|  |  |
| --- | --- |
| NOMBRE O IDENTIFICADOR | R1: listAvailableMinirooms |
| RESUMEN | The system must be able to generate a list of available mini-rooms, showing whether or not they are in a window, the rental value, the broker and the column in which they are located. |
| ENTRADAS | |  |  |  | | --- | --- | --- | | **Nombre de entrada** | **Tipo de dato** | **Condición de selección o repetición** | |  |  |  | |
| ACTIVIDADES GENERALES NECESARIAS PARA OBTENER LOS RESULTADOS | 1. The user selects the option list available mini-rooms. 2. The system searches for available mini-rooms. 3. Generate the specifications of the mini-room in a String . 4. Concatenates all the Strings generated by all the available mini-rooms. 5. Print the message. |
| RESULTADO O POSTCONDICIÓN | A message in the form of a list with all the specifications of the available mini-rooms |
| SALIDAS | |  |  |  | | --- | --- | --- | | **Nombre Salida** | **Tipo de datos** | **Condición de selección o repetición** | | message | String |  | |

**Fuctional requirements analysis**

|  |  |
| --- | --- |
| NOMBRE O IDENTIFICADOR | R2: rentMiniroom |
| RESUMEN | The system must allow the leasing of an available mini-room by a company. If the miniroom will be used for a research project the company will be ICESI. |
| ENTRADAS | |  |  |  | | --- | --- | --- | | **Nombre de entrada** | **Tipo de dato** | **Condición de selección o repetición** | | rentalDate | String |  | | serversAmount | int |  | | projectId | String | If used for a research project at the ICESI University. | | tenantName | String | If used for a research project, the default name will be ICESI. | | option | int |  | |
| ACTIVIDADES GENERALES NECESARIAS PARA OBTENER LOS RESULTADOS | 1. The user selects the option rent mini-room. 2. The user selects whether it will be rented to a company or to an ICESI research project. 3. The user enters the required entries. 4. Generate a message according to the success of the process . |
| RESULTADO O POSTCONDICIÓN | message of successful or unsuccessful lease. |
| SALIDAS | |  |  |  | | --- | --- | --- | | **Nombre Salida** | **Tipo de datos** | **Condición de selección o repetición** | | message | String |  | |

|  |  |
| --- | --- |
| NOMBRE O IDENTIFICADOR | R3: cancelRent |
| RESUMEN | The system must allow to cancel the lease of a mini-room or all the leases of a company. The servers stored in the rack will be deleted and a message will be displayed with their information. . |
| ENTRADAS | |  |  |  | | --- | --- | --- | | **Nombre de entrada** | **Tipo de dato** | **Condición de selección o repetición** | | **column** | **int** | **If user’s wish to cancel the rental of only one mini-room** | | **row** | **int** | **If user’s wish to cancel the rental of only one mini-room** | | **option** | **int** |  | | **tenantNit** | **String** | **If user’s want to cancel the rental of all the mini-rooms of a company** | |
| ACTIVIDADES GENERALES NECESARIAS PARA OBTENER LOS RESULTADOS | 1. The user selects the option cancel rent. 2. The user decides whether to cancel one mini-room or all mini-rooms of a company. 3. User enters entries as appropriate. 4. Change the mini-rooms to available as appropriate 5. Generate a message with the processing capacity of each server in the rack(s) (indicating total disk capacity, total RAM memory,). 6. Remove servers from the rack or racks. 7. Show the message. |
| RESULTADO O POSTCONDICIÓN | A list message will be displayed on the screen with the processing capacity of each server in the rack of each room to be cancelled. |
| SALIDAS | |  |  |  | | --- | --- | --- | | **Nombre Salida** | **Tipo de datos** | **Condición de selección o repetición** | | message | String |  | |  |  |  | |  |  |  | |

|  |  |
| --- | --- |
| NOMBRE O IDENTIFICADOR | R4: showDataCenterMap |
| RESUMEN | The system must be able to display a map of the data center showing which mini-rooms are on and which are off. |
| ENTRADAS | |  |  |  | | --- | --- | --- | | **Nombre de entrada** | **Tipo de dato** | **Condición de selección o repetición** | |  |  |  | |
| ACTIVIDADES GENERALES NECESARIAS PARA OBTENER LOS RESULTADOS | 1. The user selects the option show data center map. 2. Available and unavailable mini-rooms are searched for. 3. Generate a message in the form of a map showing available mini-rooms as off and occupied mini-rooms as on. 4. Show the message. |
| RESULTADO O POSTCONDICIÓN | A map-like message will be displayed on the screen showing the columns and rows with each cell marked off or on as appropriate. |
| SALIDAS | |  |  |  | | --- | --- | --- | | **Nombre Salida** | **Tipo de datos** | **Condición de selección o repetición** | | map | String |  | |

|  |  |
| --- | --- |
| NOMBRE O IDENTIFICADOR | R5: simulateMiniroomsLighting |
| RESUMEN | The system must be able to simulate the lighting of all mini-rooms regardless of their status. |
| ENTRADAS | |  |  |  | | --- | --- | --- | | **Nombre de entrada** | **Tipo de dato** | **Condición de selección o repetición** | |  |  |  | |
| ACTIVIDADES GENERALES NECESARIAS PARA OBTENER LOS RESULTADOS | 1. The user selects the option simulate minirooms lighting. 2. the system will change the status of the lights of all mini-rooms to on (or the corresponding one in case of a boolean). 3. The option will change to show "Stop simulating". 4. When selected again, the lights will return to their original state (when the simulate option was not activated). |
| RESULTADO O POSTCONDICIÓN | Map-like message with all mini-rooms on  A map-like message will be displayed on the screen showing the columns and rows with each cell marked off or on as appropriate. |
| SALIDAS | |  |  |  | | --- | --- | --- | | **Nombre Salida** | **Tipo de datos** | **Condición de selección o repetición** | | map | String |  | |

|  |  |
| --- | --- |
| NOMBRE O IDENTIFICADOR | R6: simulateMiniroomsShutdown. |
| RESUMEN | The system must allow that from a letter that serves as an identifier, the mini-rooms of certain areas are displayed.  Letter L: turns off the first mini-quarts of all the corridors, together with the mini-quarts of the first corridor.  Letter Z: turns off the mini-quarts of the first and last corridor, together with the mini-quarts of the reverse diagonal.  Letter H: turns off the mini-quarries located in the odd numbered corridors.  Letter O: turns off the mini-quarts located in the windows.  Letter M: prompts the user for a column N and turns off all the mini-quarts in column N  Letter P: turns off the mini-quarts of a corridor (given the corridor). Remember that for the user, the corridors start at one). |
| ENTRADAS | |  |  |  | | --- | --- | --- | | **Nombre de entrada** | **Tipo de dato** | **Condición de selección o repetición** | | **identifyingLetter** | **char** |  | |
| ACTIVIDADES GENERALES NECESARIAS PARA OBTENER LOS RESULTADOS | 1. The user selects the option simulate minirooms shutdown. 2. The system will ask for a letter that identifies the mini-rooms to be turned off. 3. The lights of the selected mini-rooms (or identified with the typed letter) will turn off. 4. The lights of the off mini-rooms will turn on again. |
| RESULTADO O POSTCONDICIÓN | Map with selected mini-room lights off |
| SALIDAS | |  |  |  | | --- | --- | --- | | **Nombre Salida** | **Tipo de datos** | **Condición de selección o repetición** | | map | String |  | |