# Discussion

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I did change a lot my design during my implementation. It is mainly about the methods which are useful but ignored during the milestone A.

1. Player class
   1. I added the recall tiles because player may misplace some tiles and this method will help them recall the tile and make the play again
   2. Exchange tile method. This method is useful since the player may want to exchange tiles to finish its play.

Corresponding changes are made because the rack handles most tile stuff for the player

1. Board class
   1. I apply special tiles effect on the board when I did the implementation
   2. And for repainting the board in GUI I have to get all the tiles on the board, so I added another method so that the method will return the whole tiles on the board instead of one according to the location.
2. Board Referee Class: I strongly underestimated the function of the referee during milestone A, I modified this class a lot.
   1. To check the validity of the play, the referee need to check not only the new tiles are aligned, but also connected with at least one tile that already on the board;
   2. To get the word on the board, the referee needs to get the word along the direction of new tiles but also the words vertical to the new tiles. So I added a private get word method to finish this task;
   3. Added Calculator private class: since the score of the word can not be determined before we know the feature of all new locations, so we need to store the feature, scores as a field. That’s why I created the calculator separately.

For the extra turn special tile, since I have an abstract class called special tile, I just extended the class and added the special effect for this tiles. But this tile affects the order of the players, so I also changed the change Player method in scrabble game class, so that it will consider the effect of this special tile. That’s all I modified for the addition of the special tile.