UML Class Diagram

Dastan

Piece

```
# TypeOfPiece: str
# BelongsTo: Player
# PointsIfCaptured: int
# Symbol: str

<<constructor>> (str, Player, int, str)
+ GetSymbol(): str
+ GetTypeOfPiece(): str
+ GetBelongsTo(): Player
+ GetPointsIfCaptured(): int
```

Move

```
# RowChange: int
# ColumnChange: int

<<constructor>>(int, int)
+ GetRowChange(): int
+ GetColumnChange(): int
```

MoveOption

```
# Name: str
# PossibleMoves: Move[]

<<constructor>> (str)
+ AddToPossibleMoves(Move)
+ GetName(): str
+ CheckIfThereIsAMoveToSquare(int, int): bool
```

Player

```
- Score: int
- Name: str
- Direction: int
- Queue: MoveOptionQueue

<<constructor>> (str, int)
+ SameAs(Player) : bool
+ GetPlayerStateAsString(): str
+ AddToMoveOptionQueue(MoveOption)
+ UpdateQueueAfterMove(int)
+ UpdateMoveOptionQueueWithOffer(int, MoveOption)
+ GetScore(): int
+ GetName() : str
+ GetDirection(): int
+ ChangeScore(int)
+ CheckPlayerMove(int, int, int): bool
```

MoveOptionQueue

```
- Queue: MoveOption[]

<<constructor>>
+ GetQueueAsString(): str
+ Add(MoveOption)
+ Replace(int, MoveOption)
+ MoveItemToBack(int)
+ GetMoveOptionInPosition(int): MoveOption
```

Dastan

```
# Board: Square[]
# Players: Player[]
# MoveOptionOffer: str[]
# NoOfRows: int
# NoOfColumns: int
# MoveOptionOfferPosition: int
# CurrentPlayer: Player

<<constructor>> (int, int, int)
- DisplayBoard()
- DisplayState()
- GetIndexOfSquare(int): int
- CheckSquareInBounds(int): bool
- CheckSquareIsValid(int, bool): bool
- CheckIfGameOver(): bool
- GetSquareReference(str): int
- UseMoveOptionOffer()
- GetPointsForOccupancyByPlayer(Player): int
- UpdatePlayerScore(int)
- CalculatePieceCapturePoints(int): int
+ PlayGame()
- UpdateBoard(int, int)
- DisplayFinalResult()
- CreateBoard()
- CreatePieces(int)
- CreateMoveOptionOffer()
- CreateRyottMoveOption(int): MoveOption
- CreateFaujdarMoveOption(int): MoveOption
- CreateJazairMoveOption(int): MoveOption
- CreateCuirassierMoveOption(int): MoveOption
- CreateChowkidarMoveOption(int): MoveOption
- CreateMoveOption(str, int): MoveOption
- CreateMoveOptions()
```

Square

```
# PieceInSquare: Piece
# BelongsTo: Player
# Symbol: str

<<constructor>>
+ SetPiece(Piece)
+ RemovePiece(): Piece
+ GetPieceInSquare(): Piece
+ GetSymbol(): str
+ GetPointsForOccupancy(Player): int
+ GetBelongsTo(): Player
+ ContainsKotla(): bool
```

Kotla

```
<<constructor>> (Player, str)
<<override>> + GetPointsForOccupancy(Player): int
```

<<belongs to>>