Coupling = how closely related objects are to other objects

tight coupling = very dependent
loose coupling = very independent (goal)

Cohesion = how closely the variables and functions within the
class are related to each other

high cohesion = highly related (goal)
low cohesion = not related

Object
Oriented Programming is all
about responsibilities. A Card has all
of the logic related to what it's suit and
value are and the things that a card can do.
This is called cohesion. **This card class is
highly cohesive, because all methods are
tightly related to and dependent on each other.**

i.e. the Hand object should not know how to
determine the numeric value of a card - only a
Card should know how to do that. **The
Hand class is dependent on the Card
class, but the Card class is not
dependent on Hand. They are
loosely   coupled.**

Card

- suit: String
- face: String
- isFaceUp: boolean

// static final lookup Maps
+ valueMap: Map<String, Integer>
- symbols: Map<String, Character>
- colors: Map<String, String>

+ constructor(suit, face)
+ *static constructor // initialize maps*

+ getSuit(): String
+ getFace(): String
+ isFaceUp(): boolean

// these are derived from face or suit
+ getValue(): int
+ getColorName(): String
+ getColor(): String
+ getSymbol(): String

+ flip(): boolean

Deck

- cards: List<Card>

+ shuffle()
+ deal(): Card
+ countCards(): int

Deck and Hand are very loosely
coupled. They are not dependent
directly on each other, but they can
communicate because they are
both associated with cards

Hand

- cards: List<Card>
- playerName: String

+ ctor(playerName: String)

+ getPlayerName(): String
+ getValue(): int

+ countCards(): int
+ showHand(): void
+ deal(card: Card) : void