

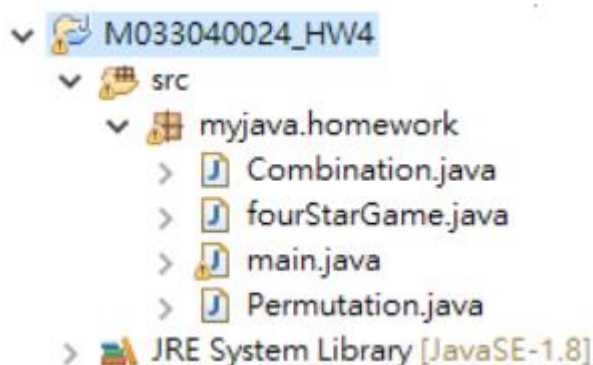
[2017 JAVA 物件導向程式設計 Homework4]

● 注意事項

1. 請使用 JAVA 語言, 配合 Eclipse 寫本次作業並進行測試, 並安裝、使用 JAVA SE Development Kit(JDK) 8 函式庫。
2. 請依據作業規定設定 Eclipse 專案名稱與 package name, 若未依照規定將根據狀況扣分。
3. 嚴禁抄襲其他同學作業, 參與者(抄襲與被抄襲)均以零分計算。
4. 請對你的程式碼有深入瞭解, demo 時助教會問。
5. 對題目有問題可以寄信問助教群(java_ta@net.nsysu.edu.tw)或是到實驗室(EC5018)詢問, 但不幫忙 debug。
6. 逾期以零分計算, 不接受補交, 有任何因素導致無法如期繳交, 請事先告知; Demo 時間會另外通知。

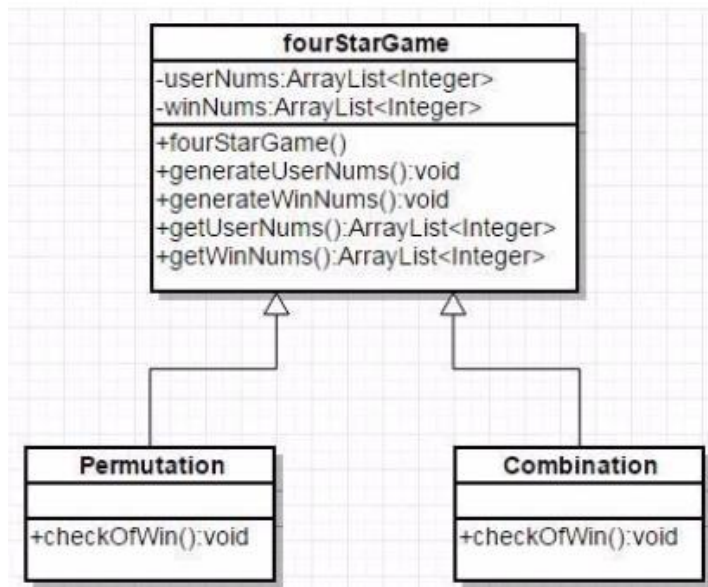
● 作業規定與上傳

1. Eclipse 專案名稱:<學號>_HW4
2. Package path:請參考下圖
3. 作業請繳交專案之 tar 或 zip archive 並上傳至網路大學。
4. 請於 2017 年 4 月 3 日(週一) 23:59 前上傳完畢, 逾期以零分計算, 不接受補交, 有任何因素導致無法如期繳交, 有問題請事先告知, 再次強調, Demo 時間另外通知。
5. Example of eclipse package explorer(請根據作業規定修改):



提示：此次作業需參考到 UML。請注意、+、-、__，都是有意義的。可以參考此 Wiki 之 Members 章節說明：[連結](#)

● Homework Explanation



1. According to the class diagram above, please develop a simple 4-Star game.
2. In Class fourStarGame, there are two ArrayList – winNums is used to store four lucky numbers, and userNums is used to store 4 numbers from user input.
 - A. Method generateUserNums is used to store 4 numbers from user input to userNums.
 - B. Method generateWinNums is used to randomly generate 4 non-duplicate and ranged in 0~9 numbers and store them to winNums.
 - C. Method getUserNums is used to return the userNums.
 - D. Method getWinNums is used to return the winNums.
3. Class Permutation is inherited from Class fourStarGame.
 - A. Method checkOfWin is used to check if the 4 numbers in userNums are the same with the 4 numbers in winNums. (Must in the same order)
4. Class Combination is inherited from Class fourStarGame.
 - A. Method checkOfWin is used to check if the 4 numbers in userNums are the same with the 4 numbers in winNums. (Order is not necessarily the same)
5. Please make sure user input is correct and the program is stable.

● Sample Output

Permutation

```
Choose your Four Star Game type : (1:Permutation 2:Combination 3: Exit)
1
Win numbers : 5 3 1 0
Input four user numbers : 5 3 1 0
**You win!
Choose your Four Star Game type : (1:Permutation 2:Combination 3: Exit)
1
Win numbers : 2 1 8 0
Input four user numbers : 0 1 2 8
**You lose!
Choose your Four Star Game type : (1:Permutation 2:Combination 3: Exit)
1
Win numbers : 5 9 0 4
Input four user numbers : 5 9 0
Wrong input, try again.
```

Combination

```
Choose your Four Star Game type : (1:Permutation 2:Combination 3: Exit)
2
Win numbers : 6 1 8 4
Input four user numbers : 1 4 6 8
**You win!
Choose your Four Star Game type : (1:Permutation 2:Combination 3: Exit)
2
Win numbers : 7 6 0 5
Input four user numbers : a b c d
Wrong input, try again.
Choose your Four Star Game type : (1:Permutation 2:Combination 3: Exit)
3
.
```