Environment set up

1. Clone repo to local disk:
   ** cd to disk D
   junro@Junrong MINGW64 /d/work/CP2107 (main)
   $ git clone git@github.com:berkeleydeeprlcourse/homework_fall2023.git
   cd homework_fall2020/hw2

2. Set up environment
   Conda: set up virtual environment
   - Dependency Isolation
     Different projects need different versions of libraries (e.g., Gym 0.26 vs 0.21). A virtual environment keeps the libraries separate from your system Python, avoiding version conflicts.
   - Clean Slate
     It ensures you're only using packages that are needed for the RL homework — no interference from other projects or global packages.
   - Reproducibility
     Others (like instructors or teammates) can replicate your setup exactly if you share your environment or requirements.

   Install conda (miniconda): Download Miniconda (lightweight version):
   https://docs.conda.io/en/latest/miniconda.html
   Put the exe file to a new folder in disk D
   Open powershell as administrator (if see this error msg: installations for all users requires an elevated prompt)
   cd "D:\Program Files\miniconda"
   Start-Process -FilePath ".\miniconda.exe" -ArgumentList "/InstallationType=AllUsers", "/AddToPath=1", "/S", "/D=D:\Program Files\Miniconda3" -Wait
   del .\miniconda.exe
   Add to Path, then check conda —version

   Create new environment
   Cd to miniconda folder: conda create -n cs285 python=3.10
   Activate env:
   conda init powershell (It adds a line to your PowerShell profile (like a startup script) that sets up the correct environment for conda. This setup allows conda activate to work — activating an environment requires more than just setting a PATH, it adjusts Python paths, environment variables, etc.)
   Close powershell, reopen,
   conda activate deeprl_hw2
   If the error msg still shows: CondaError: Run 'conda init' before 'conda activate'
   test-path $profile
   If return false,
   New-Item -Type File -Path $profile -Force

notepad $profile
Add & 'D:\Program Files\Miniconda3\shell\condabin\conda-hook.ps1' to notepad, save

Check:
(CP2107_rl_hw2) PS D:\Program Files\miniconda>
=> means virtual env already set up

3. Install required packages (powershell)
   Activate conda env -> cd to hw2 folder -> download packages
   [activate env]
   (base) PS D:\> cd '.\Program Files\miniconda\'
   (base) PS D:\Program Files\miniconda> conda activate CP2107_rl_hw2
   [cd to hw folder]
   (CP2107_rl_hw2) PS D:\Program Files\miniconda> cd ..
   (CP2107_rl_hw2) PS D:\Program Files> cd ..
   (CP2107_rl_hw2) PS D:\> cd .\work\CP2107\homework_fall2023\hw2\
   [under hw env, download requirements.txt]
   (CP2107_rl_hw2) PS D:\work\CP2107\homework_fall2023\hw2> pip install -r requirements.txt

4. Open on vs code:
   Open VS Code
   Open the Command Palette: Ctrl + Shift + P
   Type: Python: Select Interpreter → Press Enter
   Look for: Python 3.10.x ('CP2107_rl_hw2': conda)