



```

class Cluedo{
    1 -- 1 Board;
    1 -- 1 Deck;
    1 -- 3..6 User;
    1 -- 1 TurnOrder;
    1 -- 1 Envelope;
    1 -- * Move;

    private int getPlayerCount(Scanner input) {}
    private void play(Scanner input) {}
    private void viewCards(Scanner input, User user) {}
    private Move moveSelection(Scanner input) {}
    private GuessMove guessSelection(Scanner input) {}
    private void processGuess(Scanner input, GuessMove guess) {}
}

```

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class WeaponCard {
    isA Card;

    String name;
}

```

```

class RoomCard {
    isA Card;

    String room;
}

```

```

class CharacterCard {

```

```

    isA Card;

    String name;
}

class Card {
    public boolean represents(String s) {}
}

class Envelope{
    0..1 -> 3 Card;

    public boolean processGuess(EnvelopeMove move) {}
}

class Deck {
    0..1 -> 21 Card;

    public Card randomCard() {}
    public Set getEnvelopeContents() {}
    public Card getCardOfType(Class class) {}
}

class TurnOrder {
    0..1 -> 0..6 User guessing;
    0..1 -> 3..6 User order;

    int pointer;

    public User currentUser() {}
    public void endTurn() {}
    public List responseOrder() {}
    public boolean playersLeft() {}
}

class User {
    0..1 -> 3..6 Card hand;
    0..1 -> 3..18 Card seen;

    String name;
    CharacterPiece characterPiece;

    public List hasCards(String character, String weapon, String room)
{}
    public void addCardToHand(Card card) {}
    public void addCardToSeen(Card card) {}
}

class GuessMove {
    isA Move;

```

```

    CharacterPiece character;
    WeaponPiece weapon;
    Room room;
}

class EnvelopeMove {
    isA Move;

    String character;
    String weapon;
    Room room;
}

class CustomMove {
    isA Move;
    1 -- * Step;

    int numSteps;
    CharacterPiece characterPiece;

    class BoardPosition {
        int row;
        int col;

        public void move(Direction direction){}

        public void leap(Step step) {}
    }

    class Step{
        Direction direction;
        int count;

        enum Direction {N,S,E,W}
    }
}

class Move {
    User user;
    String invalidMessage;

    public boolean isValid(Board board){}
    public boolean apply(Board board){}
}

class Board {
    1 -- * Cell;

```

```

1 -- 12 Piece;
0..1 -> 9 Room;

int rows;
int cols;

public boolean execute(Move move) {}

public Room inRoom(User user) {}

public Room getRoom(Piece piece) {}

public Cell getCell(int row, int col) {}
}

class Cell {
    * -> 0..1 Room;

    CellType type;
    String letterValue;
    boolean isDoorway;
    boolean isOccupied;

    enum CellType {ROOM, HALLWAY, OUT_OF_BOUNDS}
}

class Room {
    String name;
}

class Piece {
    String name;
    int row;
    int col;

    public void move(int x, int y) {}
}

class WeaponPiece {
    isA Piece;
}

class CharacterPiece {
    int id;
    isA Piece;
}

```

```
class User {
    position 362 427 278 146;
}

class Cell {
    position 1011 229 159 129;
    position.association Cell__Room 47,129 21,0;
}

class Cluedo {
    position 507 7 287 146;
    position.association Cluedo__User 140,146 262,0;
    position.association Board__Cluedo 287,31 0,2;
    position.association Cluedo__Deck 0,82 208,0;
    position.association Cluedo__TurnOrder 45,163 78,0;
    position.association Cluedo__Envelope 0,13 302,24;
    position.association Cluedo__Move 252,163 75,0;
}

class Envelope {
    position 23 87 302 78;
    position.association Cluedo__Envelope 30,0 76,58;
}

class Deck {
    position 91 213 228 112;
    position.association Card__Deck 90,112 102,0;
}

class Card {
    position 13 443 226 78;
}

class WeaponCard {
    position 5 632 112 78;
}

class CharacterCard {
    position 281 631 112 78;
}

class RoomCard {
    position 143 633 109 78;
}

class Piece {
    position 1244 284 166 129;
}

class WeaponPiece {
    position 1171 498 109 61;
```

```

}

class CharacterPiece {
    position 1292 495 114 78;
}

class TurnOrder {
    position 366 199 226 146;
    position.association Cluedo__TurnOrder 109,10 0,39;
    position.association TurnOrder__User:order 139,146 146,0;
    position.association TurnOrder__User:guessing 9,146 14,0;
}

class Move {
    position 744 218 197 129;
    position.association Cluedo__Move 30,0 140,58;
}

class User {
    position 362 427 278 146;
    position.association Card:hand__User 0,37 226,4;
    position.association Card:seen__User 0,83 226,62;
}

class CustomMove {
    position 785 542 231 95;
    position.association CustomMove__Step 99,78 30,0;
}

class GuessMove {
    position 655 416 197 112;
}

class EnvelopeMove {
    position 939 417 138 112;
}

class Board {
    position 1207 42 202 163;
    position.association Board__Cell 34,163 77,0;
    position.association Board__Piece 174,163 86,0;
    position.association Board__Room 77,112 82,0;
    position.association Board__Room:rooms 75,112 102,0;
}

class Room {
    position 1090 404 112 78;
}

class BoardPosition {
    position 613 681 187 129;
}

```

```
class Step {  
  position 1039 716 153 95;  
}  
//$?[End_of_model]$?
```