Installation Instructions

Step 1: Get the Docker Image

Assuming you have installed Docker.

```
$ docker pull abhibp1993/iglsynth:dev
```

Step 2: Get the HW code

Download `HW-Code.zip` from Canvas and unzip it at some location. You should see the following code structure:

```
iglsynth                            <-------------- (base)
    - FMR_HW
        - gw_graph.py
        - prod_ts_aut.py
        - ...

    - iglsynth
        - game
        - logic
        - solver
        - util

    - ...
```

Step 3: Configure PyCharm

1. In PyCharm **(Professional)**, select the base folder `iglsynth` as project.
    - You must have PyCharm Professional to use Docker.
    - To get it, register for student license.
    - Download PyCharm Professional.
    - Enter your login credentials.

2. Create Docker Server
    - Go to `File -> Settings -> Build, Execution and Deployment -> Docker`
    - Click on `+` symbol
    - Enter name as `IGLSynth`.
    - In `Connect to Docker Daemon with`, select TCP socket with default engine API URL.
    - It should show `Connection successful` below path mappings box.

3. Configure Project Interpreter.
    - Go to `File -> Settings -> Project: iglsynth -> Project Interpreter`
    - Click on the gear symbol, and select `Docker`.
    - Select `IGLSynth` as Server.
    - Enter image name as `abhibp1993/iglsynth:dev`
    - Enter Python Interpreter Path as `python3`

That's it.

Running the code

There are three ways to run the code.

1. **[Easiest]** If using PyCharm, just `Run` the file. PyCharm will take care of configurations for you.

2. **[Moderate]** In PyCharm,
    - Go to `View -> Tool Windows -> Docker` (on Windows) or `View -> Tool Windows -> Services` (on Ubuntu). I don't know about Mac!
    - Select and Run `IGLSynth`
    - Find `abhibp1993/iglsynth:dev` in the list of images. Run it.
    - The above step will create a container. Run it.
    - Copy name of container.
    - Go to `View -> Tool Windows -> Terminal`

    ```
    PC$ docker exec -it <container_name> /bin/bash
    Docker$ cd home/iglsynth
    Docker$ python3 -m pytest FMR_HW/<file_name>.py
    ```

3. If running everything from terminal, then

    ```
    PC$ docker run -it -v <PATH/TO/UNZIPPED/FOLDER>:/home/iglsynth
    abhibp1993/iglsynth:dev
    Docker$ cd /home/iglsynth/
    Docker$ python3 -m pytest <file_name>.py
    ```

Check if all tests are pass or not. Ignore any warnings.