File - D:\Projects\Labo_08_Jeu_d_echecs\src\engine\pieces\Piece.java

```java
package engine.pieces;

import chess.PieceType;
import chess.PlayerColor;
import engine.movements.*;
import engine.utils.Coordinates;

public abstract class Piece {
    private final PieceType type;
    private final PlayerColor color;
    private Movements movements;
    protected boolean firstMovement = true;

    public Piece(PieceType type, PlayerColor color, Movements movements) {
        if (type == null)
            throw new IllegalArgumentException("Piece type cannot be null");
        if (color == null)
            throw new IllegalArgumentException("Player color cannot be null");
        if (movements == null)
            throw new IllegalArgumentException("Movements cannot be null");

        this.type = type;
        this.color = color;
        this.movements = movements;
    }

    protected void setMovements(Movements movements) {
        this.movements = movements;
    }


    public PieceType getType() {
        return this.type;

    }
```

```
36
37      public PlayerColor getColor() {
38          return color;
39      }
40
41      public Coordinates[] getPossibleMovement(Coordinates positionInitial,
42                                               Coordinates positionFinal) {
43          Step possibleStep = this.movements.getPossibleStep(positionInitial,
44                  positionFinal);
45          if (possibleStep == null) return null;
46
47          Coordinates[] possibleMovement = possibleStep.getMovement();
48          if (possibleMovement == null) return null;
49
50          Coordinates[] m = new Coordinates[possibleMovement.length];
51          for (int i = 0; i < possibleMovement.length; ++i)
52              m[i] = new Coordinates(Coordinates.addition(possibleMovement[i],
53                      positionInitial));
54
55          return m;
56      }
57
58      public boolean movementIsOk(Coordinates positionInitial,
59                                  Coordinates positionFinal) {
60          Coordinates[] possibleMovement = getPossibleMovement(positionInitial,
61                  positionFinal);
62          if (possibleMovement == null) return false;
63
64          for (Coordinates c : possibleMovement) {
65              if (Coordinates.equal(c, positionFinal)) return true;
66          }
67          return false;
68      }
69
70      public boolean isFirstMovement() {
```

```
71          return this.firstMovement;
72      }
73
74      public void clearFirstMovement() {
75          this.firstMovement = false;
76      }
77  }
```