**TRACEABILITY TABLE**

Videogame Integrative Task 2

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| **Functional** Requirement | **Class Name** | **Method name** |
| Set game resolution | VideoGameController | setResolution(resolution: int): void |
| showResolutions(): String |
| Player registration | VideoGameManager | registerPlayer(): void |
| VideoGameController | addPlayer(): boolean |
| searchPlayer(id: String): Player |
| showPlayers(): String |
| Player | Player(id: String, name: String): void |
| Level registration | VideoGameController | addLevel(scoreLimit: double): boolean |
| Level | Level(scoreLimit: double): void |
| setId(id: int): void |
| Treasure registration | VideoGameManager | registerTreasure(): void |
| VideoGameController | addTreasure(name: String, pictureUrl: String, scoreAddition: double): boolean |
| searchTreasure(name: String): Treasure |
| showTreasures(): String |
| Treasure | Treasure(name: String, pictureUrl: String, scoreAddition: double): void |
| Enemy registration | VideoGameManager | registerEnemy(): void |
| VideoGameController | addEnemy(id: String, type: int, scoreAddition: double, scoreSubstraction: double): boolean |
| searchEnemy(id: String): Enemy |
| showEnemies(): String |
| Enemy | Enemy(id: String, type: int, scoreAddition: double, scoreSubstraction: double): void |
| Register Enemy to a level | VideoGameManager | registerEnemyToLevel(): void |
| VideoGameController | showEnemies(): String |
| addEnemyToLevel(enemyId: String, levelId: int): boolean |
| searchEnemy(enemyId: String): Enemy |
| searchLevel(levelId: int): Level |
| generatePosition(): int[2] |
| isPositionTaken(position: int[2]): boolean |
| showLevelObjects(id: int): String |
| Level | addEnemy(newEnemy: Enemy, position int[2]): boolean |
| Register treasure to level | VideoGameManager | registerTreasureToLevel(): void |
| VideoGameController | showTreasures(): String |
| addTreasureToLevel(treasureName: String, levelId: int): boolean |
| searchTreasure(treasureName: String): Treasure |
| searchLevel(levelId: int): Level |
| generatePosition(): int[2] |
| isPositionTaken(position: int[2]): boolean |
| Treasure | Treasure(name: String, pictureUrl: String, scoreAddition: double): void |
| Level | addTreasure(newTreasure: Treasure): boolean |
| Change player score | VideoGameManager | modifyPlayerScore(): void |
| VideoGameController | searchPlayer(id: String): Player |
| Player | getScore(): double |
| setScore(score: double): void |
| Increase player level | VideoGameManager | increasePlayerLevel(): void |
| VideoGameController | increasePlayerLevel(playerId: String, levelId: int): double |
| searchPlayer(playerId: String): Player |
| searchLevel(levelId: int): Level |
| Player | getScore(): double |
| getLevel(): int |
| Level | getScoreLimit(): double |
| Print treasures and enemies of a level | VideoGameManager | printLevelObjects(): void |
| VideoGameController | printLevelObjects(levelId: int): String |
| Level | showEnemies(): String |
| showTreasures(): String |
| Count treasure name | VideoGameManager | countTreasureName(): void |
| VideoGameController | showTreasures(): String |
| countTreasureName(treasureName: String): int |
| Level | countTreasureName(treasureName: String): int |
| Treasure | getName(): String |
| Count enemy type | VideoGameManager | countEnemyType(): void |
| VideoGameController | showEnemyTypes(): String |
| countEnemyType(enemyType: int): int |
| Level | countEnemyType(enemyType: int): int |
| Check most repeated treasure | VideoGameManager | mostRepeatedTreasure(): void |
| VideoGameController | mostRepeatedTreasure(): String |
| showTreasures(): String |
| countTreasureName(treasureName: String): int |
| Treasure | getName(): String |
| Check most valuable enemy | VideoGameManager | mostValuableEnemy(): void |
| VideoGameController | mostValuableEnemy(): String |
| Count enemy name consonants | VideoGameManager | countEnemyNameConsonants(): void |
| VideoGameController | countEnemyNameConsonants(): int |
| Enemy | getName(): String |
| Print player top 5 | VideoGameManager | printPlayerTop(topLimit: int): void |
| VideoGameController | printPlayerTopFive (): String |
| isPlayerInTop(tmpPlayer: Player, topPlayers: Player[]): boolean |
| countRealPlayers(players: Player[]): int |
| getTopPlayer(topPlayers: Player[]): Player |