#### Grupo 2 - Turno 3ª feira - 9:30

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| **Message Format Specification.**  **All messages are terminated with a newline character: ‘\n’**  **All parameters are separated with spaces**  **Optional parameters are shown with brackets, e.g. [type\_of\_parameter]**  **Mandatory parameters are shown between, e.g. <type\_of\_parameter>** | |
| **Geral** | |
| Server -> Client | OK: <explanation text>\n |
| Server -> Client | ERROR: <explanation text>\n |
| **Responsavel de local** | |
| **Local** | |
| Client -> Server | REGISTERSITE <nome> <lotação> <tempoPermanencia> <saldo>\n |
| Client -> Server | SALDO\n |
| Client -> Server | UNREGISTERSITE <identificador de local>\n |
| **Atividade** | |
| Client -> Server | CREATEACTIVITY <local> <tipo> <destinatário> <lotação> <duração> <pontuação> <custo>\n |
| Client -> Server | MODIFYACTIVITY <identificador> <campo a modificar> <novo valor de campo>\n <campo a modificar> só pode ser lotação/pontuação/custo |
| Client -> Server | REMOVEACTIVITY <identificador de atividade>\n |
| **Cidadão** | |
| **Utente** | |
| Client -> Server | REGISTERUSER <local> <nome> <profissão> <pontuação> <saldo> <tempo de permanência>\n |
| Client -> Server | MODIFYUSER <identificador de utente> <campo a modificar> <novo valor de campo>\n  <campo a modificar> só pode ser profissão ou tempo de permanência |
| Client -> Server | REMOVEUSER <identificador de utente>\n |
| **Atividade** | |
| Client -> Server | CHECKACTIVITY \n |
| Client -> Server | ASKACTIVITY <identificador de atividade>\n  <identificador de atividade> pode ser 0 se quiser uma atividade aleatória |
| Client -> Server | COMPLAINT <local> <tipo de reclamação> <descrição>\n |
| **Gestor municipal** | |
| **Local** | |
| Client -> Server | GETLOCAL <id\_list>\n |
| Client -> Server | GETCOMPLAINT <id\_local>\n |
| **Services** | |
| Client -> Server | CREATESERVICE <name> <id\_local> <type\_service> <price>\n |
| Client -> Server | CHARGESERVICE <id\_service>\n |
| Client -> Server | REMOVESERVICE <id\_service>\n |

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| **OK Messages** |
| <identificador de local> Site registered successfully |
| 1 Site has been removed successfully |
| The current balance is: <saldo>\n |
| <identificador de atividade> Activity created successfully |
| 1 Activity modified successfully |
| 1 Activity removed successfully |
| <identificador de utente> User registered successfully |
| 1 User modified successfully |
| 1 User removed successfully |
| <identificador de atividade> <local> <tipo de atividade> <estado> <disponibilidade> <custo> |
| <identificador de atividade> <tempo> |
| <identificador de reclamação> Complaint registered successfully |
| <local\_details\_list>\nLocals returned successfully.\n |
| <registered\_complaints> <registered\_users>\nLocal registered complaints returned successfully.\n |
| <id\_service> Service created successfully.\n |
| 1 Charge was completed successfully.\n |
| 1 Service removed successfully.\n |

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| **ERROR Messages** |
| Invalid command |
| 0 Site not registered. Parameters incorrect or missing |
| 0 Site not registered. Name already in use |
| 0 Site not removed. No site found with that identifier |
| 0 Activity not created. Parameters incorrect or missing |
| 0 Activity not created. Activity type already in use |
| 0 Activity not created. Maximum number of activities reached |
| 0 Activity not modified. No activity found with that identifier |
| 0 Activity not modified. Parameters incorrect or missing |
| 0 Activity not modified. Activity is still running |
| 0 Activity not removed. No activity found with that identifier |
| 0 Activity not removed. Activity is still running |
| 0 User not registered. Information missing |
| 0 User not registered. Name already in use |
| 0 User not registered. Maximum capacity reached |
| 0 User not modified. User does not exist |
| 0 User not modified. Information missing |
| 0 User not modified. User is participating in an activity |
| 0 User not removed. No user found with that identifier |
| 0 User not removed. User is participating in an activity |
| 0 Not possible to participate in the activity. Inadequate profile |
| 0 Not possible to participate in the activity. Maximum capacity reached |
| 0 Not possible to participate in the activity. Site almost closing |
| 0 No time limit defined |
| 0 Complaint not registered. Information missing |
| 0 Complaint not registered. Site does not exist |
| 0 Service not registered. Missing information.\n |
| 0 Service not registered. Service is already registered.\n |
| 0 Service not registered. Local provided does not exist.\n |
| 0 Charge did not go through. Local provided does not exist.\n |
| 0 Charge did not go through. Amount to charge is not met.\n |
| 0 Service could not be removed. Service provided does not exist.\n |

**Protocolo a usar**

TCP:   
 Sabe-se quando um cliente se desliga portanto não é necessario estar sempre a dar ping para ver se ainda está conectado

Os sockets de TCP são especificos ao cliente portanto sabe-se de qual cliente vem cada mensagem e não é preciso filtrar as mensagems que o servidor recebe

Não ha risco de perda de pacotes

**Formato de armazenação em ficheiros**

**Atividades:**  
 <identificador>|<local>|<tipo>|<destinatário>|<lotação>|<duração>|<pontuação>|<custo>  
 exemplo: 1|area de desporto|correr|todos|0|0|5|0

**Locais:**  
 <identificador>|<nome>|<lotação>|<tempoPermanencia>|<saldo>|<ranking>  
 exemplo: 3|lago|20|0|500|1

**Utentes:**

<identificador>|<local>|<nome>|<profissão>|<pontuação>|<saldo>|<tempo de permanência>

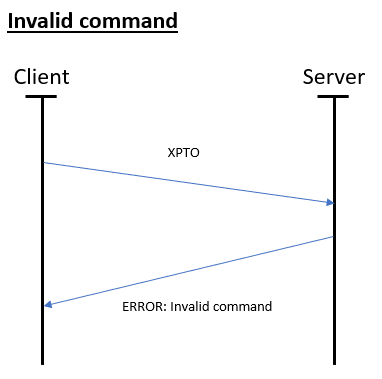
Exemplo: 1|area de desporto|afonso|estudante|0|10|30

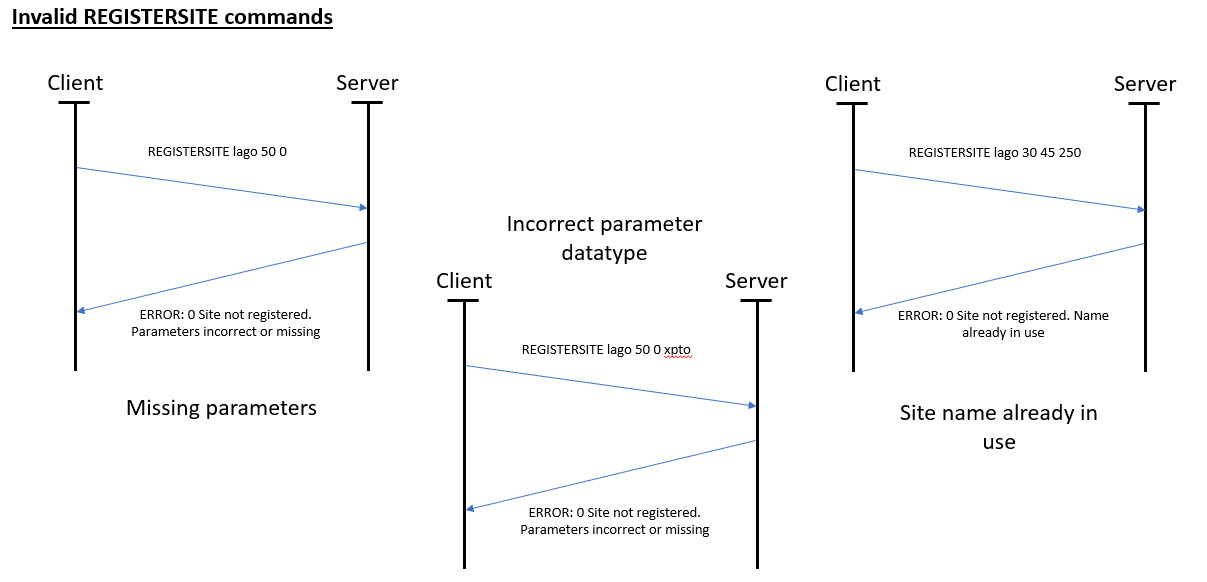
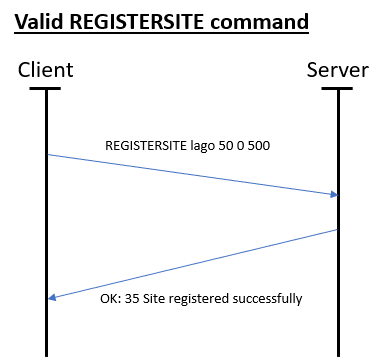
**Services:**

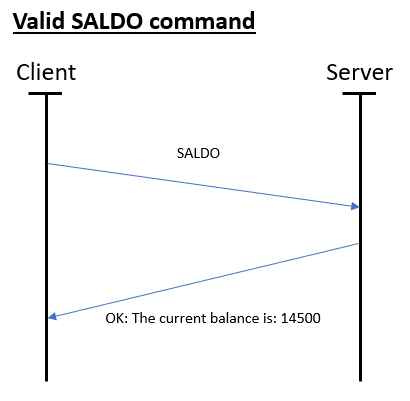
<id\_service>|<name>|<id\_local>|<service\_type > |<price>

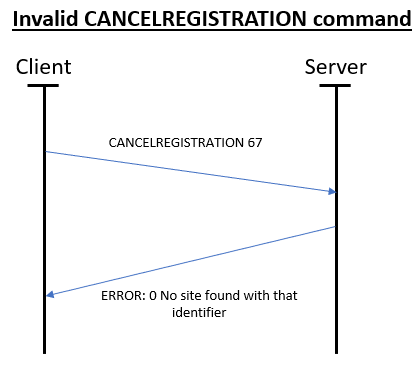
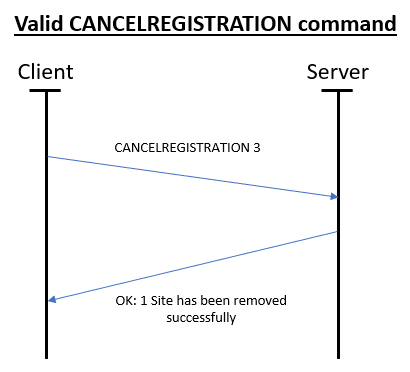
Example: 20|Gym|5|Health|20

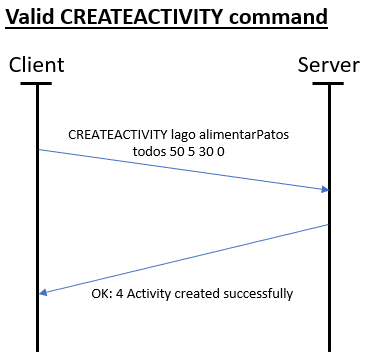
Diagramas temporais

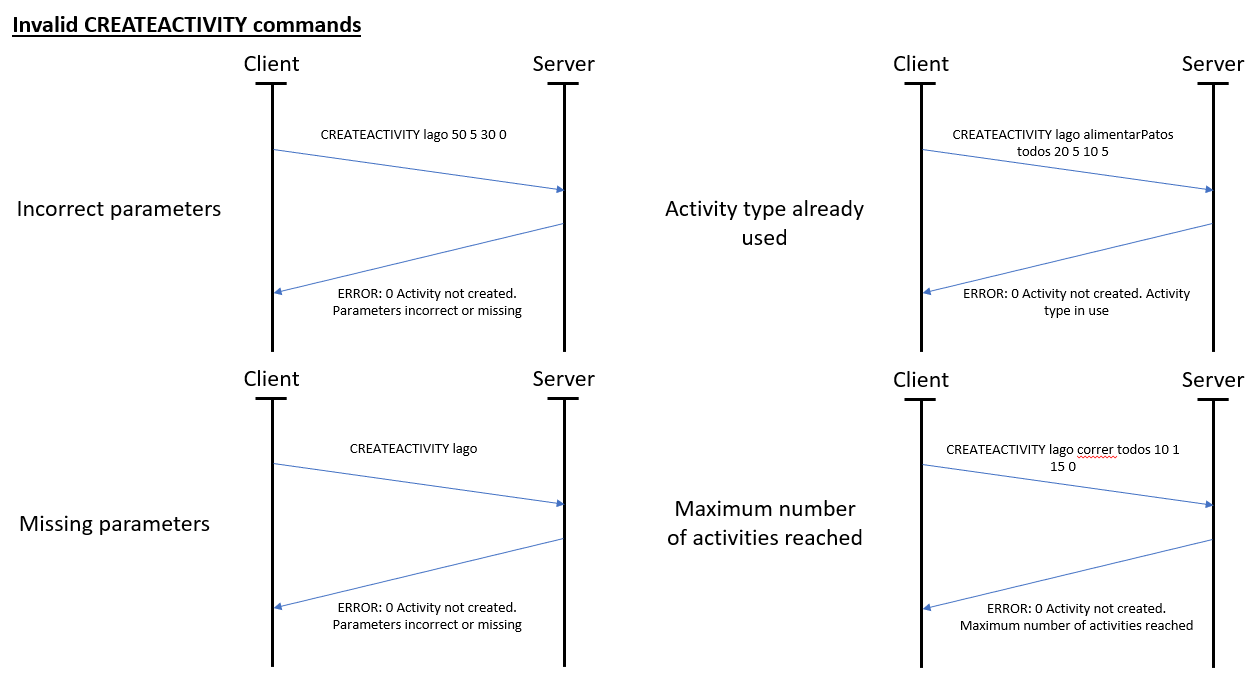


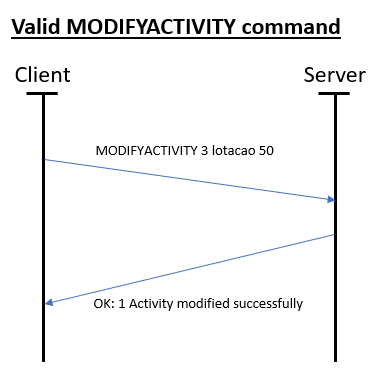


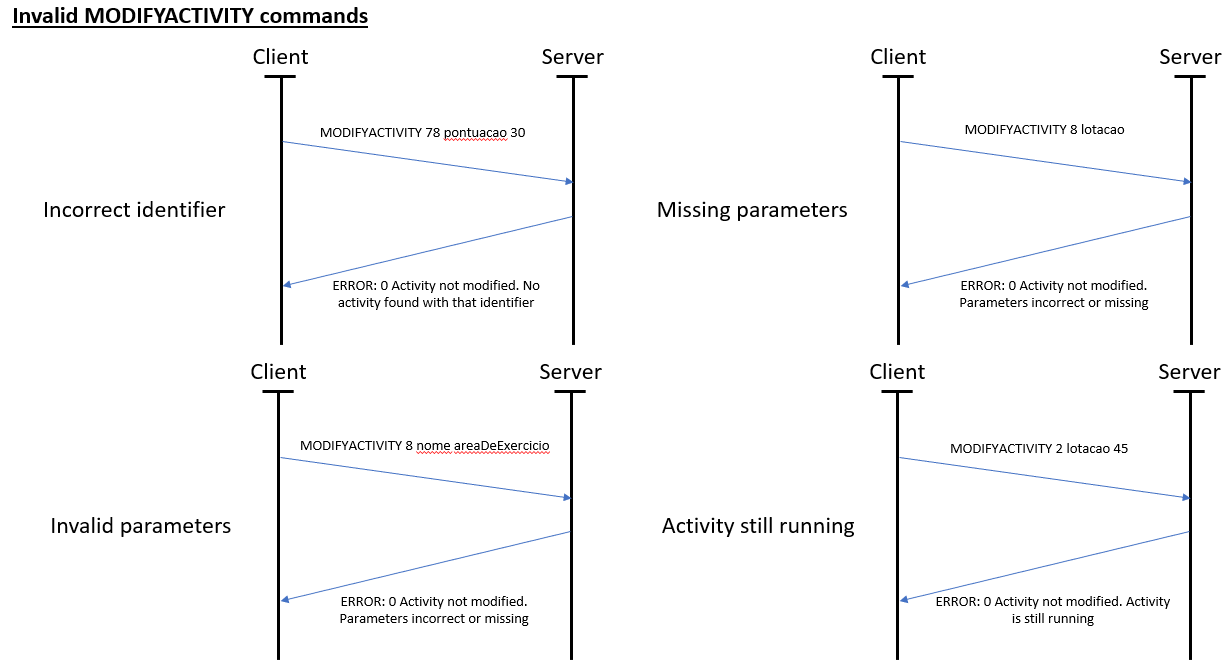


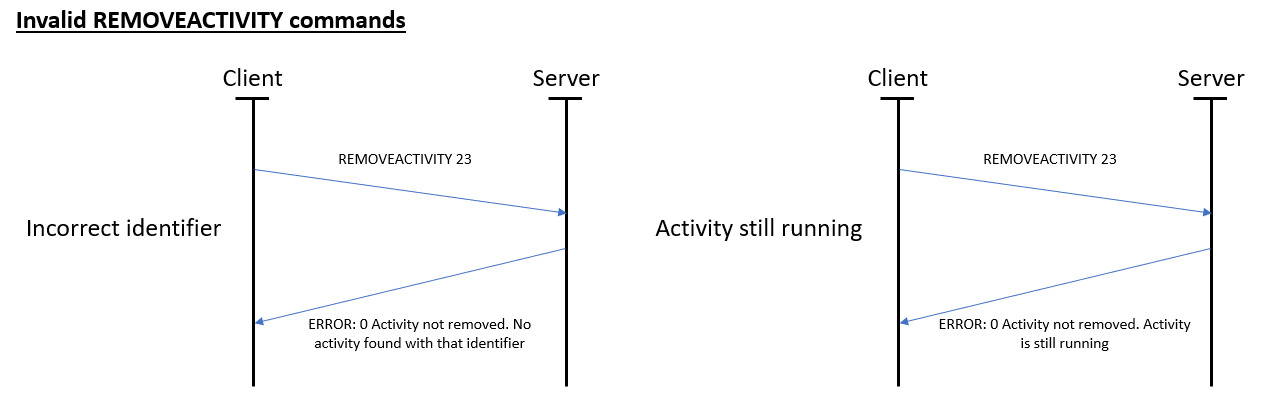
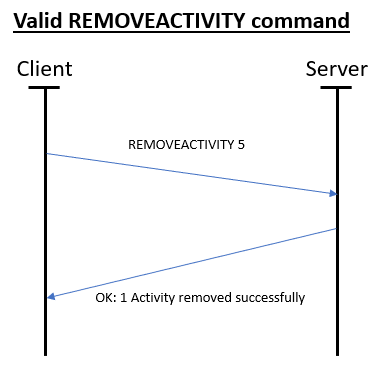




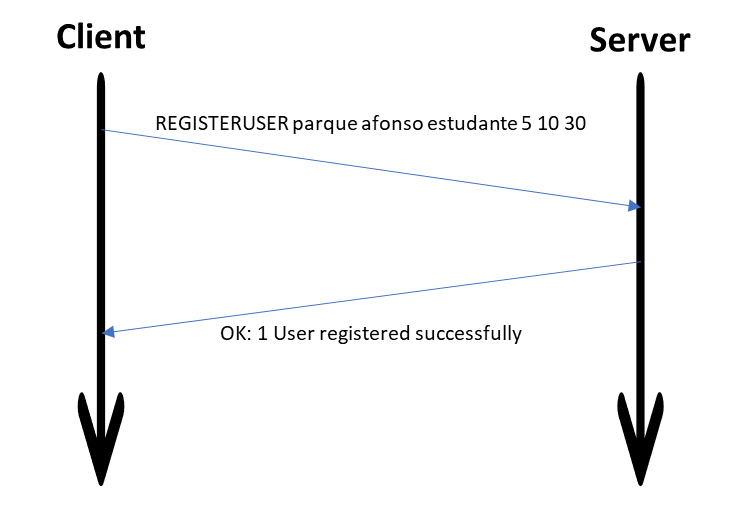




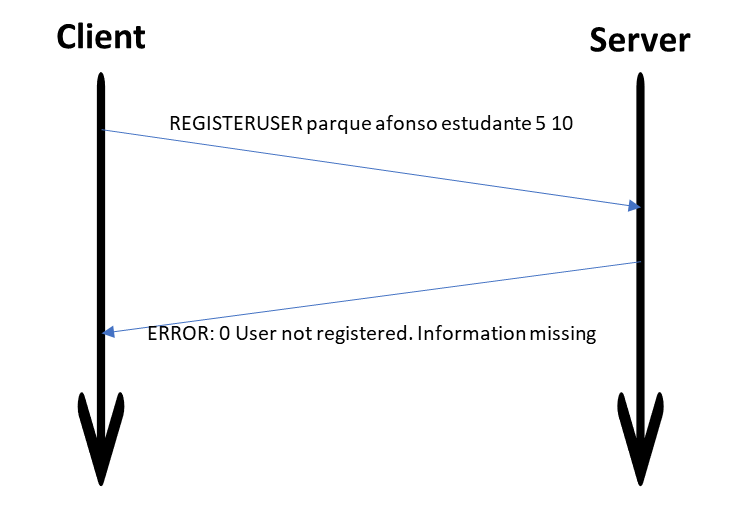
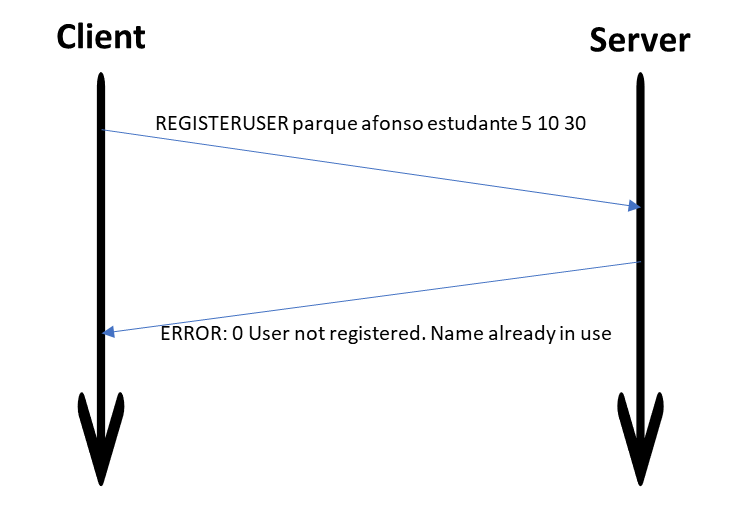


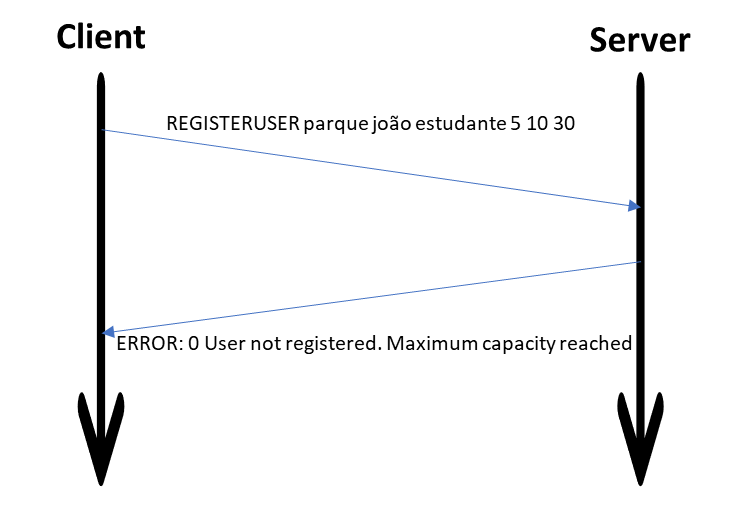


**Valid REGISTERUSER command**

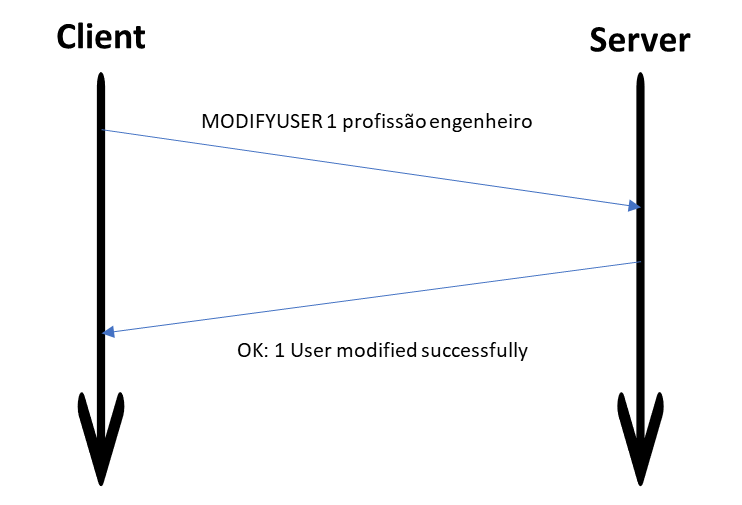


**Invalid REGISTERUSER commands**

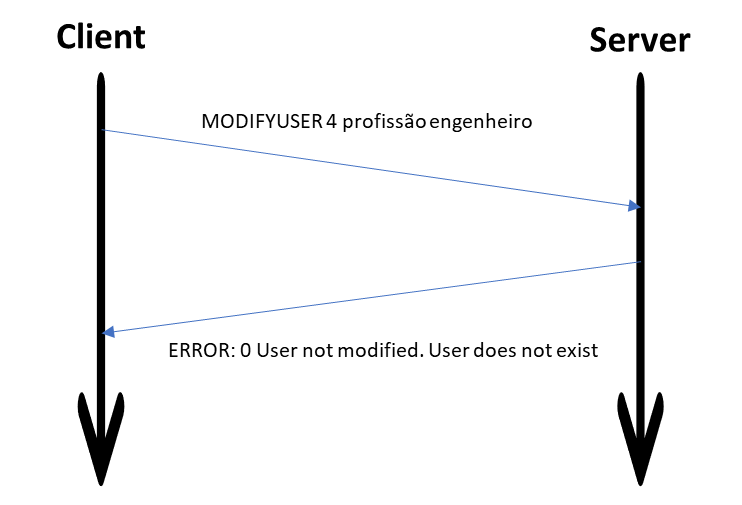
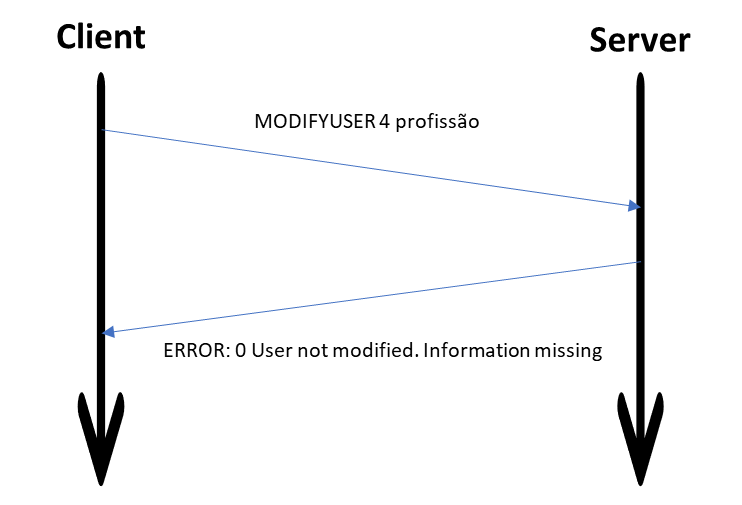
 

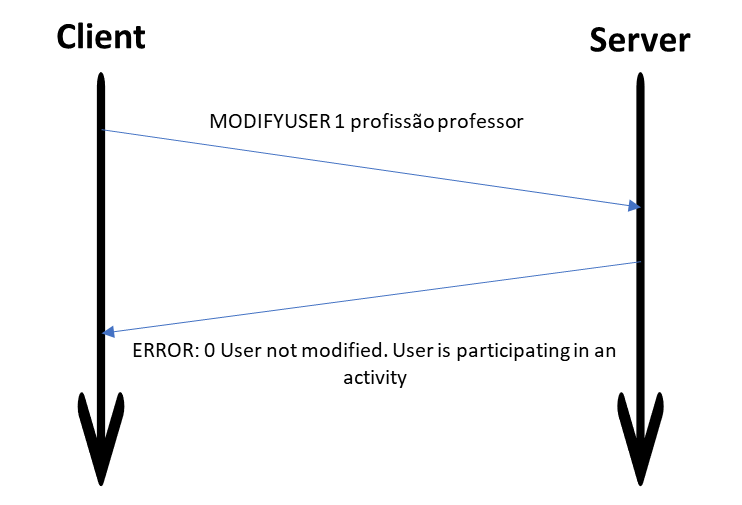


**Valid MODIFYUSER command**

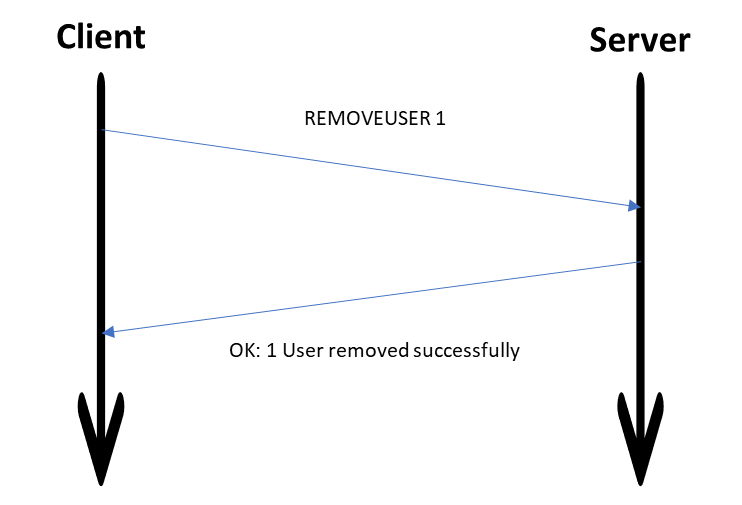


**Invalid MODIFYUSER command**

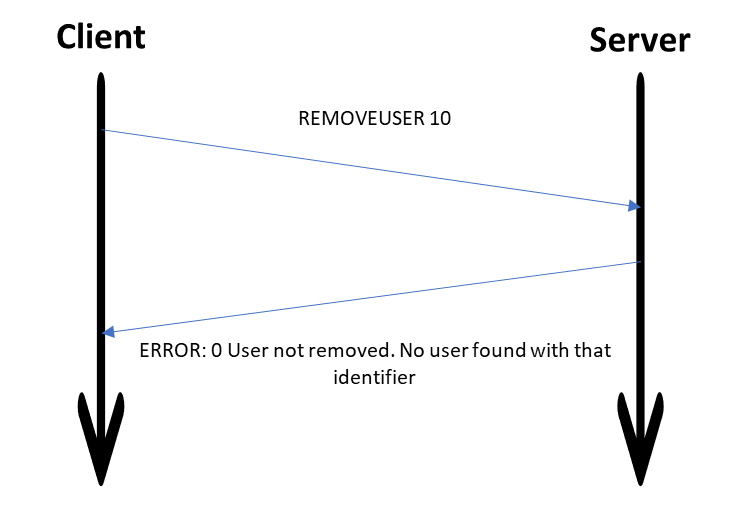
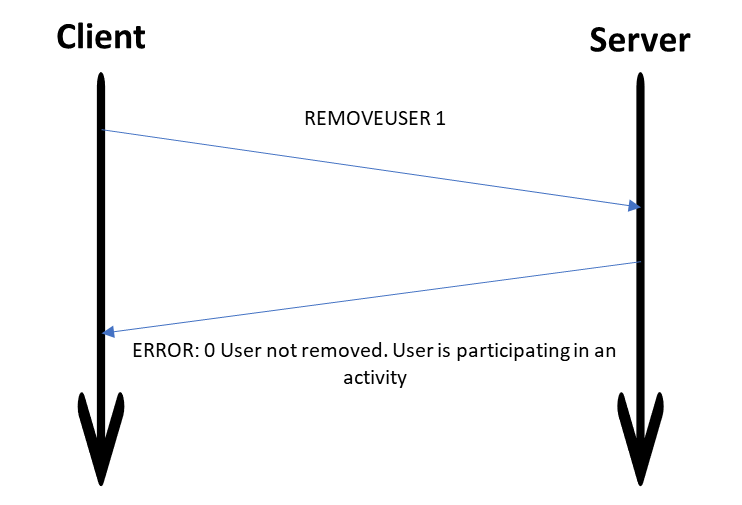
 



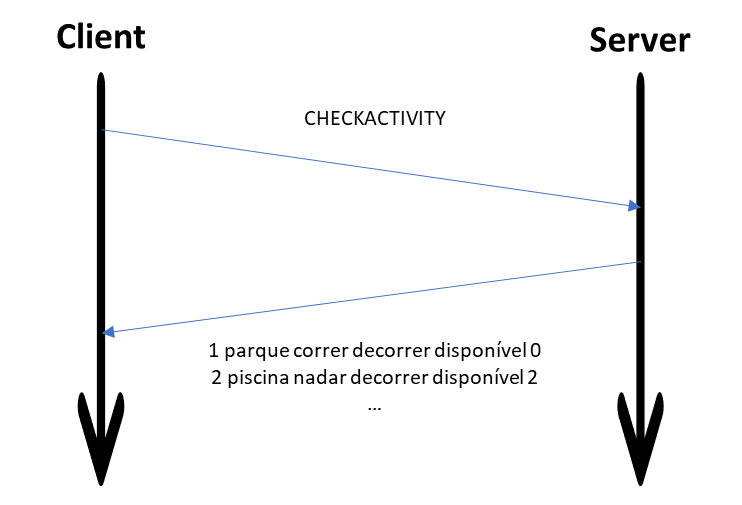
**Valid REMOVEUSER command**



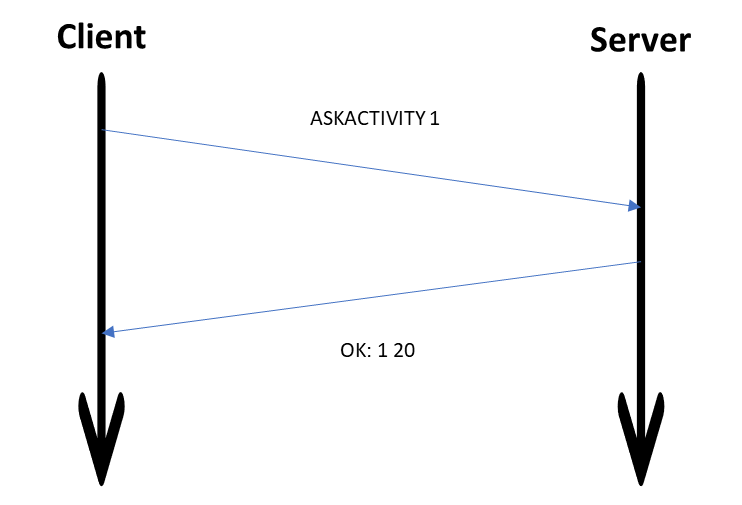
**Invalid REMOVEUSER command**

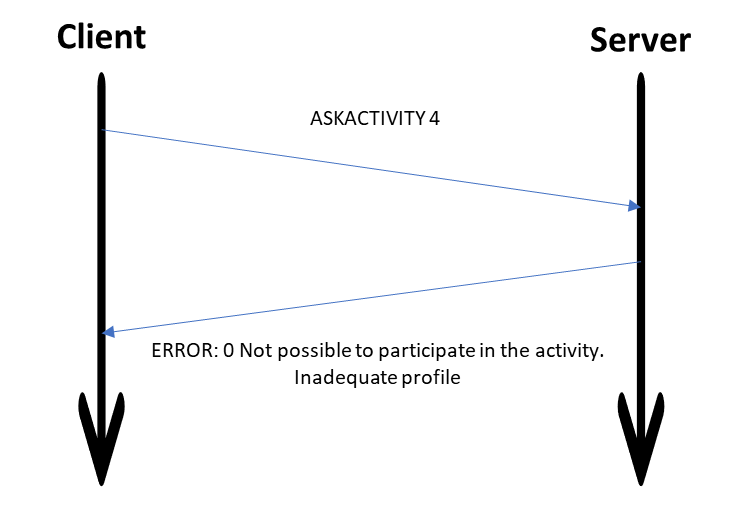
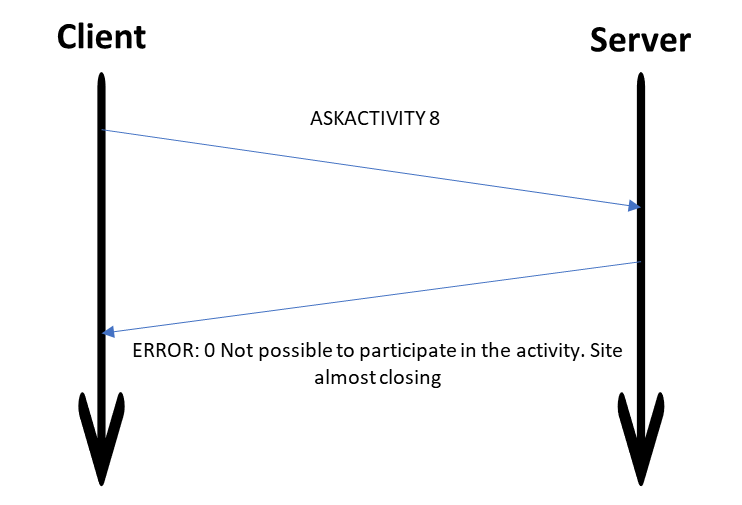
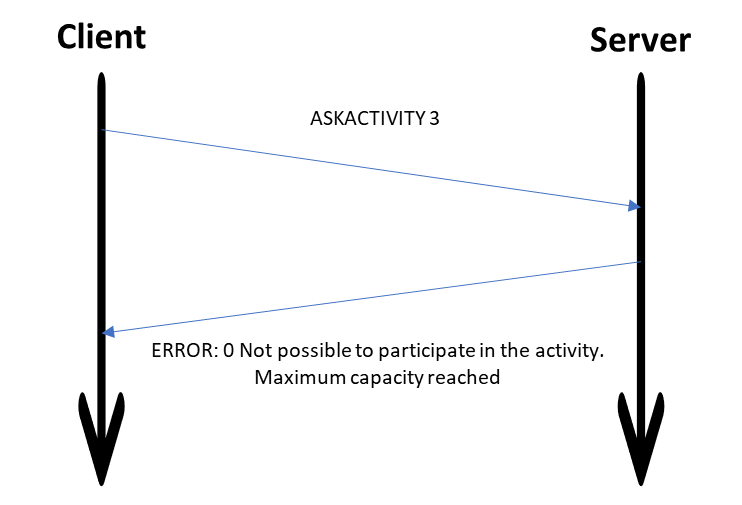
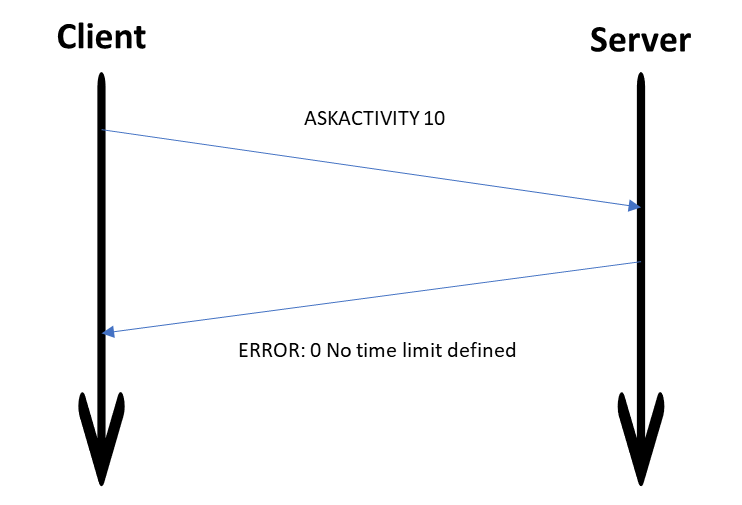
**Valid CHECKACTIVITY command**



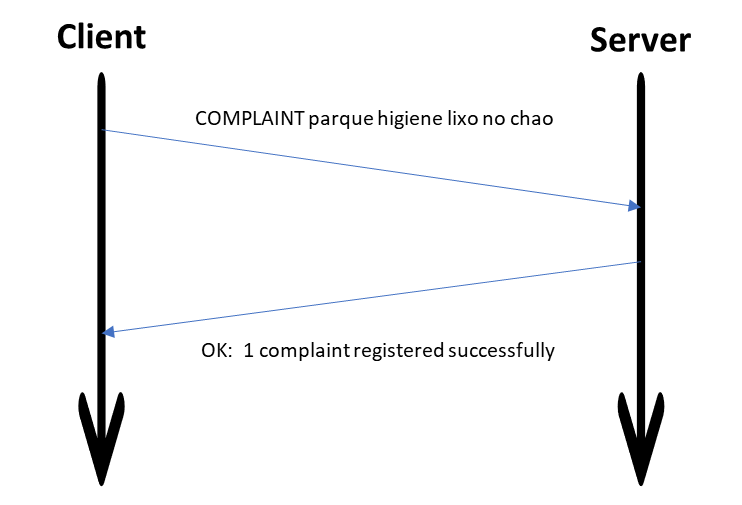
**Valid ASKACTIVITY command**



**Invalid ASKACTIVITY command**

**Valid COMPLAINT command**



**Invalid COMPLAINT command**

