Abstract **HashGridCell**	
• has key • has value • define interface for `display` method • define interface for `empty?` method	

HashGrid	
• has size • private: has HashGridCell type to instantiate for each cell • private: has hash (internal data structure) • determine empty cells • determine full? • determine cell value ([]) • determine rows, columns, diagonals, and center cells	• HashGridCell

HashGridVisual	
• has constants for cell width padding, vertical padding, and width • draw HashGrid contents w/ optional cell keys	• HashGrid

Space	HashGridCell
• alias player to HashGridCell#value • alias player= to HashGridCell#value= • implement `display` abstract method • implement `empty?` abstract method • mark (set `value`/`player` to `Player` object)	• Player

Board

- has size (from HashGrid instance)
- reset (re-instantiate hash grid with size option)
- draw grid of spaces using HashGridVisual
- get empty spaces and available keys
- determine if board is full
- determine if move is valid
- mark board (`[]=` method)
- determine winning player (line) and winner?
- get center spaces, all lines, and empty keys in provided space sets
- private: prompt for board size

- HashGrid with cell type of Space

Abstract

Player

PlayerHuman, PlayerComputer

- has a name
- has a unique mark
- initialize mark (set `mark` independent of instantiation)
- mark board (abstract: input square number/selection strategy)
- display as string (implement `to_s`)
- protected: determine winning lines and keys

- Board

Player

PlayerHuman

- mark board (implement abstract; get input and validate move)
- singleton: request name

Player

PlayerComputer

- mark board (implement abstract; intelligently select key)

GameRoundStatus	
• has win status (true/false) • has win status (true/false) • has winner (Player) • private: has board • check move (determine if board has a winner or is full) • end? (`true` if `win` or `draw`) • display winner • display draw	• Board

Game	
• has a board • has players • has round status • identify players • randomly assign marks to players • play (initialize game, loop through players, play again?) • display welcome and goodbye messages	• Board • Player • GameRoundStatus