**TABLA DE ESPECIFICACIÓN DEL PROBLEMA DE INGENIERÍA DE SOFTWARE, identificando los siguientes elementos**

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| CLIENTE | Empresa de video juegos |
| USUARIO | Jugadores/ |
| REQUERIMIENTOS FUNCIONALES | R1: The system should allow to register players with their nickname, name, initial score, number of lives starting at 5.  R2: The system must allow to establish the level in which the player is based on his score and the level he needs to pass to the next level.  R3: The system must allow to register the different levels of the game that are characterized by the number that identifies them, the points to pass to the next level, the monsters and treasures must be registered and determine the complexity from these (high, medium or low).  R4: It must be allowed to register the treasures that are characterized by the name, a url that represents us, the score that gives, position in which it is in x, and randomly generated.  R5: It must be possible to register enemies with the name, type (ogre, abstracti), the score that subtracts in case it beats the player, the score that adds if it is defeated, the position in which it is with respect to the x, y axes.  R6: The system must implement the generation of random location for enemies and treasures according to the screen resolution chosen by the player.  R7: The system must allow to increase the level of a player.  R8: The system must inform about the enemies and treasures for a level given by the player.  R9: The system must allow to know the amount of a treasure for all levels.  R10: The system must allow to know the total amount of enemies of a type for all levels.  R11: The system must allow to know the most repeated treasure in all levels.  R12: The system must allow to know which is the enemy that gives the highest score and in which level it is located.  R13: The system must allow to determine the number of consonants in the names of the enemies in the game.  R14: The system must allow to inform the top 5 players according to the score.  R15: The system shall allow to choose the screen resolution. |
| CONTEXTO DEL PROBLEMA |  |
| REQUERIMIENTOS NO FUNCIONALES |  |

**Tabla de análisis de requerimientos funcionales (Nota: Una tabla por cada requerimiento funcional)**

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| Nombre o identificador | R1: register player | | |
| Resumen | the system shall allow to register players with the following parameters: name, nickname, initial score starting at 10, number of lives starting at 5, current level and the level required to pass to the next level. | | |
| Entradas | Nombre entrada | Tipo de dato | Condición de selección o repetición |
| name | String | the name must only correspond to letters with a minimum of 3 characters and cannot be numbers or symbols. |
| nickname | String | player's nickname cannot be repeated by other players |
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| Actividades generales necesarias para obtener los resultados | the system must verify that the data entered meet the required conditions, regarding the name and the unique nickname to identify each player. | | |
| Resultado o postcondición | successful player registration | | |
| Salidas | Nombre entrada | Tipo de dato | Condición de selección o repetición |
| Message | String | the nickname does not correspond to a nickname that has already been used by another player, the player's name does not contain symbols or numbers |
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| Nombre o identificador | R2: register level | | |
| Resumen | the system must allow to register the number that identifies the level, the points required to pass to the next level, register the treasures found in each level, the enemies to be defeated and define the difficulty of the level. | | |
| Entradas | Nombre entrada | Tipo de dato | Condición de selección o repetición |
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| Actividades generales necesarias para obtener los resultados | the system has to compare the points awarded by the treasures with the points awarded by the enemies to determine the difficulty of the level. if the points awarded by the chests are higher than those of the enemies the level is of low difficulty, if the points are equal the level is of medium difficulty and if the points of the treasures are lower than those of the enemies it is of high difficulty. | | |
| Resultado o postcondición | level difficulty | | |
| Salidas | Nombre entrada | Tipo de dato | Condición de selección o repetición |
| Message | String |  |
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| Nombre o identificador | R3: Register treasure | | |
| Resumen | to register the treasures you must have the name, a url that shows the representative image, the score that gives the player, the x,y position. | | |
| Entradas | Nombre entrada | Tipo de dato | Condición de selección o repetición |
| name | String | Exclude numbers |
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| Actividades generales necesarias para obtener los resultados | the system should randomly generate the position of each one according to the resolution of the particular screen, it is also possible to have several treasures of one type for the same level in different positions. | | |
| Resultado o postcondición | generate level treasures | | |
| Salidas | Nombre entrada | Tipo de dato | Condición de selección o repetición |
| Message | String |  |
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| Nombre o identificador | R4: register enemies | | |
| Resumen | of the enemies you need to register a name or identifier, the score that subtracts in case of killing the player or the score that adds in case the player kills him. you must have the position in x,y where this is randomly generated. | | |
| Entradas | Nombre entrada | Tipo de dato | Condición de selección o repetición |
| name | String | Exclude numbers |
| name |  |  |
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| Actividades generales necesarias para obtener los resultados | the system shall calculate the position in which the monsters or enemies will appear according to the screen resolution and the score will add or subtract the player when he is defeated or when he kills the player. | | |
| Resultado o postcondición |  | | |
| Salidas | Nombre entrada | Tipo de dato | Condición de selección o repetición |
| Message | String |  |
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| Nombre o identificador | R5: Generate position | | |
| Resumen | the system should allow to randomly generate positions for x and y according to the screen resolution of each player and thus implement for treasures and enemies. | | |
| Entradas | Nombre entrada | Tipo de dato | Condición de selección o repetición |
| resolution | String | the data entered by the user may not contain negatives or decimals. |
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| Actividades generales necesarias para obtener los resultados | the system must have a function that randomly generates a position in y and also generates a random position for x taking into account the resolution margin entered by the person or player in question. | | |
| Resultado o postcondición | x and y position | | |
| Salidas | Nombre entrada | Tipo de dato | Condición de selección o repetición |
| positionX | Int | the data entered by the user is valid to be able to generate the position within the screen margin respectively |
| positionY | Int | the data entered by the user is valid to be able to generate the position within the screen margin respectively |
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| Nombre o identificador | R6: incrase level | | |
| Resumen | the system must allow the player to increase the level and in case the action cannot be performed, it must inform how much is required to do so. | | |
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| Actividades generales necesarias para obtener los resultados |  | | |
| Resultado o postcondición | message level increase | | |
| Salidas | Nombre entrada | Tipo de dato | Condición de selección o repetición |
| Message | String | that the number of points is the right amount to be able to raise the level, otherwise the message will inform of the difference needed to perform the action. |
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| Nombre o identificador | R8: Inform treasure and enemyes | | |
| Resumen |  | | |
| Entradas | Nombre entrada | Tipo de dato | Condición de selección o repetición |
| level | Int | No decimals or negative numbers |
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| Actividades generales necesarias para obtener los resultados | based on the level entered by the player, the system will count the number of enemies encountered and the number of treasures to display on the screen. | | |
| Resultado o postcondición | message with the number of enemies and treasures for the level entered by the user | | |
| Salidas | Nombre entrada | Tipo de dato | Condición de selección o repetición |
| message | String | the data entered by the user are valid to calculate the information (keep in mind that there are only 10 levels), the level has treasures and enemies. |
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| Nombre o identificador | R9: total treasure | | |
| Resumen | the system must allow to know the amount of treasures of one type for all the levels of the game and show it on the screen | | |
| Entradas | Nombre entrada | Tipo de dato | Condición de selección o repetición |
| Treasure | String | No number or decimals |
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| Actividades generales necesarias para obtener los resultados | the system must go through each level counting the treasures found in each one until reaching 10 and show on screen how much was the total. | | |
| Resultado o postcondición | Message in screen with the total of treasure | | |
| Salidas | Nombre entrada | Tipo de dato | Condición de selección o repetición |
| message | String | the user typed the name of treasure which is valid |
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| Nombre o identificador | R10: total enemy | | |
| Resumen | the system must allow to know the amount of enemy of one type for all the levels of the game and show it on the screen | | |
| Entradas | Nombre entrada | Tipo de dato | Condición de selección o repetición |
| Enemy | String | No number or decimals and any the type of valid enemys in the game |
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| Actividades generales necesarias para obtener los resultados | the system must go through each level counting the treasures found in each one until reaching 10 and show on screen how much was the total. | | |
| Resultado o postcondición | Message in screen with the total of treasure | | |
| Salidas | Nombre entrada | Tipo de dato | Condición de selección o repetición |
| message | String | the user typed the name of enemy which is valid |
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| Nombre o identificador | R11: repeated treasure | | |
| Resumen | the system shall be able to inform which is the most repeated treasure at all levels. | | |
| Entradas | Nombre entrada | Tipo de dato | Condición de selección o repetición |
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| Actividades generales necesarias para obtener los resultados | treasures should be counted in the levels and at the end report which has the highest count of all. | | |
| Resultado o postcondición | Message in screen with the total of treasure | | |
| Salidas | Nombre entrada | Tipo de dato | Condición de selección o repetición |
| message | String | treasures of different types are present in the levels to be counted |
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| Nombre o identificador | R12: enemy with more reward | | |
| Resumen | the system should allow to calculate which is the enemy with the highest reward and the level at which it is located. | | |
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| Actividades generales necesarias para obtener los resultados | the system should go through level by level checking which is the enemy with the highest level at the moment and at the end it should be stored the information of which one it is with its reward and the level in which it is. | | |
| Resultado o postcondición | Message with the information of the enemy and the level | | |
| Salidas | Nombre entrada | Tipo de dato | Condición de selección o repetición |
| Message | String | the existence of enemies in the levels in order to be able to determine the information |
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| Nombre o identificador | R13: consonats of the names of the enemys | | |
| Resumen | the system shall allow to determine the number of consonants found in the name of enemies in the game | | |
| Entradas | Nombre entrada | Tipo de dato | Condición de selección o repetición |
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| Actividades generales necesarias para obtener los resultados | you must go through the characters of the names of each one and determine the consonants to add them with a counter. | | |
| Resultado o postcondición | Message with the consonants of the name of the enemys | | |
| Salidas | Nombre entrada | Tipo de dato | Condición de selección o repetición |
| Message | String | The existence of the enemies in the game |
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| Nombre o identificador | R14: Top players | | |
| Resumen | the system should display the top 5 players with scores | | |
| Entradas | Nombre entrada | Tipo de dato | Condición de selección o repetición |
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| Actividades generales necesarias para obtener los resultados | the system must calculate the scores of the different players registered in the game and determine the 5 highest scores of these players to be displayed on the screen. | | |
| Resultado o postcondición | The message in the screen with the top of players | | |
| Salidas | Nombre entrada | Tipo de dato | Condición de selección o repetición |
| Message | String | The existence of the enemies in the game |
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| Nombre o identificador | R15: Type of the screen | | |
| Resumen | the system should allow to choose the screen resolution for each user | | |
| Entradas | Nombre entrada | Tipo de dato | Condición de selección o repetición |
| typeScreenOption | Int | No double or negative numbers |
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| Actividades generales necesarias para obtener los resultados | the system must allow the user to choose the type of resolution that suits his or her screen | | |
| Resultado o postcondición | player screen resolution for position generation | | |
| Salidas | Nombre entrada | Tipo de dato | Condición de selección o repetición |
| Message | String | Valid entries |
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| **Requerimiento Funcional** | **Nombre de la Clase** | **Nombre del método** |
| ReqFunc008  Calcular cantidad de presentaciones de tipo callejero. |  |  |
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| REQUERIMIENTO FUNCIONAL 9  Mostrar el nombre y el país de las presentaciones. |  |  |
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