Technical Documentation

- **UML FOR Main class:**

```
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|      Main        |

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| - WIDTH: int          |

| - HEIGHT: int         |

| - RADIUS: int         |

 | - TIME: int          |

 | - score: int         |

| - root: Pane         |

| - random: Random      |

 | - food: Circle       |

 | - snake: Snake       |

 | - startButton: Button  |

| - retryButton: Button  |

| - exitButton: Button   |

| - pauseButton: Button  |
```
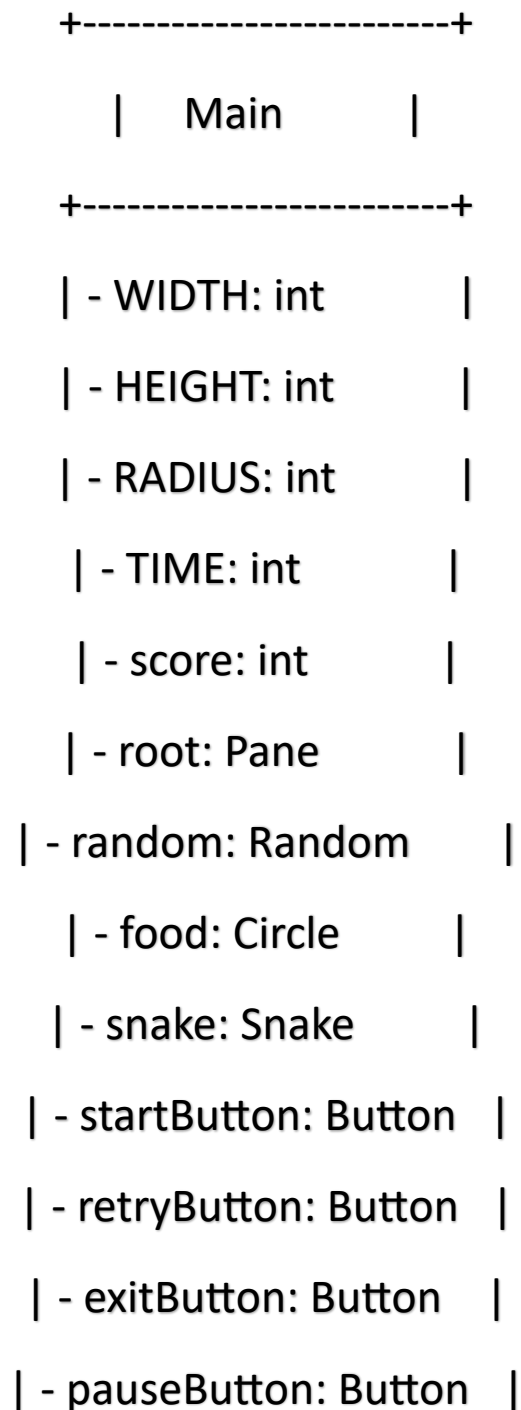
```
| - backButton: Button     |
| - classicButton: Button |
| - modernButton: Button  |
| - timeline: Timeline     |
| - scoreText: Text        |
| - mediaPlayer1: MediaPlayer |
| - mediaPlayer2: MediaPlayer |
| - mediaPlayer3: MediaPlayer |
| - isClassicMode: boolean |
| - gameOver: boolean      |
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| + handleStartButton(): void |
| + handleClassicButton(): void |
| + handleModernButton(): void |
| + createFood(): void     |
| + createSnake(): void    |
| + addChessBoardBackground(): void |
| + startGame(): void      |
| + move(): void           |
```

```
| + adjustLocation(): void |

| + adjustLocation2(): void |

| + checkCollision(): boolean |

| + checkGameOver(): boolean |

| + checkGameOver2(): boolean |

| + gameOver(): void       |

| + handleRetryButton(): void |

| + handleexitButton(): void |

| + handlepauseButton(): void |

| + handleBackButton(): void |

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```

- **UML FOR Snake class:**

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|     Snake        |

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| - tails: List<Circle> |

| - length: int    |

| - currentDirection: Direction |
```

```
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| + Snake(d: double, d1: double, d2: double) |
| + getLength(): int |
| + step(): void    |
| + getCurrentDirection(): Direction |
| + setCurrentDirection(currentDirection: Direction): void |
| + endTail(): Circle |
| + eat(food: Circle): void |
| + eatSelf(): boolean |
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```

- **UML FOR Direction class:**

```
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|    Direction     |
+------------------+
| + UP             |
| + DOWN           |
| + LEFT           |
| + RIGHT          |
+------------------+
```