RATIONALE

GameSystem:

The most important class is the GameSystem class. It contains different players, board, dictionary, bags for normal tile and bags for special tiles. I separate bags into two because the normal bags handout tiles automaticly to player while special bags are required to pay for them. The dictionary class is responsible for check the word that player put to board is valid. Also we can add new dictionary to that class without any other change. The gameSystem class deal with the interaction between other classes, such as get the tile from tile bag and hand it to player. This is how I try to remain low coupling

Player:

In the player class, the total scores are counted and the previous and next player are recorded.

In the move method, the player can choose whether to pass the round, exchange the tiles or put tile.

Board

The board class contains three parts, one part is the tiles on board, one part is the special tiles on board, and the other is the squares on board. The main responsibility that board class has is to check that the tile player put is valid, which contains to check whether the tiles are put adjacent in vertical or in transverse to each other to form the right word. Other methods such as putting tiles on board to make them visible and getting scores are included.

Special tile

I create an interface and four concreate classes to implement it for the purpose of design for change. As a result I can treat them same in board class. Every special tile has its own “effect” and can cause different result. Besides the special tile is only visible to its owner.

Squares

I create an interface and four concreate classes to implement it for the purpose of design for change. As a result I can treat them same in board class. The differences occurs when calculating the scores.

Word

The word class is useful for calculating the scores and checking the validation of the word that tiles form. The design goal is to design for devision of labor and simplifying the code.