Group 5 Students 81074 81731 Grade 19

Student should fill the **Concluded/Correct** percentage

Minimum functionality enough to pass	**10 Values**	**Concluded/Correct (100 %)**
Implementation of a clipboard that accepts multiple simultaneous local connections: clipboard_connect, clipboard_copy, clipboard_paste	The minimum functionalities that are required are all implemented and they are all working properly according to the specifications.	
Synchronization	**+1 value**	**Concluded/Correct (100 %)**
Definition of the various critical regions and implementation of correct synchronization	The synchronization is done sending the messages to the parent clipboard and then the clipboard that is on the top, the one that is working on single mode, changes its region and send to its children that region. The clipboards that receive a copy request from its parent knows that has to change its region with that content.	
Efficient synchronization	**+1 value**	**Concluded/Correct (100 %)**
Implementation of synchronization on the critical regions guaranteeing that they are the shortest possible	In order to decrease the critical regions, for example, when a certain thread wants to paste the content of a certain region, the critical region is only a memcpy() and after that, the send of the region is done after unlocking the region.	
Clipboard_wait	**+1 value**	**Concluded/Correct (100 %)**
Correct implementation of the clipboard_wait function	The clipboard_wait() function is working properly. Every time a copy is done to a certain region, if there are applications waiting for that same region, then they will receive it.	
Connection to another clipboard	**+1 value**	**Concluded/Correct (100 %)**
Implementation of the -c option, basic replication of the data among the various clipboards Detection of disconnect e correct execution aftwards	When the user uses the -c option, then the synchronization will be done and the clipboard it's ready to accept new connections, even from applications or from remote clipboards. If a clipboard disconnects from its parent, it will be running on single mode.	
Correct replication among clipboards	**+1 value**	**Concluded/Correct (100 %)**
Implementation of a correct synchronization algorithm that guarantees the consistency of the data when two simultaneous copies occur in different clipboards	Once every time a copy is done the clipboards only change its region if they receive the copy request from its parent, the synchronization algorithm guarantees that everyone will have the same regions since the clipboard that has no parent will forward the request with an order, which states that every clipboard will have the same content.	
Errors treatment	**+1 value**	**Concluded/Correct (100 %)**
Verification, correction and report of communication errors Verification, correction and report of execution errors on the clipboards	The return values of all functions are checked in order to handle the possible errors that may occur during the execution of the program.	
Correct Resources management	**+1 value**	**Concluded/Correct (100 %)**
Correct management (destruction) of threads, sockets, memory	Before exit the program, the memory is released, the sockets are closed and the threads are destroyed.	
Code structure	**+1 value**	**Concluded/Correct (100 %)**
Report	**+1 value**	**Concluded/Correct (100 %)**
Discussion	**+1 value**	**Concluded/Correct (___ %)**
Incorrect implementation of the API	**-1..0 values**	**Concluded/Correct (0 %)**

REPORT Group _____ Students _____ _____ Grade _____

Architecture and components	
Communication protocol	
Resources management	
Critical regions	
Synchronization	
Replication	
Error management	
Code Structure	