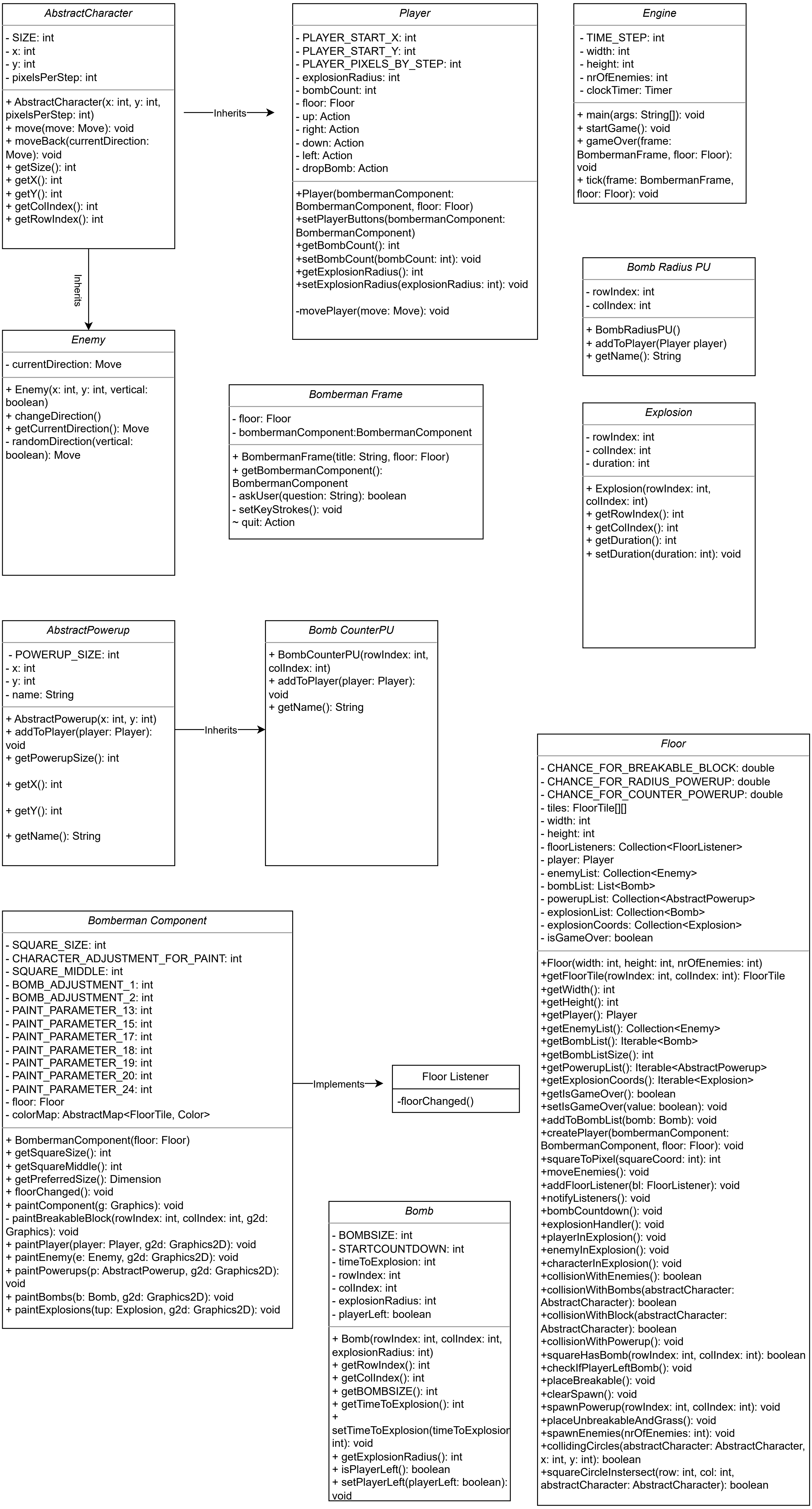

AbstractCharacter

- SIZE: int
- x: int
- y: int
- pixelsPerStep: int

+ AbstractCharacter(x: int, y: int, pixelsPerStep: int)
+ move(move: Move): void
+ moveBack(currentDirection: Move): void
+ getSize(): int
+ getX(): int
+ getY(): int
+ getColIndex(): int
+ getRowIndex(): int

Player

- PLAYER_START_X: int
- PLAYER_START_Y: int
- PLAYER_PIXELS_BY_STEP: int
- explosionRadius: int
- bombCount: int
- floor: Floor
- up: Action
- right: Action
- down: Action
- left: Action
- dropBomb: Action

+Player(bombermanComponent: BombermanComponent, floor: Floor)
+setPlayerButtons(bombermanComponent: BombermanComponent)
+getBombCount(): int
+setBombCount(bombCount: int): void
+getExplosionRadius(): int
+setExplosionRadius(explosionRadius: int): void

-movePlayer(move: Move): void

Engine

- TIME_STEP: int
- width: int
- height: int
- nrOfEnemies: int
- clockTimer: Timer

+ main(args: String[]): void
+ startGame(): void
+ gameOver(frame: BombermanFrame, floor: Floor): void
+ tick(frame: BombermanFrame, floor: Floor): void

Bomb Radius PU

- rowIndex: int
- colIndex: int

+ BombRadiusPU()
+ addToPlayer(Player player)
+ getName(): String

Enemy

- currentDirection: Move

+ Enemy(x: int, y: int, vertical: boolean)
+ changeDirection()
+ getCurrentDirection(): Move
- randomDirection(vertical: boolean): Move

Bomberman Frame

- floor: Floor
- bombermanComponent:BombermanComponent

+ BombermanFrame(title: String, floor: Floor)
+ getBombermanComponent(): BombermanComponent
- askUser(question: String): boolean
- setKeyStrokes(): void
~ quit: Action

Explosion

- rowIndex: int
- colIndex: int
- duration: int

+ Explosion(rowIndex: int, colIndex: int)
+ getRowIndex(): int
+ getColIndex(): int
+ getDuration(): int
+ setDuration(duration: int): void

AbstractPowerup

- POWERUP_SIZE: int
- x: int
- y: int
- name: String

+ AbstractPowerup(x: int, y: int)
+ addToPlayer(player: Player): void
+ getPowerupSize(): int

+ getX(): int

+ getY(): int

+ getName(): String

Bomb CounterPU

+ BombCounterPU(rowIndex: int, colIndex: int)
+ addToPlayer(player: Player): void
+ getName(): String

Floor

- CHANCE_FOR_BREAKABLE_BLOCK: double
- CHANCE_FOR_RADIUS_POWERUP: double
- CHANCE_FOR_COUNTER_POWERUP: double
- tiles: FloorTile[][]
- width: int
- height: int
- floorListeners: Collection<FloorListener>
- player: Player
- enemyList: Collection<Enemy>
- bombList: List<Bomb>
- powerupList: Collection<AbstractPowerup>
- explosionList: Collection<Bomb>
- explosionCoords: Collection<Explosion>
- isGameOver: boolean

+Floor(width: int, height: int, nrOfEnemies: int)
+getFloorTile(rowIndex: int, colIndex: int): FloorTile
+getWidth(): int
+getHeight(): int
+getPlayer(): Player
+getEnemyList(): Collection<Enemy>
+getBombList(): Iterable<Bomb>
+getBombListSize(): int
+getPowerupList(): Iterable<AbstractPowerup>
+getExplosionCoords(): Iterable<Explosion>
+getIsGameOver(): boolean
+setIsGameOver(value: boolean): void
+addToBombList(bomb: Bomb): void
+createPlayer(bombermanComponent: BombermanComponent, floor: Floor): void
+squareToPixel(squareCoord: int): int
+moveEnemies(): void
+addFloorListener(bl: FloorListener): void
+notifyListeners(): void
+bombCountdown(): void
+explosionHandler(): void
+playerInExplosion(): void
+enemyInExplosion(): void
+characterInExplosion(): void
+collisionWithEnemies(): boolean
+collisionWithBombs(abstractCharacter: AbstractCharacter): boolean
+collisionWithBlock(abstractCharacter: AbstractCharacter): boolean
+collisionWithPowerup(): void
+squareHasBomb(rowIndex: int, colIndex: int): boolean
+checkIfPlayerLeftBomb(): void
+placeBreakable(): void
+clearSpawn(): void
+spawnPowerup(rowIndex: int, colIndex: int): void
+placeUnbreakableAndGrass(): void
+spawnEnemies(nrOfEnemies: int): void
+collidingCircles(abstractCharacter: AbstractCharacter, x: int, y: int): boolean
+squareCircleIntersect(row: int, col: int, abstractCharacter: AbstractCharacter): boolean

Bomberman Component

- SQUARE_SIZE: int
- CHARACTER_ADJUSTMENT_FOR_PAINT: int
- SQUARE_MIDDLE: int
- BOMB_ADJUSTMENT_1: int
- BOMB_ADJUSTMENT_2: int
- PAINT_PARAMETER_13: int
- PAINT_PARAMETER_15: int
- PAINT_PARAMETER_17: int
- PAINT_PARAMETER_18: int
- PAINT_PARAMETER_19: int
- PAINT_PARAMETER_20: int
- PAINT_PARAMETER_24: int
- floor: Floor
- colorMap: AbstractMap<FloorTile, Color>

+ BombermanComponent(floor: Floor)
+ getSquareSize(): int
+ getSquareMiddle(): int
+ getPreferredSize(): Dimension
+ floorChanged(): void
+ paintComponent(g: Graphics): void
- paintBreakableBlock(rowIndex: int, colIndex: int, g2d: Graphics): void
+ paintPlayer(player: Player, g2d: Graphics2D): void
+ paintEnemy(e: Enemy, g2d: Graphics2D): void
+ paintPowerups(p: AbstractPowerup, g2d: Graphics2D): void
+ paintBombs(b: Bomb, g2d: Graphics2D): void
+ paintExplosions(tup: Explosion, g2d: Graphics2D): void

Floor Listener

-floorChanged()

Bomb

- BOMBSIZE: int
- STARTCOUNTDOWN: int
- timeToExplosion: int
- rowIndex: int
- colIndex: int
- explosionRadius: int
- playerLeft: boolean

+ Bomb(rowIndex: int, colIndex: int, explosionRadius: int)
+ getRowIndex(): int
+ getColIndex(): int
+ getBOMBSIZE(): int
+ getTimeToExplosion(): int
+ setTimeToExplosion(timeToExplosio int): void
+ getExplosionRadius(): int
+ isPlayerLeft(): boolean
+ setPlayerLeft(playerLeft: boolean): void