Exercise:

In this question, you are required to write algorithm of the game **Rock, Paper, Scissors** played between a player and computer. In the game, paper beats rock, scissors beats paper and rock beats scissors.

- You will use Object Oriented Programming in the algorithm. You will define a class **RockPaperScissors** which has two properties: **moveOfPlayer** and **moveOfComputer**, which stores last move of players. *(0 for rock, 1 for paper, 2 for scissors)* In your constructor, perform an error check so that if the object is defined without any input arguments, Matlab will not give an error. Following methods must exist in the class.
    - `SetMoveP(d,m)` that takes object d and sets **moveOfPlayer** property of the object to **m**.
    - `PrintMoveP(d)` that takes the object and prints the move player made in the current turn.
    - `PlayC(d)` that sets **moveOfComputer** property of the object to a random integer number which is between 0 and 2 and generated in this method.
    - `PrintMoveC(d)` that takes the object and prints the move computer made in the current turn.
    - `[pw, cw]=Win(d)` takes object d and according to property values, prints an output in each turn. Also, it returns two arguments to main script that correspond to number of turns player win and number of turns computer win.

- You are required to write a main script in order to apply the whole algorithm. Your algorithm must take number of turns that customer wants to play as input. Then, for each turn, by utilizing class methods, the game will be simulated. Total number of wins of player and computer must be kept in variables in order to determine final winner.
- Your program should give the following output. Please check the output and the format carefully since it provides some hints about algorithm.

```
Enter the number of turns you want to play: 6
-----------------
Turn 1
Enter your move (0:Rock, 1:Paper, 2:Scissors): 0
You played rock!
Computer played scissors!
You win this turn!
-----------------
```

```
Turn 2
Enter your move (0:Rock, 1:Paper, 2:Scissors): 1
You played paper!
Computer played rock!
You win this turn!
-----------------
Turn 3
Enter your move (0:Rock, 1:Paper, 2:Scissors): 1
You played paper!
Computer played paper!
Draw in this turn!
-----------------
Turn 4
Enter your move (0:Rock, 1:Paper, 2:Scissors): 1
You played paper!
Computer played paper!
Draw in this turn!
-----------------
Turn 5
Enter your move (0:Rock, 1:Paper, 2:Scissors): 0
You played rock!
Computer played paper!
You lose this turn!
-----------------
Turn 6
Enter your move (0:Rock, 1:Paper, 2:Scissors): 0
You played rock!
Computer played scissors!
You win this turn!
------------------
Congratulations, you win the game :)
```
-Other cases:
Draw!
You lose :(

```
c1 =
Full name of the customer is   .
c2 =
Full name of the customer is John .
c3 =
Full name of the customer is Emily Rose.
c4 =
Full name of the customer is David Black.
c5 =
Full name of the customer is   .
c6 =
Full name of the customer is Harry Carpenter.
s1 =
Checking information for asset...
Undefined current value: 0.00
Undefined owner information
Full name of the customer is   .
Stock Information
Number of Shares: 0.00
Price of Shares: 0.00
s2 =
Checking information for asset...
VNET current value: 5.43
VNET owner information
Full name of the customer is John .
Stock Information
Number of Shares: 184.00
Price of Shares: 1.22
s3 =
Checking information for asset...
FCCN current value: 0.01
FCCN owner information
Full name of the customer is David Black.
Stock Information
Number of Shares: 4500.00
Price of Shares: 0.15
s4 =
Checking information for asset...
EDXC current value: 0.00
EDXC owner information
Full name of the customer is Harry Carpenter.
Stock Information
Number of Shares: 1468642.00
Price of Shares: 0.05
b1 =
Checking information for asset...
Undefined current value: 0.00
Undefined owner information
```

```
Full name of the customer is   .
Bond Information
Interest Rate: 0.00
b2 =
Checking information for asset...
JGBs current value: 9074.00
JGBs owner information
Full name of the customer is John .
Bond Information
Interest Rate: 0.05
b3 =
Checking information for asset...
BTPs current value: 2571.00
BTPs owner information
Full name of the customer is Emily Rose.
Bond Information
Interest Rate: 0.08
b4 =
Checking information for asset...
OATs current value: 0.00
OATs owner information
Full name of the customer is Harry Carpenter.
Bond Information
Interest Rate: 0.08
p1 =
Checking information for asset...
Undefined current value: 0.00
Undefined owner information
Full name of the customer is   .
Property Information
Mortgage Rate: 0.00
p2 =
Checking information for asset...
House at L.A. current value: 2000000.00
House at L.A. owner information
Full name of the customer is David Black.
Property Information
Mortgage Rate: 0.09
p3 =
Checking information for asset...
House at NYC current value: 15000000.00
House at NYC owner information
Full name of the customer is Harry Carpenter.
Property Information
Mortgage Rate: 0.13
p4 =
Checking information for asset...
House at Madrid current value: 3000000.00
House at Madrid owner information
Full name of the customer is Emily Rose.
Property Information
Mortgage Rate: 0.25
>>
```