Milestone 5 UML
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<<interface>> GameController
+ loadMenu()
+ playGame()

<<interface>> Deck
+ use (Card): boolean
+ use (int): boolean
+ putBack(Card):boolean
+ putBack(int)
+ getCard(int): Card
+ getCards(int[]): Card[]
+ getDeck (): String[]
- numOfTypes(): int

<<Enumerate>> Cards
FORWARD
LEFT
RIGHT
LASER
FROG
BUG

<<Enumeration>> Colour
BLUE
RED
PURPLE
GREEN

<<Enumeration>> Direction
NORTH
SOUTH
EAST
WEST

<<interface>> GameView
+ clear ()
+ mainMenu()
+ gameOver()
+ playerSelection()
+ displayGame(String, String, String, boolean, String [])

AdvancedGameController
- input: Scanner
- view: GameView
- model: GameModel

+ AdvancedGameController(GameView)
- initGame()
- generateTurn()
- convertToIndex(ArrayDeque<Integer>: int[]

Advanced Deck

AdvancedGameView

Laser | **Forward** | **Left** | **Right**

<<interface>> Move
+ execute (Turtle)

<<interface>> GameModel
+ gameOver(): boolean
+ playTurn (Card[], Card[])

AdvancedGameModel
- dimensions: int
- finished : boolean
- jewels: ArrayDeque<Jewel>
- players: ArrayDeque<Turtle>
- otherTiles: ArrayDeque<Tile>

+ AdvancedGameModel(int)
+ toString():String
- getMove(Card)

PlayerTurtle

Jewel

<<interface>> Board
+ remove(Tile)
+ getTileAt(Coordinate)
+ inBounds(Coordinate): boolean

<<interface>> Orientable
+ getDir(): Direction
+ setDire(Direction)

Turtle
- direction: Direction
- colour: Colour
- ArrayDeque<Move> moves
- winner: boolean

+ Turtle (Board, Coordinate, Direction, Colour)

<<interface>> Coloured
+ getColour(): Colour

Coordinate
- xPos, yPos: int

+ Coordinate(int, int)
+ x():int
+ y():int
+ toward(Direction): Coordinate
+ equals (Object): boolean

<<interface>> Teleportable

<<interface>> Tile
+ getCoordinate (): Coordinate
+ textIcon (): char
+ accept (Movable): boolean

<<interface>> Pusher
+ getDir(): Direction

<<interface>> Meltable
+ melted(): boolean
+ melt()

<<interface>> Movable
+ visit (Portal): boolean
+ visit (StoneWall): boolean
+ visit (IceWall): boolean
+ visit (Crate): boolean
+ visit (Jewel): boolean
+ visit (Turtle): boolean
+ setCoordinate (Coordinate)

Crates

Portal
- exit: Portal

- Portal(Coordinate)
+ Portal(Coordinate, Coordinate)
+ getExitPortal(): Portal

StoneWall

IceWall

<<interface>> Teleport
+ getExitCoordinate():Coordinate