```
GAME SETTING
                                                                                                                                                                                            public class Game
Players (2-4):
                                                                                                                                                                                            -) players: List<Player>
                                                                                                                                                                                            -) dice: Dice
                                                                                                                                                                                             +) facadeSheet: Map<Dice.Color, List<FacadeTile>>
                                                                                                                                                                                             -) currentPlayerIndex: int
       status: active / non-active
                                                                                                                                                                                             -) gameOver: boolean
       roll dice
                                                                                                                                                                                            (+) Game()
       draw facade shape
                                                                                                                                                                                            -) initFacadeSheet(): FacadeTile[]
       player sheet
                                                                                                                                                                                            (+) start(): void
                                                                                                                                                                                            (+) registerPlayer(int num): void
                                                                                                                                                                                            -) checkGameOver(): boolean
                                                                                                                                                                                            -) declareWinner(): void
Player sheets:
        score track,
        5* ability tracks
                                                                                                                                  public class Player
                                                                                                                                                                                                              public class Dice
           color
           ability
                                                                                                                                  (-) id: int
                                                                                                                                  (-) score: int
           track: array
                                                                                                                                   (-) grid Grid
                                                                                                                                  (-) tracks: List<AbilityTrack>
           position: int
                                                                                                                                                                                                              (+) Color: enum
                                                                                                                                                                                                              (-) results: Color[]
       building: (Determine if a row or column is complete: Search for
                                                                                                                                  (+) Player()
a 0, and once found, you can skip checking the corresponding row
                                                                                                                                  (+) takeTurn(FacadeTile tile, Pose pose): void
and column.)
                                                                                                                                  (+) advanceTrack(Dice.Color color): void
                                                                                                                                  (-) updateScore(): void
                                                                                                                                                                                                              (+) Dice()
           coats-of-arms
                                                                                                                                  (+) getScore(): int
                                                                                                                                                                                                              (+) roll(): void
               player have access on draw 1 square
                                                                                                                                                                                                              (+) choose(Color color): void
                                                                                                                                                                                                              (+) getResults(): Color[]
               player marks off two squares on one ability track
                                                                                                                                                                                                              (+) getChosen(): Color
                                                                                                                                                                                                              (+) getPossibleTiles(Player activePlayer): Map<Color, FacadeTile>
Facade sheets:
                                                                                                                                                                                                              (+) setChangeColor(int[] dicesToChange, Color color): void
                                                                                                                                                                                                              (+) getRemaining(): Color[]
       infinity column
                                                                                                                                                                                                              (+) reroll(int[] dicesToReroll): void
                                                                                                                                public class AbilityTrack
       X column
Shape:
                                                                                                                                (+) Power: enum
                                                                                                                                (-) color: Color
       4*4 array
                                                                                                                                (-) ability: Ability
                                                                                                                                (-) pos: int
       function: rotate
                                                                                                     Class:
                                                                                                                                (-) shape: Power[]
                                                                                                                                (-) bonusAvailable: int
InfinityShape extend Shape:
                                                                                                                                                                                               , ---
                                                                                                                                                                                                               public class Grid
                                                                                                                               (-) abilityAvailable: int
                                                                                                  attributes
                                                                                                                                                                                                               (+) NUM_ROWS: int
                                                                                                                                (+) AbilityTrack(Dice.Color color, Ability ability, Power[] shape)
XShape extend Shape:
                                                                                                                                                                                                               (+) NUM_COLS: int
                                                                                                                                (+) advance(): void
                                                                                                  operations
                                                                                                                                                                                                               (+) COAT_OF_ARM_ROWS: int[]
                                                                                                                                (+) useAbility(): void
       used: boolean
                                                                                                                                                                                                               (+) COAT_OF_ARM_COLS: int[]
                                                                                                                                (+) useBonus(): void
       crossOut()
                                                                                                                                                                                                               (-) grid: char[][]
                                                                                                                                (+) getPos(): int
                                                                                                                                (+) getAbilityAvailable(): int
       isUsed()
                                                                                                                                (+) getBonusAvailable(): int
Dices:
                                                                                                                                                                                                               (+) Grid()
                                                                                                                                                                                                               (+) checkRowCompletion(): boolean
       5 colors
                                                                                                                                                                                                               (+) checkColumnCompletion(): boolean
                                                                                                  private (-)
                                                                                                                                                                                                               (+) updateGrid(FacadeTile tile, Pose pose): void
       1 white
                                                                                                  public(+)
       roll()
                                                                                                protected(#)
                                                                                                                               public abstract class Ability
Game:
                                                                                           For example, '+(attribute
                                                                                             name): int' is a public
                                                                                                                               (-) name: String
       player
                                                                                                                                                                                                                                                                                               public record Pose(int row, int col, int orientation)
                                                                                           instance attribute called
       registePlayer()
                                                                                                                                                                                                               abstract class FacadeTile
                                                                                              (attribute name).
                                                                                                                               (-) Ability(String name)
                                                                                                                                                                                                                                                                                               (+) row: int
       start()
                                                                                                                               (+) useAbility(Player player): void
                                                                                                                                                                                                                                                                                               (+) col: int
                                                                                                                                                                                                               (-) color: Dice.Color
                                                                                                                                                                                                                                                                                               (+) orientation: int
       reset()
                                                                                                                                                                                                              (-) shape: char[][]
                                                                                                                                public static class Reroll extends Ability
       save()
                                                                                                                                (+) Reroll()
       exit()
                                                                                                                               (+) useAbility(Player player, Dice dice, int[] dicesToReroll): void
                                                                                                                                                                                                               (-) FacadeTile(char[][] shape, int size)
                                                                                                                                                                                                               (+) canBePlaced(Grid grid, Pose pose): boolean
                                                                                                                                                                                                               (+) placeOnGrid(Grid grid, Pose pose): void
                                                                                                                                                                                                                                                              public static class NoX extends Ability
                                                                                                                                                                                                               (+) setColor(Dice.Color color): void
                                                                                                                                                                                                               (+) getColor(): Dice.Color
                                                                                                                                                                                                               public static class InfinityTile extends FacadeTile
                                                                                                                               (+) useAbility(Player player, FacadeTile tile): void
                                                                                                                                                                                                                (+) InfinityTile(String shape, Dice.Color color)
                                                                                                                                public static class UseAgain extends Ability
                                                                                                                                                                                                               public static class XTile extends FacadeTile
                                                                                                                                (+) useAbility(Player player, FacadeTile tile): void
                                                                                                                                                                                                                (-) crossedOut: boolean
                                                                                                                                public static class OneX extends Ability
                                                                                                                               (+) useAbility(Player player, Grid grid, Pose pose): void
                                                                                                                                                                                                               (+) XTile(String shape, De.Color color)
                                                                                                                                                                                                                (+) isCrossedOut(): boolean
                                                                                                                                                                                                               (+) crossOut(): void
                                                                                                                                                                                                               (+) canBePlaced(Grid grid, Pose pose): boolean
                                                                                                                                public static class ColorChange extends Ability
                                                                                                                                                                                                               (+) placeOnGrid(Grid grid, Pose pose): void
                                                                                                                                                                                                               (+) useAgain(Grid grid, Pose pose): void
                                                                                                                                (+) ColorChange()
                                                                                                                                (+) useAbility(Player player, Dice dice): void
```