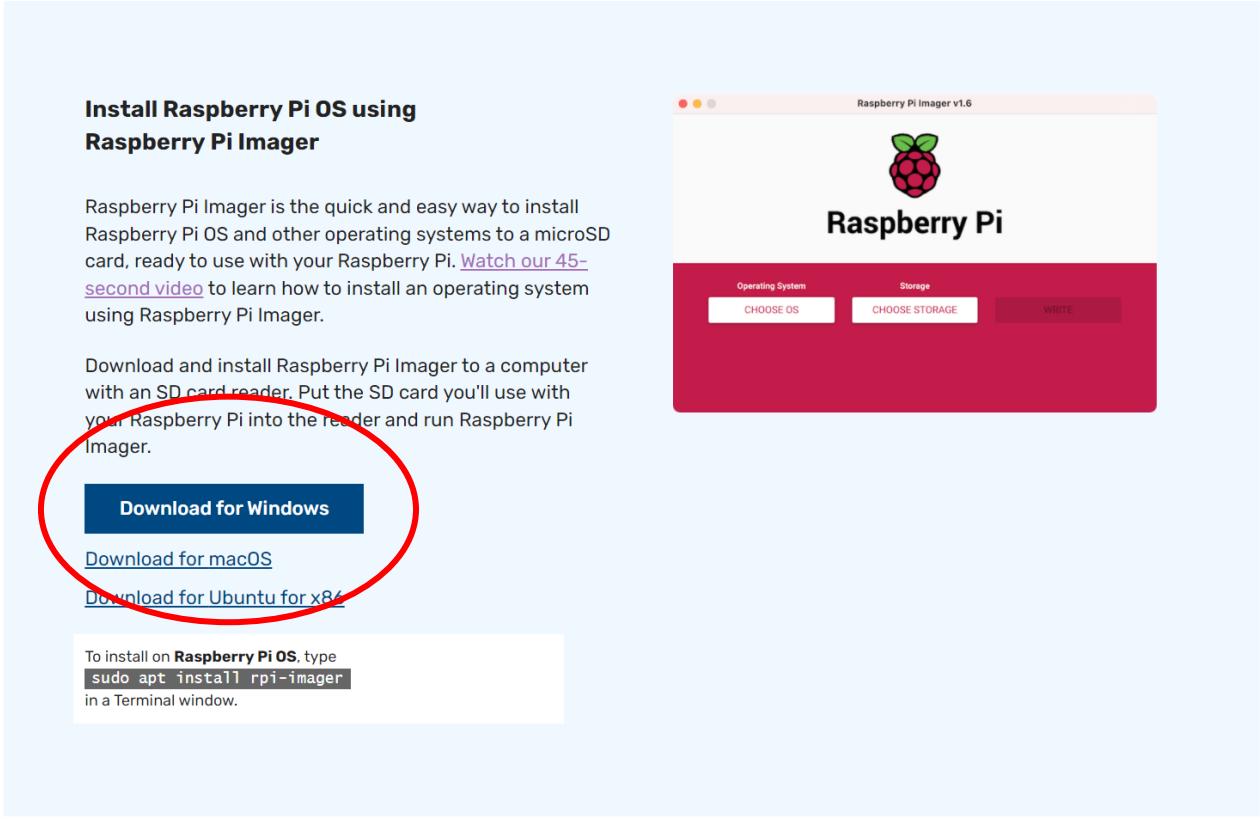
2. 다양한 Machine Data(온도, 습도, 영상 등)의 특성 및 처리 방법 학습

3. Machine Learning(기계학습)을 통한 Predictive Analytics(예측분석) 방법 학습

그리고, Python 프로그래밍, AWS IoT Core, DynamoDB, sageMaker 사용방법 학습

Install Raspberry Pi OS using Raspberry Pi Imager

여기로 가세요! -> https://www.raspberrypi.com/software/



설치 과정 동영상: https://www.youtube.com/watch?v=ntaXWS8Lk34

Raspberry Pi Imager 실행

Raspberry Pi Imager 실행 (5~10분 걸립니다)

Raspberry Pi OS 선택

Raspberry Pi OS

Our recommended operating system for most users.

Compatible with:
All Raspberry Pi models

Raspberry Pi OS with desktop

Release date: October 30th 2021
Kernel version: 5.10
Size: 1,148MB
Show SHA256 file integrity hash:
Release notes

Download

Download torrent

Raspberry Pi OS with desktop and recommended software

Release date: October 30th 2021
Kernel version: 5.10
Size: 3,045MB
Show SHA256 file integrity hash:
Release notes

Download

Download torrent

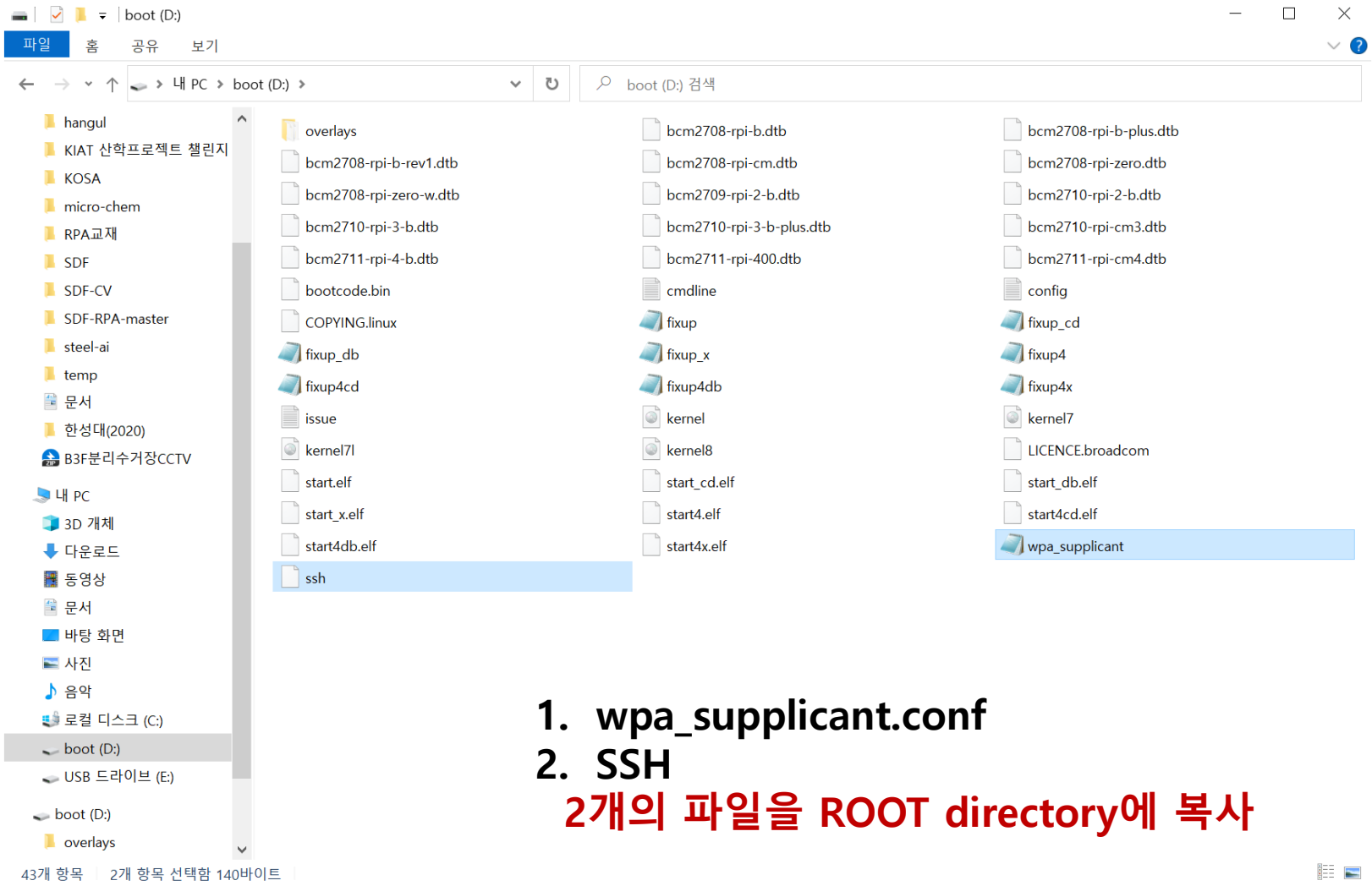
Raspberry Pi OS Lite

Release date: October 30th 2021
Kernel version: 5.10
Size: 463MB
Show SHA256 file integrity hash:
Release notes

Download

Download torrent

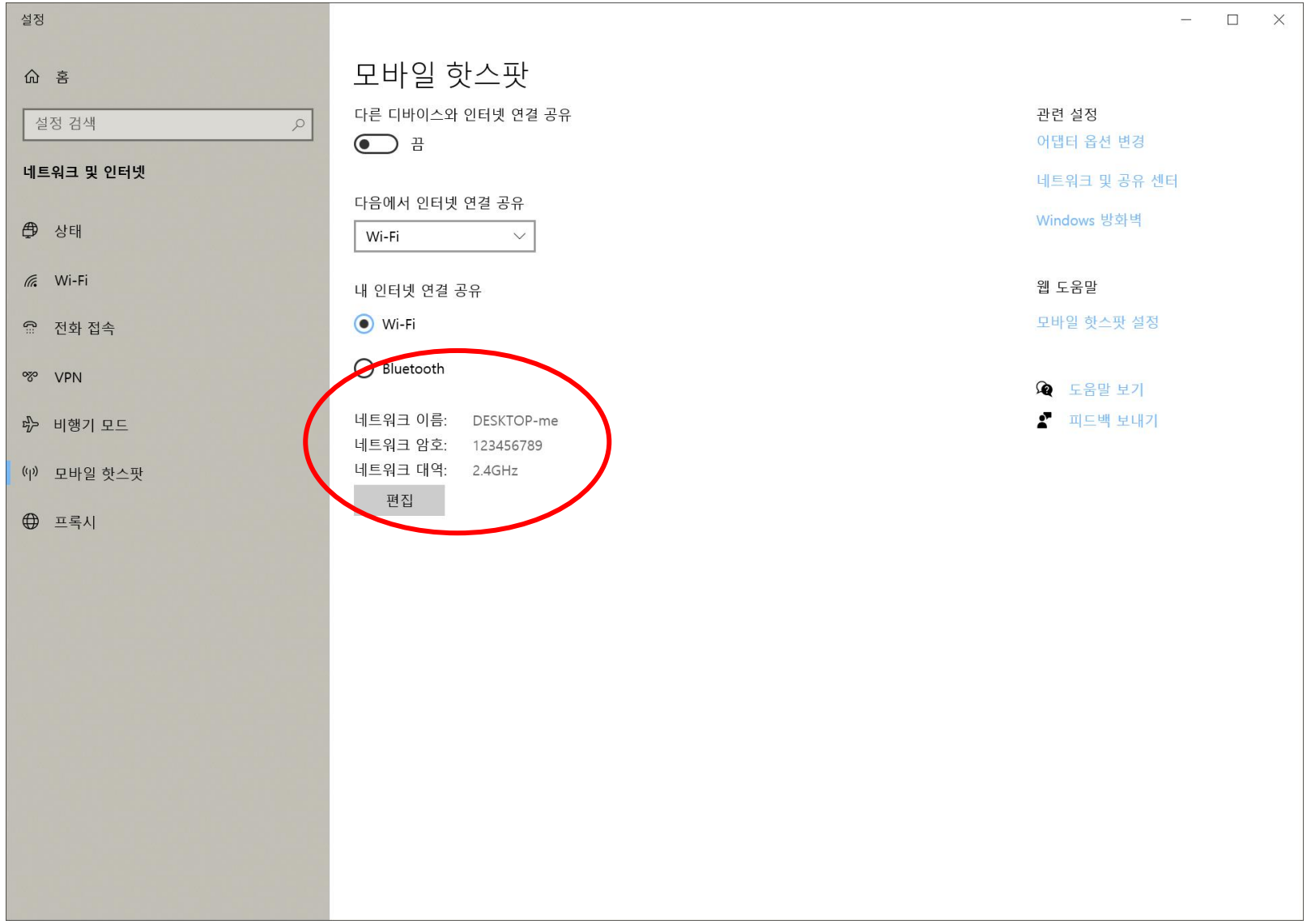
Raspberry Pi 원격 접속 방법(Headless)



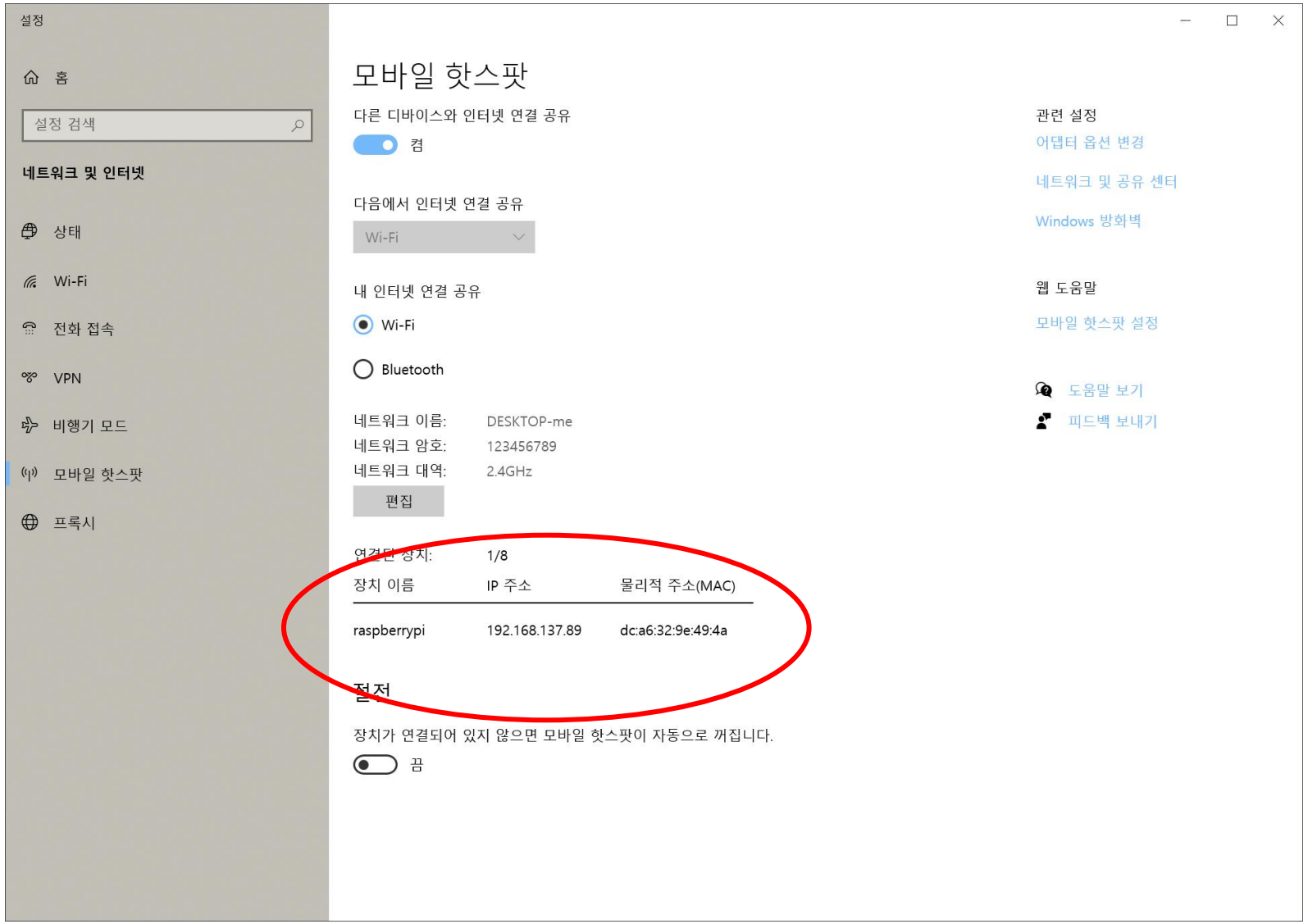
1. wpa_supplicant.conf
2. SSH

2개의 파일을 ROOT directory에 복사

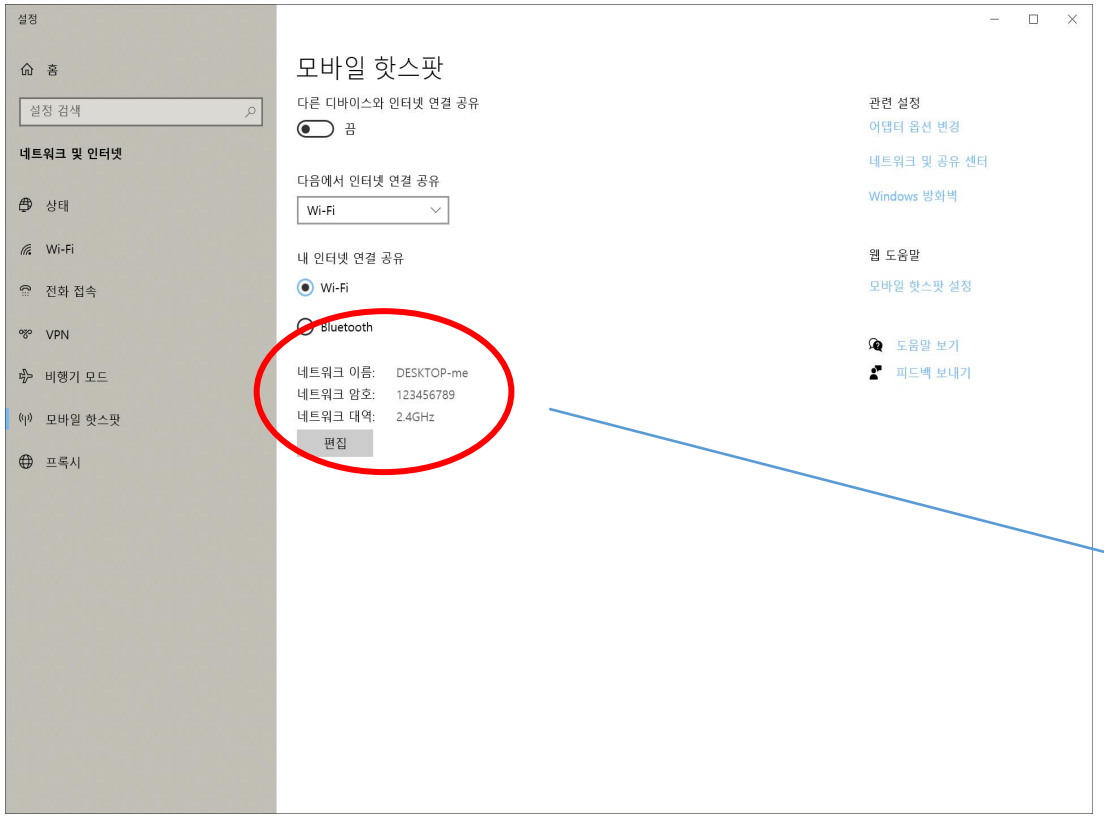
Raspberry PI Wi-Fi 연결 정보

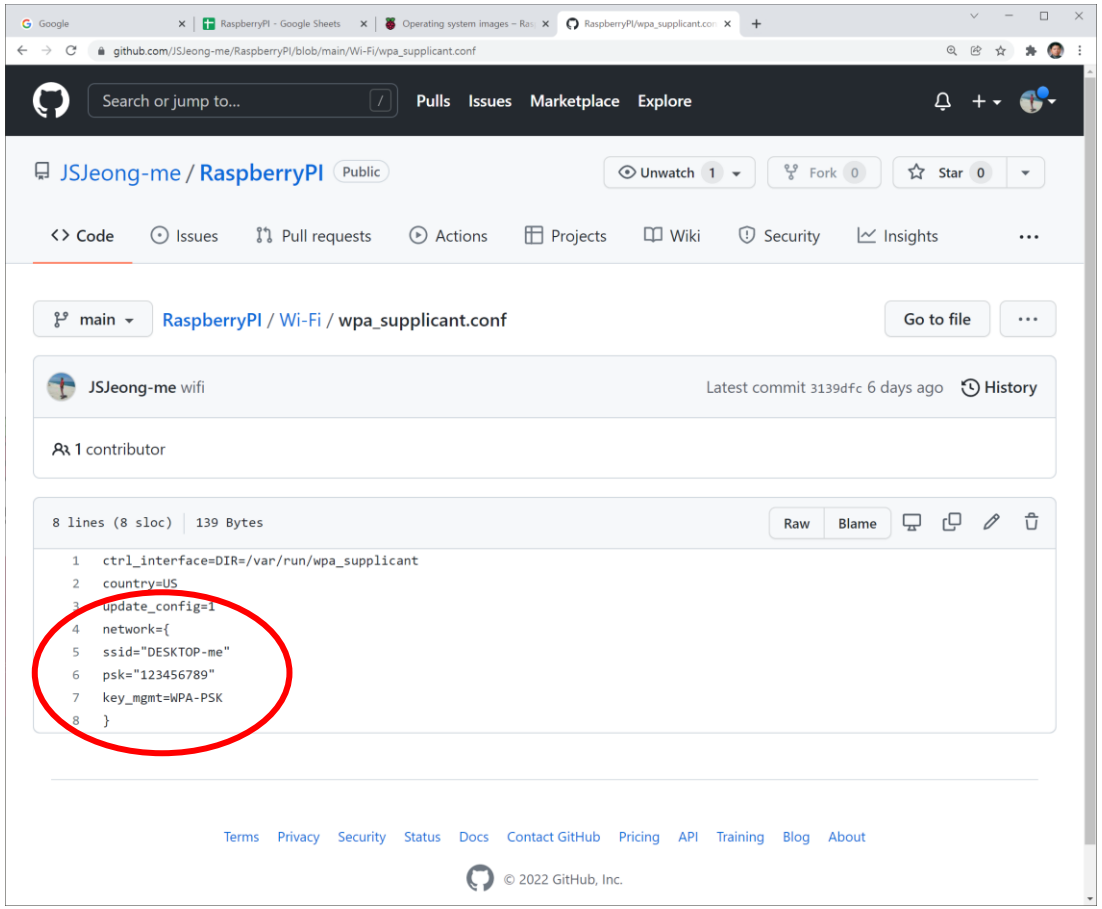


Raspberry PI IP 확인 방법



Raspberry Pi 원격 접속 방법(Headless)





1. **wpa_supplicant.conf**
2. **SSH**

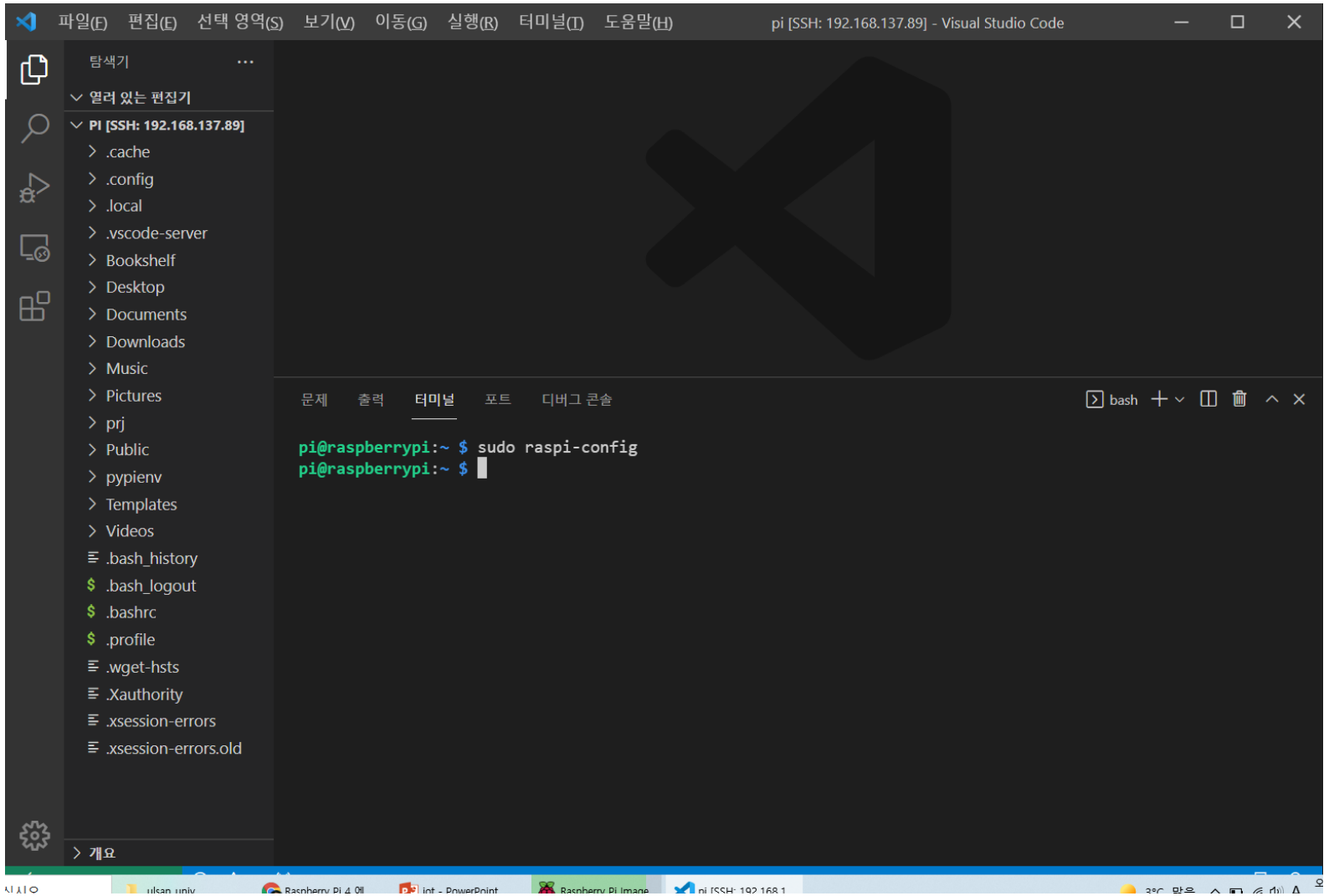
2개의 파일을 준비 합니다.

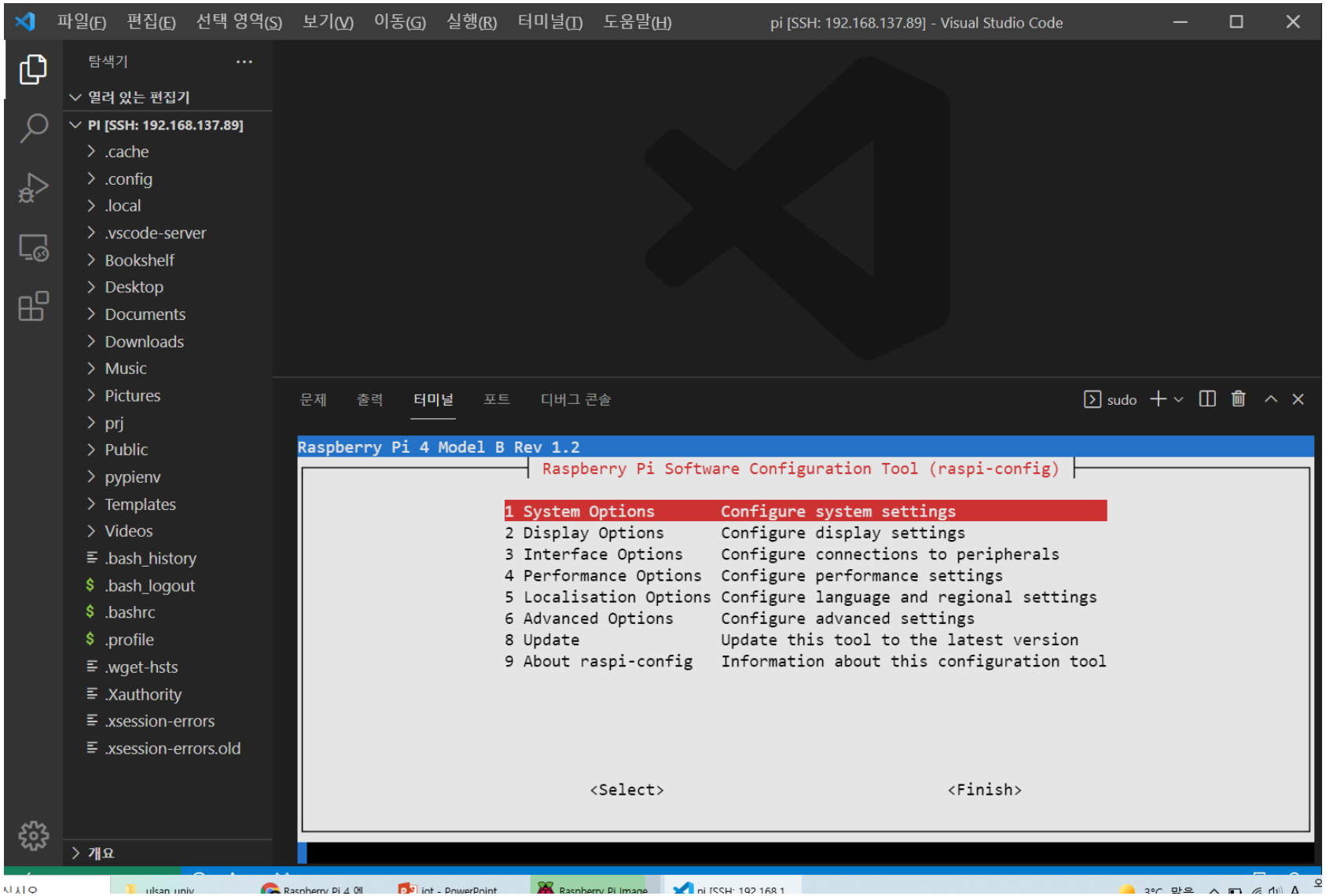
Raspberry Pi 원격 접속 방법(Headless)

- MS VSCode -> https://github.com/JSJeong-me/RaspberryPI/tree/main/VSCode_remote_ssh
- PUTTY
- VNC -> https://github.com/JSJeong-me/RaspberryPI/tree/main/VNC

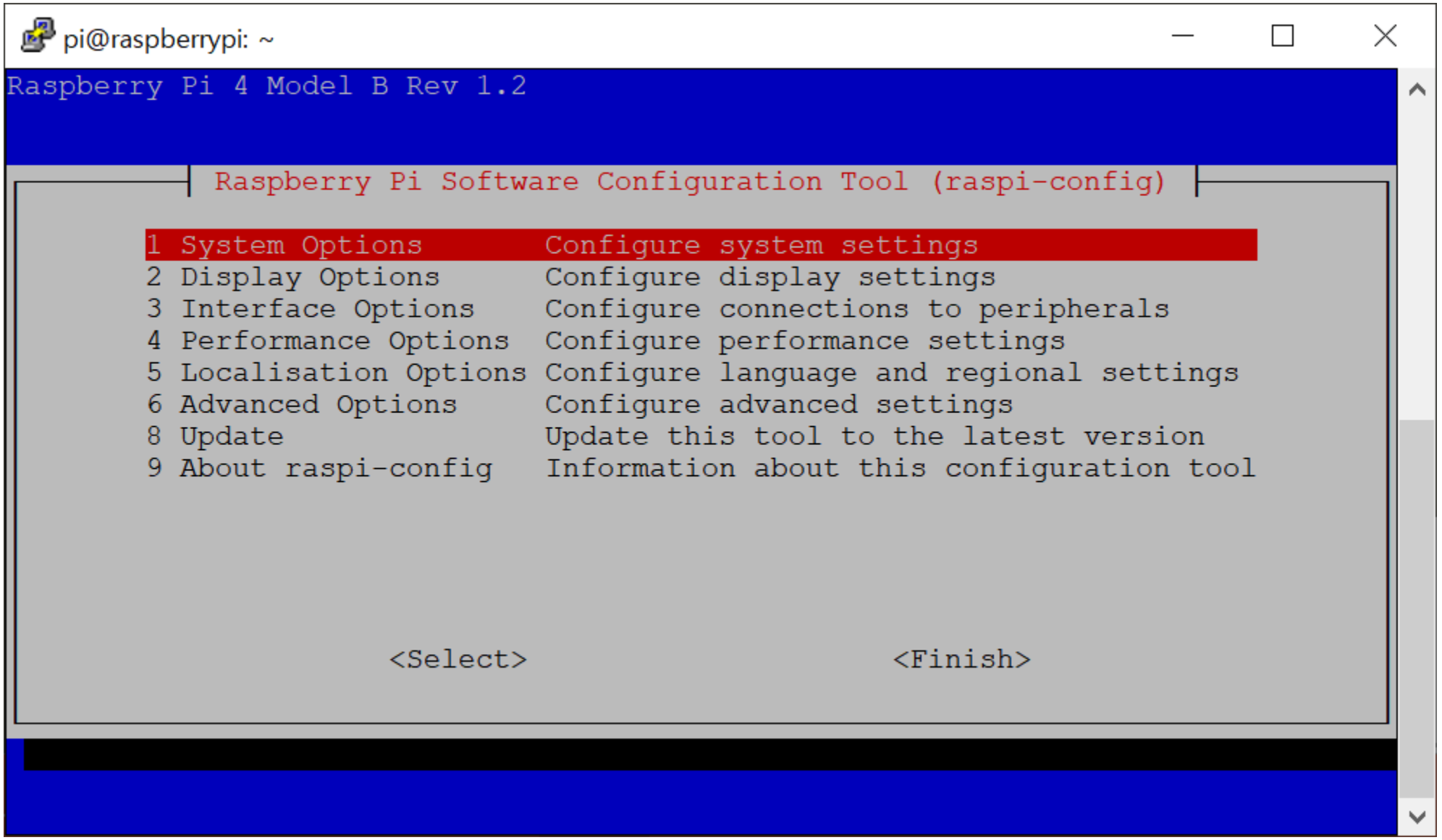
Raspberry PI Configuration

https://www.raspberrypi.com/documentation/computers/configuration.html

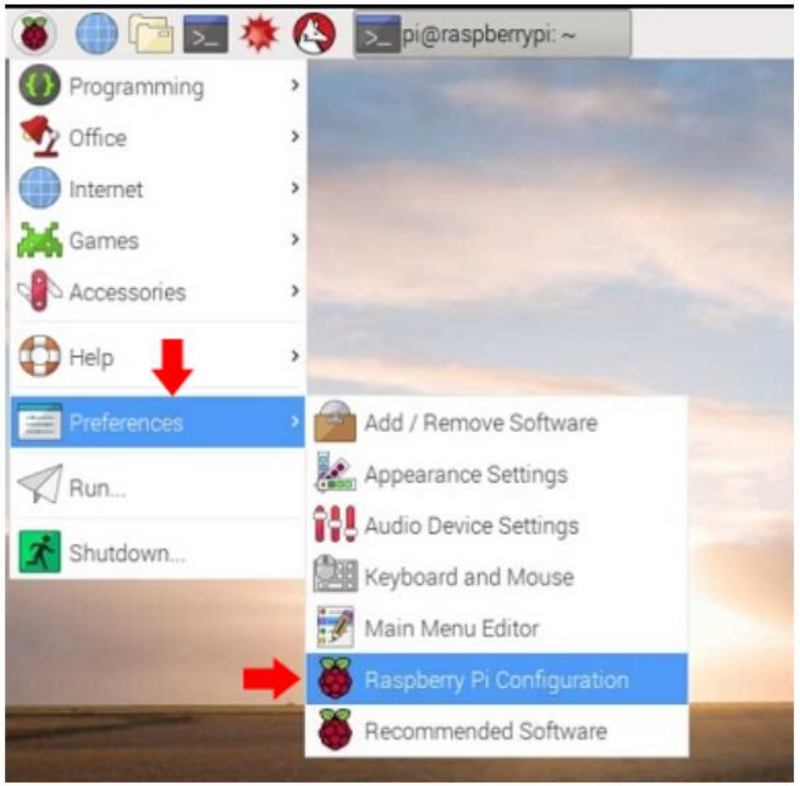


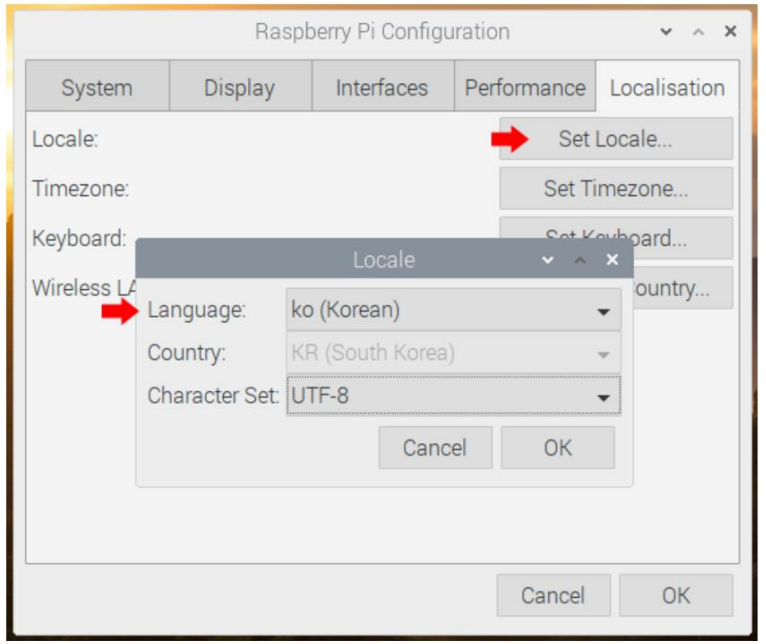

파일(F) 편집(E) 선택 영역(S) 보기(V) 이동(G) 실행(R) 터미널(T) 도움말(H)
pi [SSH: 192.168.137.89] - Visual Studio Code
탐색기
열려 있는 편집기
PI [SSH: 192.168.137.89]
.cache
.config
.local
.vscode-server
Bookshelf
Desktop
Documents
Downloads
Music
Pictures
prj
Public
pypienv
Templates
Videos
.bash_history
.bash_logout
.bashrc
.profile
.wget-hsts
.Xauthority
.xsession-errors
.xsession-errors.old
개요
문제 출력 터미널 포트 디버그 콘솔
sudo
Raspberry Pi 4 Model B Rev 1.2
Raspberry Pi Software Configuration Tool (raspi-config)
1 System Options Configure system settings
2 Display Options Configure display settings
3 Interface Options Configure connections to peripherals
4 Performance Options Configure performance settings
5 Localisation Options Configure language and regional settings
6 Advanced Options Configure advanced settings
8 Update Update this tool to the latest version
9 About raspi-config Information about this configuration tool
<Select>
<Finish>

$ raspi-config



한글 설치





sudo apt-get install fonts-unfonts-core 를 입력하고 엔터를 칩니다.

sudo apt-get install ibus ibus-hangul 을 입력하고 엔터를 칩니다.

Sudo reboot

Linux Commands

Bornshell

$ uname –a

$ ifconfig

$ ps – ael

$ df

$ pkill

$ sudo shutdown –h now

$ sudo reboot

Sense Hat 설치

$ sudo apt update

$ sudo apt-get install sense-hat # Use 'sudo apt autoremove' to remove them

https://trinket.io/sense-hat

$ pip3 install sense-hat

https://projects.raspberrypi.org/en/projects/getting-started-with-the-sense-hat

https://github.com/JSJeong-me/RaspberryPI/blob/main/senseHat/sense_led_01.py

Hello world

JSJeong-me (Joon Soo Jeong / | Amazon Web Services Sign-In | RaspberryPI - Google Sheets | EC-2 US(344)

signin.aws.amazon.com/oauth?client_id=arn%3Aaws%3Asignin%3A%3A%3Aconsole%2Fcanvas&code_challenge=PBIYtUTHe_JBY7XCiK78M3joBl30iYTH8NTwA11TIXU&...

aws

IAM 사용자로 로그인

계정 ID(12자리) 또는 계정 별칭

937800239079

사용자 이름:

me

암호:

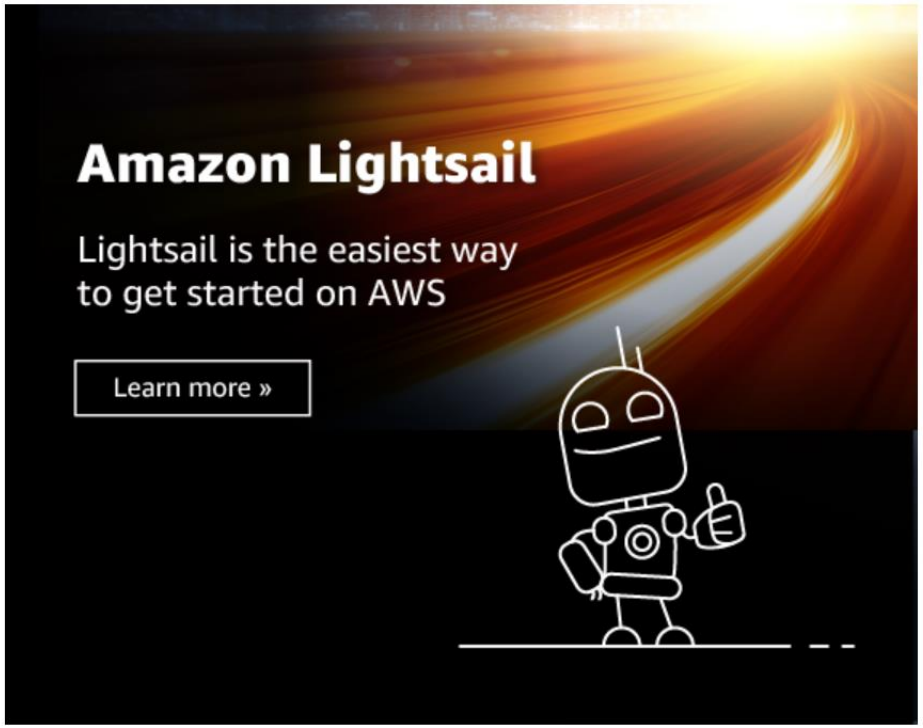
••••••••••

이 계정 기억하기

로그인

루트 사용자 이메일을 사용하여 로그인

암호 찾기



한국어

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- 前) 삼성의료원 (삼성생명과학연구소)
- 前) 삼성SDS (정보기술연구소)
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- 現) 한국소프트웨어산업협회, AI, 머신러닝 강의
- 現) 서울디지털재단, AI 자문위원
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- 전문분야: Computer Vision, 머신러닝(ML), RPA
- https://github.com/JSJeong-me/