

| Requerimiento Funcional | Nombre de la Clase | Nombre del método                                       |
|-------------------------|--------------------|---|
| R1: Register level      | Class Game         | addLevel(idNum : int, pointToNextLevel : int) ; boolean |
|                         | Class Game         | searchLevel(idNum : String) : Level                     |
|                         | Class Level        | Level(idNum : int, pointToNextLevel : int)              |
|                         | Class Level        | setDifficulty(aDifficulty) : String                     |
|                         | Class Game         | calculateLevel(nickname : String) : int                 |
|                         | Class Game         | calculateDifficultyLevel(idNum : int) : String          |
|                         | Class Level        | sumTotalPointsLevel() : int                             |

| Requerimiento Funcional | Nombre de la Clase | Nombre del método                                     |
|-------------------------|--------------------|---|
| R2: Create a player     | Class Game         | addPlayer(nickname : String, name : String) : boolean |
|                         | Class Game         | checkRepeatNickname() : boolean                       |
|                         | Class Player       | Player(nickname : String, name : String)              |

| Requerimiento Funcional | Nombre de la Clase | Nombre del método   |
|-------------------------|--------------------|---|
| R3: Register enemy      | Class Game         | createEnemy(nameE : String, typeE : typeEnemy, pointsE : int, damagePoints : int) : boolean |
|                         | Class Level        | addEnemy(aEnemy) : boolean  |

|  |             |  |
|--|-------------|--|
|  | Class Enemy | Enemy(nameE : String, typeE : String, damagePoints : int, pointsE : int) |
|  | Class Enemy | generateRandomX() : int  |
|  | Class Enemy | generateRandomY() : int  |

| Requerimiento Funcional | Nombre de la Clase | Nombre del método  |
|-------------------------|--------------------|--|
| R4: Register treasures  | Class Game         | createTreasure(nameT : String, image : String, pointsT : String) : boolean |
|                         | Class Level        | addTreasure(aTreasure, quantityTreasures : int) : boolean                  |
|                         | Class Treasure     | Treasure(nameT : String, image : String, pointsT : String)                 |
|                         | Class Treasure     | generateRandomX() : int  |
|                         | Class Treasure     | generateRandomY() : int  |

| Requerimiento Funcional     | Nombre de la Clase | Nombre del método                                      |
|-----------------------------|--------------------|--|
| R5: Modify a player's score | Class Game         | modifyPointsPlayer(nickname : String, newPoints : int) |
|                             | Class Game         | searchPlayer(nickname String) : Player                 |
|                             | Class Player       | setPoints(points): void<br>getPoints(): int            |

| Requerimiento Funcional         | Nombre de la Clase | Nombre del método                               |
|---------------------------------|--------------------|---|
| R6: Increase level for a player | Class Game         | increaseLevelPlayer(nickname : String) : String |
|                                 | Class Game         | searchPlayer(nickname String) : Player          |
|                                 | Class Level        | getPointsToNextLevel(): int                     |
|                                 | Class Player       | getPoints(): int                                |

| Requerimiento Funcional                               | Nombre de la Clase | Nombre del método                                  |
|---|--------------------|--|
| R7: Report the treasures and enemies of a given level | Class Game         | reportTreasuresAndEnemies(idNum : String) : String |
|   | Class Game         | searchLevel(idNum : String) : Level                |
|   | Class Level        | haveTreasure() : boolean                           |
|   | Class Level        | haveEnemy() : boolean                              |
|   | Class Treasure     | get*(): *  |
|   | Class Enemy        | get*(): *  |

| Requerimiento Funcional                                | Nombre de la Clase | Nombre del método  |
|--|--------------------|--|
| R8: Report the amount of treasures found at all levels | Class Game         | reportTreasuresAllLevels(nameTreasureToSearch : String) : String |
|  | Class Game         | searchTreasure(nameT : String) : Treasure                        |

| Requerimiento Funcional                               | Nombre de la Clase | Nombre del método   |
|---|--------------------|---|
| R9: Report the amount found of an enemy in all levels | Class Game         | reportEnemiesAllLevels(typeEnemyToSearch : enum) : String |
|   | Class Game         | searchEnemy(nameE : String) : Enemy                       |
|   | Class Enemy        | get*(): *   |
|   | Class Level        | haveEnemy() : boolean                                     |

| Requerimiento Funcional                              | Nombre de la Clase | Nombre del método               |
|--|--------------------|---------------------------------|
| R10: Inform the most repeated treasure in all levels | Class Game         | mostRepeatedTreasure() : String |
|  | Class Level        | haveTreasure() : boolean        |
|  | Class Treasure     | get*(): *                       |

| Requerimiento Funcional  | Nombre de la Clase | Nombre del método            |
|--|--------------------|------------------------------|
| R11: Inform the enemy that gives the highest score and the level where it is located | Class Game         | enemyHighestScore() : String |
|  | Class Level        | haveEnemy() : boolean        |
|  | Class Enemy        | get*(): *                    |

| Requerimiento Funcional  | Nombre de la Clase | Nombre del método          |
|--|--------------------|----------------------------|
| R12: Report the number of consonants found in the names of the enemies in the game | Class Game         | consonantFounds() : String |
|  | Class Level        | haveEnemy() : boolean      |
|  | Class Enemy        | getNameE(): String         |
|  | Class Enemy        | get*(): *                  |

| Requerimiento Funcional                                     | Nombre de la Clase | Nombre del método      |
|---|--------------------|------------------------|
| R13: Inform the top 5 of the players according to the score | Class Game         | top5Players() : String |
|   | Class Player       | getPoints(): int       |
|   | Class Player       | get*(): *              |