LAB 3 - TASK 3 (EXTERNAL RESOURCE) (1.0 points possible)

Lab 3 - Task 3

In this task, you will learn how the receiver in the stop and wait protocol passes data to the applicat
Remember that in the stop and wait protocol the receiver may receive duplicated packets, due to
acknowledgements being lost and time outs. However, reliable transport protocols must ensure tha
segments containing the message are passed to the application layer in order and without duplicat

INSTRUCTIONS

The MATLAB code in the window below is similar to that in Task 1. However, since we are intereste
operation of the receiver, we show the implementation of the function **receiver_stopwait()** below t

```
% receiver
```

In each iteration of the simulation, the receiver first checks if a packet has arrived during the curre
using the function **receiver_get_packet()**. This function returns the packet (a 24 bit binary vecto
has arrived or an empty matrix if no packet has arrived. If a packet has arrived, it extracts the first e
the packet, which contain the sequence number of the packet, and sends them back to the sender
packet using the function **receiver_send_ack()**. Then, it adds the received packet to the list of re
packets, called **receiver_packet_list**. Note that, when doing this, the initial code does not check v
new packet is duplicated or not, i.e., whether the new packet has been received before. As a result
message, **rx_msg_1**, reconstructed from **receiver_packet_list** by the function **reconstruct_ms**
duplicated characters.

Your task is to filter out the duplicated packets from **receiver_packet_list** and to create a new list
revised_packet_list, that will contain the packets in the correct order and without redundant item
code contains an incorrect implementation of the filtering described in the lecture on the stop and v

To help you check your result, the code will reconstruct the correct message from the **revised_pa**
and save it to the variable **rx_msg_2**. Revise the code between the lines

```
% % % % Revise the following code   % % % %
```

and

```
% % % % Do not change the code below % % % %
```

Please, do not change other parts of the code.

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Your Solution

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```
    %disp(c);
    %disp(packet);
    %disp(seq_num);
    %disp(last_deliv);
    % compare to last_deliv
    if seq_num == last_deliv+1,
        revised_packet_list = [revised_packet_list; packet];
        last_deliv = seq_num;
        %disp(revised_packet_list);
```

Assessment Tests: Passed

- ✔ Is the problem unchanged?
- ✔ Is the receiver correct?

Output

```
Simulation Time: 369
Number of packets sent correctly: 12
The message before filtering is: Heelllo  WWWWooorrld!
The message after filtering is: Hello World!
```