

# CRC Cards

| Tile  |              |
|---|--------------|
| Responsibility  | Collaborator |
| <ul style="list-style-type: none"><li>• Represents a single tile</li><li>• Holds a letter and a score value</li><li>• Immutable</li></ul> |              |

| Board  |  |
|--|--|
| Responsibility   | Collaborator   |
| <ul style="list-style-type: none"><li>• Represents the Scrabble board</li><li>• By default, is a 15x15 grid of tiles</li><li>• Handles placement, and fetching of placed letters and words</li></ul> | <ul style="list-style-type: none"><li>• Contains a 2D array of <b>Tile's</b></li></ul> |

| Player   |  |
|--|--|
| Responsibility   | Collaborator   |
| <ul style="list-style-type: none"><li>• Represents the player</li><li>• Holds a name, a hand, and a score</li><li>• Can draw tiles</li></ul> | <ul style="list-style-type: none"><li>• Hand is a <b>List&lt;Tile&gt;</b></li><li>• Gets <b>Tile's</b> from a <b>TileBag</b></li></ul> |

| TileBag   |  |
|---|--|
| Responsibility  | Collaborator   |
| <ul style="list-style-type: none"><li>• Contains all 100 Scrabble tiles</li><li>• Manages drawing and returning tiles</li></ul> | <ul style="list-style-type: none"><li>• Supplies <b>Tile's</b> to the player</li></ul> |

| Game  |  |
|---|--|
| Responsibility  | Collaborator   |
| <ul style="list-style-type: none"><li>• Manages the game flow</li><li>• Orchestrates turns, validates moves, updates score, checks for game end</li></ul> | <ul style="list-style-type: none"><li>• Creates a <b>Board</b></li><li>• Has a <b>TileBag</b></li><li>• Has a <b>List&lt;Player&gt;</b></li><li>• Checks <b>Dictionary</b> for valid words</li></ul> |

| Dictionary  |              |
|---|--------------|
| Responsibility  | Collaborator |
| <ul style="list-style-type: none"> <li>Loads words from a file</li> <li>Checks if a word exists within its loaded collection</li> </ul> |              |

## UML Diagram

