

Començat el	dissabte, 19 d'abril 2025, 13:05
Estat	Acabat
Completat el	dissabte, 19 d'abril 2025, 13:06
Temps emprat	40 segons

Pregunta 1

Correcte

Puntuat sobre 1,00

CODE REVIEW**Leader-slave group membership service: Erlang file *gms1.erl***

(do not use additional blanks/spaces in your answers)

```
-module(gms1).
-export([start/1, start/2]).

start(Name) ->
    Self = self(),
    spawn_link(fun()-> init(Name, Self) end).

init(Name, Master) ->
    leader(Name, Master, []).

start(Name, Grp) ->
    Self = self(),
    spawn_link(fun()-> init(Name, Grp, Self) end).

init(Name, Grp, Master) ->
    Self = self(),
    Grp ! {join, Self},
    receive
        {view, Leader, Slaves} ->
            Master ! joined,
            slave(Name, Master, Leader, Slaves)
    end.

leader(Name, Master, Slaves) ->
    receive
        {mcast, Msg} ->
            bcast(Name, {msg,Msg} ✓ , Slaves ✓ ),
            Master ! {deliver, Msg}, ✓
            leader(Name, Master, Slaves);
        {join, Peer} ->
            NewSlaves = lists:append(Slaves, [Peer]),
            bcast(Name, {view, self(), NewSlaves} ✓ , NewSlaves ✓ ),
            leader(Name, Master, NewSlaves ✓ );
    stop ->
        ok;
    Error ->
        io:format("leader ~s: strange message ~w~n", [Name, Error])
    end.

bcast(_, Msg, Nodes) ->
    lists:foreach(fun(Node) -> Node ! Msg end, Nodes).

slave(Name, Master, Leader, Slaves) ->
    receive
        {mcast, Msg} ->
            Leader ! {mcast, Msg}, ✓
            slave(Name, Master, Leader, Slaves);
        {join, Peer} ->
            Leader ! {join, Peer}, ✓
            slave(Name, Master, Leader, Slaves);
        {msg, Msg} ->
            Master ! {deliver, Msg}, ✓
            slave(Name, Master, Leader, Slaves);
        {view, Leader, NewSlaves} ->
            slave(Name, Master, Leader, NewSlaves ✓ );
    stop ->
        ok;
    Error ->
        io:format("slave ~s: strange message ~w~n", [Name, Error])
    end.
```