**TRACEABILITY TABLE**

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**PLAYER CREATION**

| **Method** | **Operation** | **Class** |
| --- | --- | --- |
| **executeOption()** | Request for information. | Main |
| **createPlayer()** | It is responsible for creating players. | VideoGame, Player |
| **setNickName()** | Set the user's nickname and verify that it is not repeated. | VideoGame, Player |
| **setName()** | Sets the user's name. | VideoGame, Player |
| **initPlayer()** | It is responsible for initializing the player's lives and score. | VideoGame, Player |

**LEVEL CREATION**

| **Method** | **Operation** | **Class** |
| --- | --- | --- |
| **executeOption()** | Request for information. | Main |
| **createLevel()** | It is responsible for creating the levels. | VideoGame, Level |
| **setLevelId()** | Sets the level identifier. | VideoGame, Level |
| **setLevelScore()** | Sets the points required to pass to the next level. | VideoGame, Level |
| **addTreasures()** | It is in charge of adding treasures already registered to a level. | VideoGame, Level, Treasures |
| **addEnemies()** | It is in charge of adding enemies already registered to a level. | VideoGame, Level, Enemies |
| **searchTreasuresByName()** | It is in charge of finding the treasure to be added by name. | VideoGame, Level, Treasures |
| **searchEnemiesByName()** | It is in charge of finding the enemy to be added by name. | VideoGame, Level, Enemies |
| **getTreasures()** | Obtains the treasures to be able to add them. | VideoGame, Level, Treasures |
| **getEnemies()** | Obtains the enemies to be able to add them. | VideoGame, Level, Enemies |

**ENEMY REGISTRATION IN LEVEL**

| **Method** | **Operation** | **Class** |
| --- | --- | --- |
| **executeOption()** | Request for information. | Main |
| **registerEnemyInLevel()** | It is responsible for registering the enemies in each level. | VideoGame, Level, Enemy |
| **setEnemyId()** | Sets the ID of the enemy to register. | Level, Enemy |
| **setEnemyType()** | Sets the type of enemy to search (Ogres, Abstracts, Boss, Magical). | Level, Enemy |
| **setReducedScore()** | Sets the score that will be taken away from the player. | Level, Enemy |
| **setWinnerScore()** | Sets the score the player earns by defeating the enemy. | Level, Enemy |
| **getRandomPixelPositionX()** | Gets the random X-axis position where the enemy will go. | Level, Enemy |
| **getRandomPixelPositionY()** | Gets the random Y-axis position where the enemy will go. | Level, Enemy |

**TREASURE REGISTRATION IN LEVEL**

| **Method** | **Operation** | **Class** |
| --- | --- | --- |
| **executeOption()** | Request for information. | Main |
| **registerTreasureInLevel()** | It is responsible for registering the treasures at each level. | VideoGame, Level,Treasure |
| **setTreasureName()** | Establish the name that the treasure will have. | Level, Treasure |
| **setLinkImageUrl()** | Set the URL image that the treasure will have in the game. | Level, Treasure |
| **setScore()** | Sets the score the player will receive when the treasure is found. | Level, Treasure |
| **getRandomPixelPositionX()** | Gets the random X-axis position where the treasure will go. | Level, Treasure |
| **getRandomPixelPositionY()** | Gets the random Y-axis position where the treasure will go. | Level, Treasure |

**MODIFY PLAYER SCORE**

| **Method** | **Operation** | **Class** |
| --- | --- | --- |
| **executeOption()** | Request for information. | Main |
| **changePlayerScore()** | It is responsible for modifying the player's score. | VideoGame,Player |
| **searchPlayerByNickname ()** | Searches for the player by nickname. | VideoGame, Player |
| **getPlayerNickname()** | Obtains players' nicknames to validate information. | VideoGame,Player |
| **setNewPlayerScore()** | Sets the new score to the player. | VideoGame,Player |

**INCREASE PLAYER LEVEL**

| **Method** | **Operation** | **Class** |
| --- | --- | --- |
| **executeOption()** | Request for information. | Main |
| **playerPlusScore()** | It is in charge of increasing the player's level, in case he is not able to do so, he must inform how many points he needs to level up. | VideoGame, Player, Level |
| **searchPlayerByNickname ()** | Searches for the player by nickname. | VideoGame, Player |
| **getPlayerNickname()** | Obtains players' nicknames to validate information. | VideoGame,Player |
| **getPlayerScore()** | It is responsible for obtaining the player's points. | Player, Level |

**REPORT TREASURES AND ENEMIES**

| **Method** | **Operation** | **Class** |
| --- | --- | --- |
| **executeOption()** | Request for information. | Main |
| **getTreasuresnEnemies()** | It is the method in charge of informing about the treasures and enemies that are in a level to choose. | VideoGame,Level,Treasure, Enemy |
| **searchLevelById()** | It is in charge of searching for the level requested by the user. | VideoGame, Level |
| **getLevelId()** | Get the ID of the level to validate the information and display the one the user requested. | VideoGame, Level |

**REPORT THE NUMBER OF TREASURES AT ALL LEVELS**

| **Method** | **Operation** | **Class** |
| --- | --- | --- |
| **executeOption()** | Request for information. | Main |
| **searchTreasureByName()** | It is in charge of searching for the treasure requested by the user. | VideoGame, Level,Treasure |
| **getTreasures()** | It is in charge of obtaining treasures to validate information. | Level,Treasure |
| **getAlllevels()** | It is responsible for obtaining all levels to verify data. | VideoGame, Level |
| **allTreasures()** | It is responsible for displaying on screen the name of the requested treasure and how many times it appears in all levels. | VideoGame,Level,Treasure |

**REPORT THE NUMBER OF ENEMY TYPES AT ALL LEVELS**

| **Method** | **Operation** | **Class** |
| --- | --- | --- |
| **executeOption()** | Request for information. | Main |
| **searchEnemiesByType()** | It is in charge of searching for all enemies according to their type. | Level, Enemy |
| **getTypeEnemies()** | It is responsible for obtaining enemy types to confirm the data. | Level, Enemy |
| **allEnemies()** | It is the method in charge of displaying all enemies of all levels BY TYPE. | VideoGame,Level,Enemy |

**REPORT THE MOST REPEATED TREASURE AT ALL LEVELS**

| **Method** | **Operation** | **Class** |
| --- | --- | --- |
| **executeOption()** | Request for information. | Main |
| **mostRepeatedTreasure()** | It is the method in charge of displaying the most repeated treasure at all levels. | VideoGame,Level,Treasure |
| **getTreasures()** | He is in charge of obtaining all the treasures to validate the information. | Level, Treasures |
| **allTreasures()** | It is in charge of obtaining all the treasures to compare with the rest of the treasures. | Level, Treasures |

**REPORT THE HIGHEST-SCORING ENEMY AND FIND IT**

| **Method** | **Operation** | **Class** |
| --- | --- | --- |
| **executeOption()** | Request for information. | Main |
| **mostEnemyScore()** | It is the method in charge of showing the enemy that awards more points and where it is located. | VideoGame,Level,Enemy |
| **getAllLevels()** | It is responsible for obtaining all the levels to make a partial tour. | VideoGame, Level |
| **getEnemies()** | It is responsible for obtaining registered enemies. | Level, Enemy |
| **allEnemies()** | Obtains all enemies and compares them to validate information. | Level, Enemy |

**REPORT THE NUMBER OF CONSONANTS IN ENEMY NAMES**

| **Method** | **Operation** | **Class** |
| --- | --- | --- |
| **executeOption()** | Request for information. | Main |
| **enemyNameConsonants()** | It is the method in charge of displaying the consonants in the names of registered enemies. | VideoGame,Level,Enemy |
| **getEnemies()** | It is responsible for obtaining all registered enemies. | Level, Enemy |
| **getNames()** | It is responsible for obtaining all the names of the enemies. | Level, Enemy |
| **allEnemies()** | Validates enemy data. | Level, Enemy |

**REPORT TOP 5 BEST PLAYERS**

| **Method** | **Operation** | **Class** |
| --- | --- | --- |
| **executeOption()** | Request for information. | Main |
| **topFivePlayers()** | It is the method in charge of showing the best 5 players according to their score. | VideoGame,Level,Player |
| **getPlayers()** | Gets all registered players. | VideoGame, Player |
| **getScores()** | Gets the scores of all players. | VideoGame, Player |
| **allPlayers()** | It makes the confirmation of the data to draw the top 5. | VideoGame, Player |