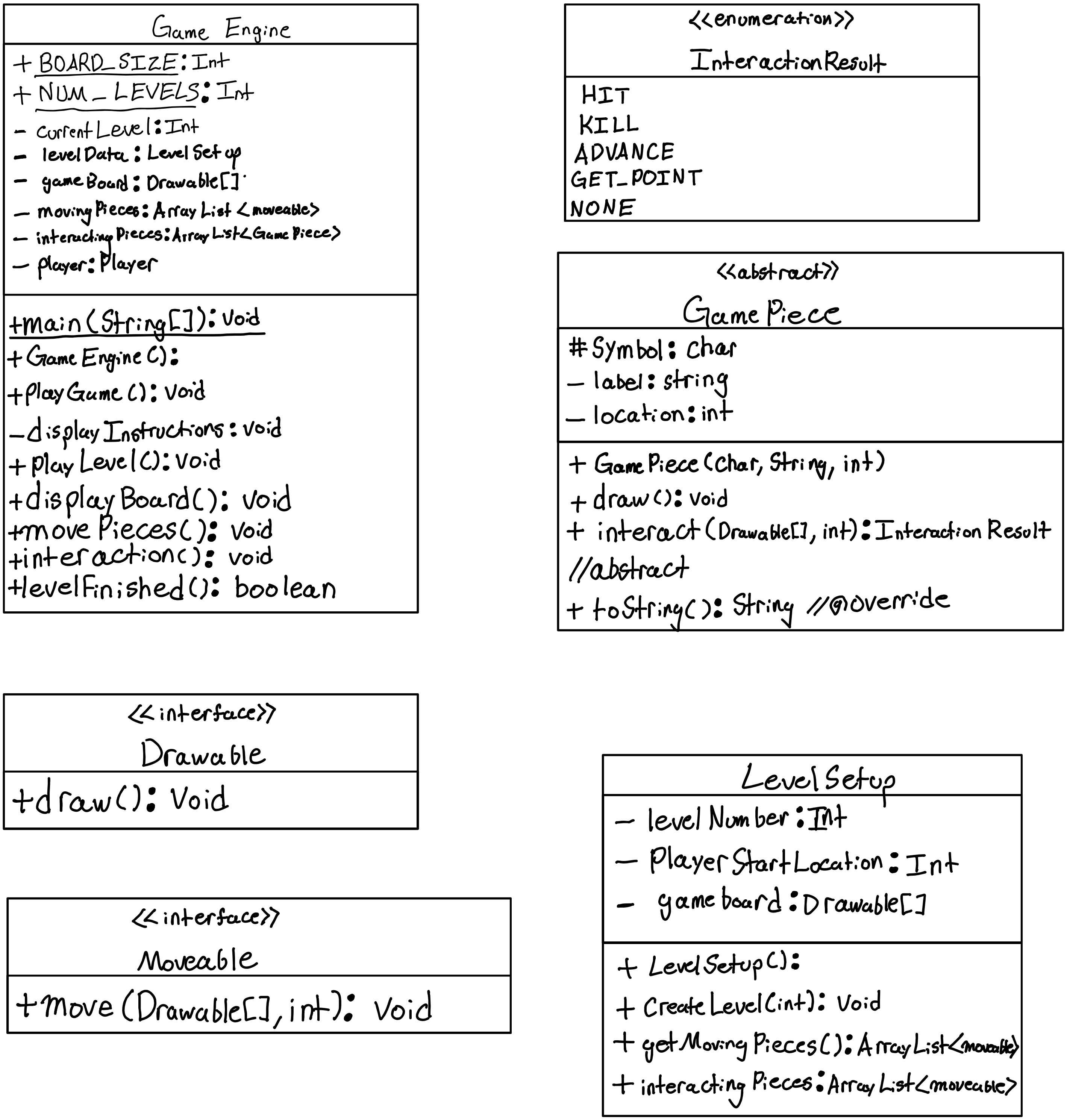
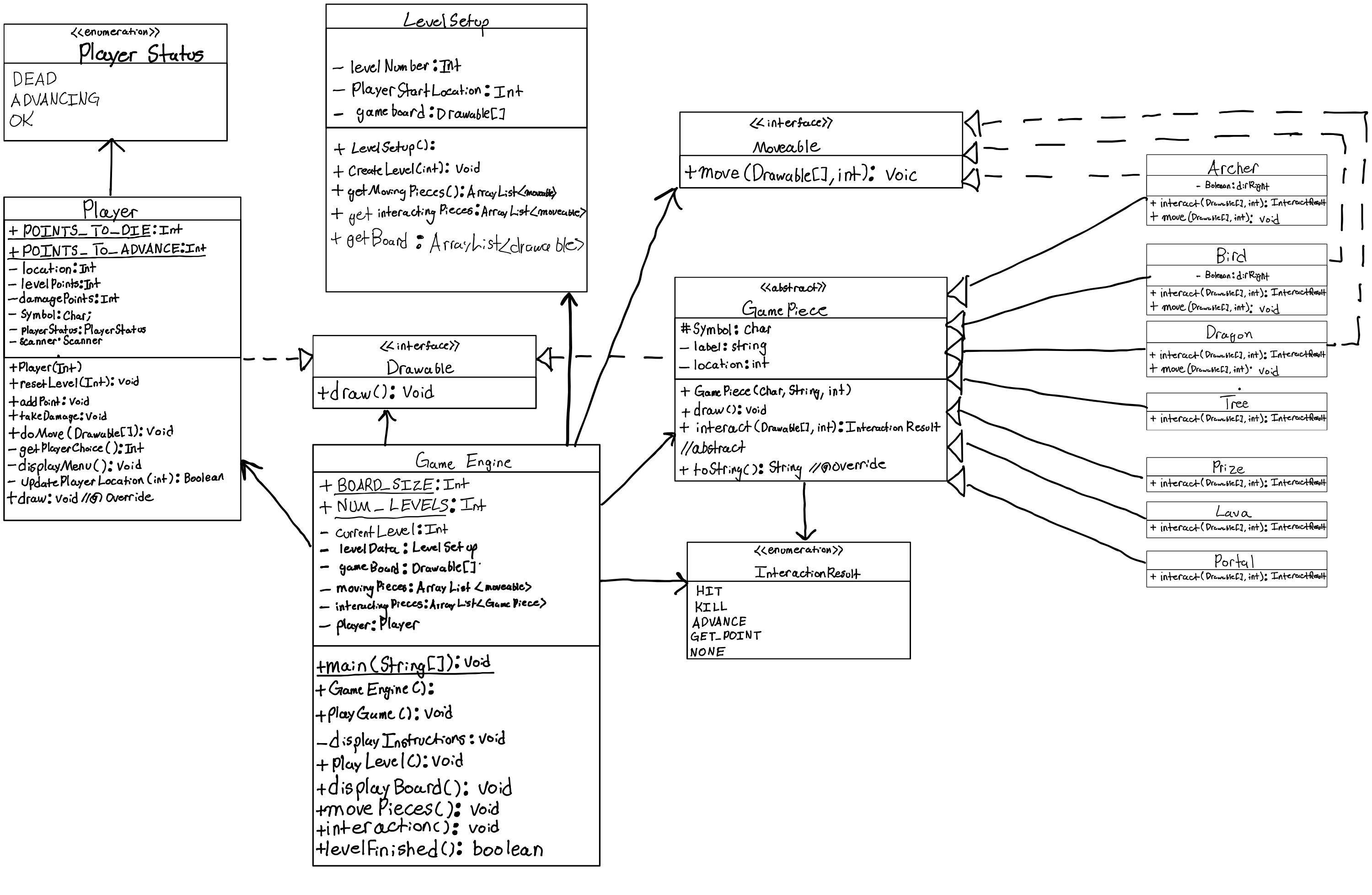
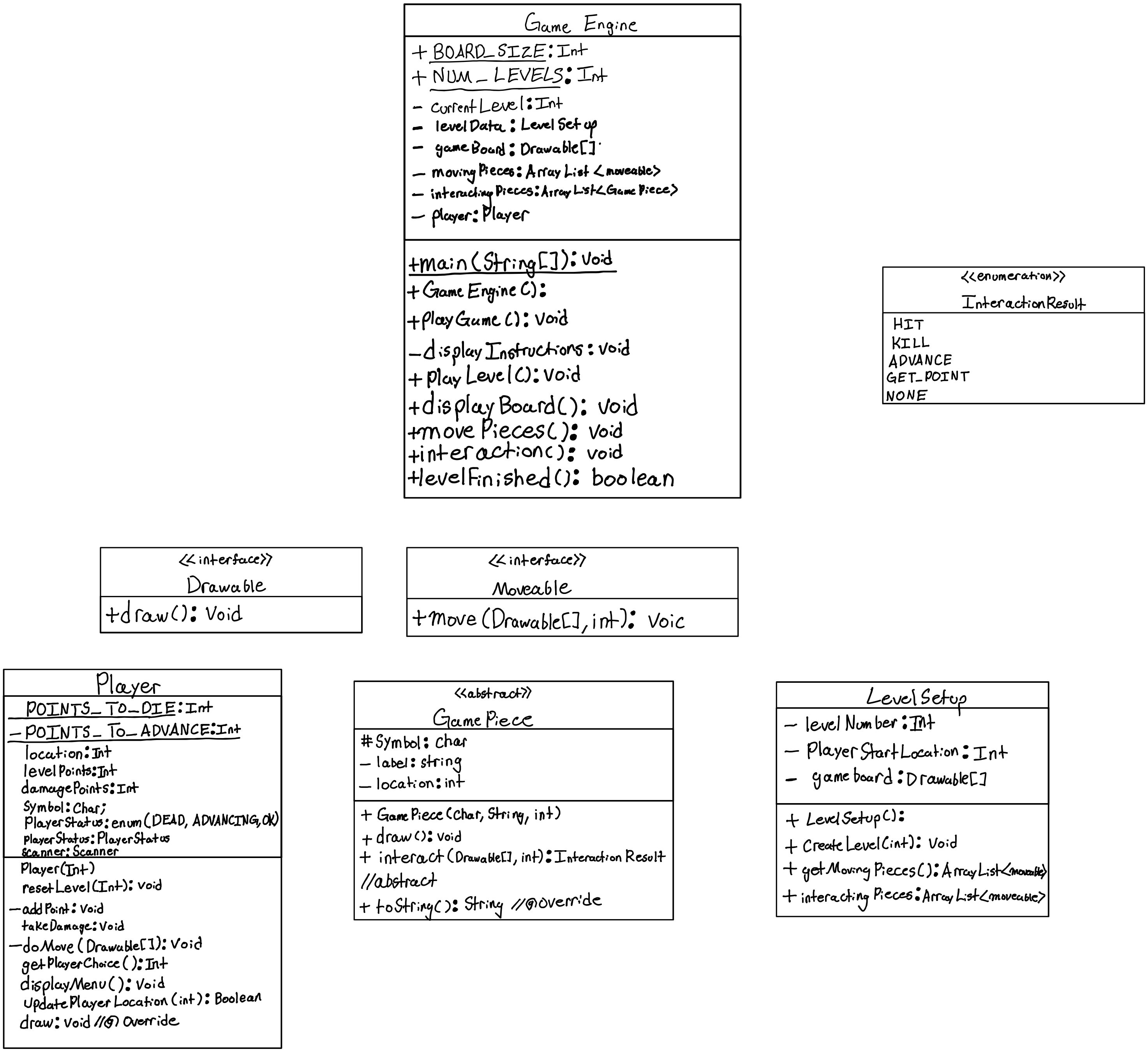
Game Engine
+ BOARD_SIZE: Int
+ NUM_LEVELS: Int
- currentLevel: Int
- levelData: LevelSetup
- gameBoard: Drawable[]
- movingPieces: ArrayList<moveable>
- interactingPieces: ArrayList<GamePiece>
- player: Player
+main(String[]): Void
+GameEngine():
+playGame(): void
-displayInstructions: void
+playLevel(): void
+displayBoard(): void
+movePieces(): void
+interaction(): void
+levelFinished(): boolean
<<enumeration>>
InteractionResult
HIT
KILL
ADVANCE
GET_POINT
NONE
<<abstract>>
GamePiece
#Symbol: char
- label: string
- location: int
+ GamePiece(char, String, int)
+ draw(): void
+ interact(Drawable[], int): Interaction Result
//abstract
+ toString(): String //@override
<<interface>>
Drawable
+draw(): Void
<<interface>>
Moveable
+move(Drawable[], int): Void
LevelSetup
- levelNumber: Int
- PlayerStartLocation: Int
- gameboard: Drawable[]
+ LevelSetup():
+ CreateLevel(int): Void
+ getMovingPieces(): ArrayList<moveable>
+ interactingPieces: ArrayList<moveable>

```
Player
+ POINTS_TO_DIE:Int
+ POINTS_To_ADVANCE:Int
- location:Int
- levelPoints:Int
-damagePoints:Int
- Symbol:Char;
- PlayerStatus:enum(DEAD, ADVANCING,OK)
- playerStatus:PlayerStatus
- scanner:Scanner
+Player(Int)
+resetLevel(Int): void
+addPoint: Void
+takeDamage:Void
+doMove(Drawable[]): Void
-getPlayerChoice():Int
-displayMenu(): Void
- UpdatePlayerLocation(int): Boolean
+draw: void //@ Override
```


<<enumeration>>
Player Status
DEAD
ADVANCING
OK
Player
+ POINTS_TO_DIE: Int
+ POINTS_To_ADVANCE: Int
- location: Int
- levelPoints: Int
-damagePoints: Int
- Symbol: Char;
- playerStatus: PlayerStatus
- scanner: Scanner
+Player(Int)
+resetLevel(Int): void
+addPoint: Void
+takeDamage: Void
+doMove (Drawable[]): Void
- getPlayerChoice(): Int
-displayMenu(): Void
- UpdatePlayerLocation (int): Boolean
+draw: void //@ Override
Level Setup
- level Number: Int
- PlayerStartLocation: Int
- game board: Drawable[]
+ LevelSetup():
+ CreateLevel(int): Void
+ getMovingPieces(): ArrayList<moveable>
+ get interacting Pieces: ArrayList<moveable>
+ getBoard : ArrayList<drawable>
<<interface>>
Drawable
+draw(): Void
Game Engine
+ BOARD_SIZE: Int
+ NUM_LEVELS: Int
- currentLevel: Int
- levelData: Level Set up
- gameBoard: Drawable[]
- movingPieces: Array List <moveable>
- interactingPieces: Array List<Game Piece>
- player: Player
+main(String[]): Void
+GameEngine():
+playGame(): void
-displayInstructions: void
+playLevel(): void
+displayBoard(): void
+movePieces(): void
+interaction(): void
+levelFinished(): boolean
<<interface>>
Moveable
+move(Drawable[], int): Voic
<<abstract>>
Game Piece
#Symbol: char
- label: string
- location: int
+ GamePiece(Char, String, int)
+ draw(): void
+ interact(Drawable[], int): Interaction Result
//abstract
+ toString(): String //@override
<<enumeration>>
InteractionResult
HIT
KILL
ADVANCE
GET_POINT
NONE
Archer
- Boleean: dirRight
+ interact(Drawable[], int): InteractResult
+ move(Drawable[], int): void
Bird
- Boleean: dirRight
+ interact(Drawable[], int): InteractResult
+ move(Drawable[], int): void
Dragon
+ interact(Drawable[], int): InteractResult
+ move(Drawable[], int): void
Tree
+ interact(Drawable[], int): InteractResult
Prize
+ interact(Drawable[], int): InteractResult
Lava
+ interact(Drawable[], int): InteractResult
Portal
+ interact(Drawable[], int): InteractResult



```
Game Engine
+ BOARD_SIZE: Int
+ NUM_LEVELS: Int
- currentLevel: Int
- levelData: Level Setup
- gameBoard: Drawable[]
- movingPieces: Array List <moveable>
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- player: Player
+main(String[]): Void
+Game Engine():
+PlayGame(): Void
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+play Level(): Void
+displayBoard(): Void
+move Pieces(): Void
+interaction(): void
+levelFinished(): boolean
```

```
<<enumeration>>
InteractionResult
HIT
KILL
ADVANCE
GET_POINT
NONE
```

```
<<interface>>
Drawable
+draw(): Void
```

```
<<interface>>
Moveable
+move(Drawable[], int): Voic
```

```
Player
POINTS_TO_DIE: Int
-POINTS_To_ADVANCE: Int
location: Int
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damagePoints: Int
Symbol: Char;
PlayerStatus: enum(DEAD, ADVANCING, OK)
playerStatus: PlayerStatus
scanner: Scanner
Player(Int)
resetLevel(Int): void
-addPoint: Void
takeDamage: Void
-doMove(Drawable[]): Void
getPlayerChoice(): Int
displayMenu(): Void
UpdatePlayerLocation(int): Boolean
draw: Void //@ Override
```

```
<<abstract>>
Game Piece
#Symbol: char
- label: string
- location: int
+ GamePiece(Char, String, int)
+ draw(): void
+ interact(Drawable[], int): Interaction Result
//abstract
+ toString(): String //@override
```

```
Level Setup
- level Number: Int
- Player Start Location: Int
- gameboard: Drawable[]
+ LevelSetup():
+ CreateLevel(int): Void
+ getMovingPieces(): ArrayList<moveable>
+ interacting Pieces: Array List<moveable>
```