Homework #1

School ID: 201824607   Name: 편경찬

1. Install ncurses library on your LinuxBox.

'sudo apt-get install build-essential', 'sudo apt-get install libncurses5-dev libncursesw5-dev', 'sudo apt-get install gnome-terminal' 명령어로 ncurses library를 설치했습니다.
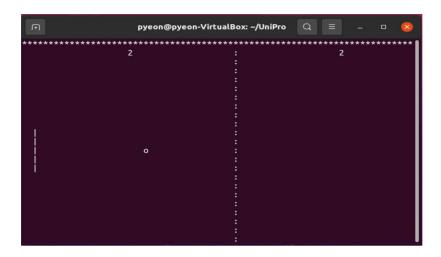
```
pyeon@pyeon-VirtualBox:~/UniPro$ sudo apt-get install gnome-terminal
Reading package lists... Done
Building dependency tree
Reading state information... Done
gnome-terminal is already the newest version (3.36.2-1ubuntu1~20.04).
gnome-terminal set to manually installed.
0 upgraded, 0 newly installed, 0 to remove and 363 not upgraded.
```


2. Create a makefile on your LinuxBos to compile the PingPong files as attached here. Put a screen shot of your own makefile.

```
CC = g++
CFLAGS = -std=c++11 -Wall
LIBS = -lncurses
EXEC = main

SRCS = main.cpp Player.cpp Ball.cpp
OBJS = $(SRCS:.cpp=.o)

all: $(EXEC)

$(EXEC): $(OBJS)
        $(CC) $(CFLAGS) $(OBJS) -o $(EXEC) $(LIBS)

%.o: %.cpp
        $(CC) $(CFLAGS) -c $< -o $@

clean:
        rm -f $(OBJS) $(EXEC)

~
~
~
"Makefile" 19L, 274C
```

CFLAGS로 컴파일러 옵션을 설정, LIBS로 링크할 라이브러리인 ncurses를 설정, main이라는 실행파일(EXEC)을 설정, main.cpp, Player.cpp, Ball.cpp 3개의 소스 파일을 오브젝트 파일로 컴파일하도록 makefile을 구성했습니다.

```
pyeon@pyeon-VirtualBox:~/UniPro$ ls
Ball.cpp  Ball.h  main.cpp  Makefile  Player.cpp  Player.h
pyeon@pyeon-VirtualBox:~/UniPro$ make
g++ -std=c++11 -Wall -c main.cpp -o main.o
g++ -std=c++11 -Wall -c Player.cpp -o Player.o
g++ -std=c++11 -Wall -c Ball.cpp -o Ball.o
g++ -std=c++11 -Wall main.o Player.o Ball.o -o main -lncurses
```

3. Put a screen shot of output generated by the PingPong program after running on your Program as here.

make 빌드 후 ./main으로 실행한 결과입니다.