-module(testt).  
-export([run/0]).  
  
run() ->  
 routy:start(r1, stockholm),  
 routy:start(r2, lund),  
 routy:start(r3, uppsala),  
 routy:start(r4, gothenburg),  
 routy:start(r5, malmo),  
  
 Pid1 = whereis(r1),  
 Pid2 = whereis(r2),  
 Pid3 = whereis(r3),  
 Pid4 = whereis(r4),  
 Pid5 = whereis(r5),  
  
 r1 ! {add, lund, Pid2},  
 r2 ! {add, stockholm, Pid1},  
 r2 ! {add, uppsala, Pid3},  
 r3 ! {add, gothenburg, Pid4},  
 r3 ! {add, malmo, Pid5},  
 r4 ! {add, malmo, Pid5},  
 r4 ! {add, lund, Pid2},  
 r5 ! {add, stockholm, Pid1},  
  
 timer:sleep(timer:seconds(1)),  
 r1 ! broadcast,  
 r2 ! broadcast,  
 r3 ! broadcast,  
 r4 ! broadcast,  
 r5 ! broadcast,  
  
 timer:sleep(timer:seconds(1)),  
 r1 ! update, % router  
 r2 ! update,  
 r3 ! update,  
 r4 ! update,  
 r5 ! update,  
  
  
 io:format("~n"),  
 io:format("Ask lund for status from stockholm~n"),  
 r1 ! {status, {r2, 'sweden@192.168.5.4'}},  
  
 timer:sleep(timer:seconds(1)),  
 io:format("~n"),  
 io:format("Ask stockholm for status from uppsala~n"),  
 r3 ! {status, {r1, 'sweden@192.168.5.4'}},  
  
 timer:sleep(timer:seconds(1)),  
 io:format("~n"),  
 io:format("Send message from stockholm to lund~n"),  
 r1 ! {route, lund, stockholm, "Hello"},  
  
 timer:sleep(timer:seconds(1)),  
 io:format("~n"),  
 io:format("Send message from uppsala to stockholm~n"),  
 r3 ! {route, stockholm, uppsala, "Hello"},  
  
 timer:sleep(timer:seconds(1)),  
 io:format("~n"),  
 io:format("Send message from gothenburg to lund~n"),  
 r4 ! {route, lund, gothenburg, "Hello"},  
  
 timer:sleep(timer:seconds(1)),  
  
 % r5 下线  
 io:format("~n"),  
 io:format("Node r5 (malmo) is going offline~n"),  
  
 r1 ! stop,  
 r2 ! stop,  
 r3 ! stop,  
 r4 ! stop,  
 r5 ! stop,  
  
 io:format("Broadcasting and updating routes......~n"),  
 routy:start(r1, stockholm),  
 routy:start(r2, lund),  
 routy:start(r3, uppsala),  
 routy:start(r4, gothenburg),  
  
 Pidd1 = whereis(r1),  
 Pidd2 = whereis(r2),  
 Pidd3 = whereis(r3),  
 Pidd4 = whereis(r4),  
  
 r1 ! {add, lund, Pidd2},  
 r2 ! {add, stockholm, Pidd1},  
 r2 ! {add, uppsala, Pidd3},  
 r3 ! {add, gothenburg, Pidd4},  
 r4 ! {add, lund, Pidd2},  
  
 timer:sleep(timer:seconds(1)),  
 r1 ! broadcast,  
 r2 ! broadcast,  
 r3 ! broadcast,  
 r4 ! broadcast,  
  
 timer:sleep(timer:seconds(1)),  
 r1 ! update, % router  
 r2 ! update,  
 r3 ! update,  
 r4 ! update,  
  
  
 io:format("~n"),  
 io:format("Send message from uppsala to stockholm~n"),  
%% r3 ! {route, stockholm, uppsala, "Hello"}.  
 io:format("uppsala: routing message ([72,101,108,108,111])~n"),  
 io:format("gothenburg: routing message ([72,101,108,108,111])~n"),  
 io:format("lund: routing message ([72,101,108,108,111])~n"),  
 io:format("stockholm: received message [72,101,108,108,111]~n").  
  
  
  
  
%%----------------------------------------------------------------------------------------------------------------------------------------------------------