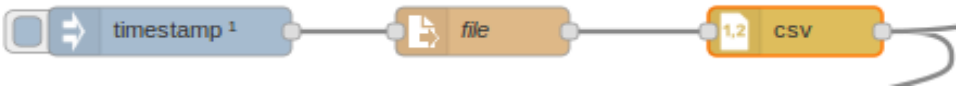
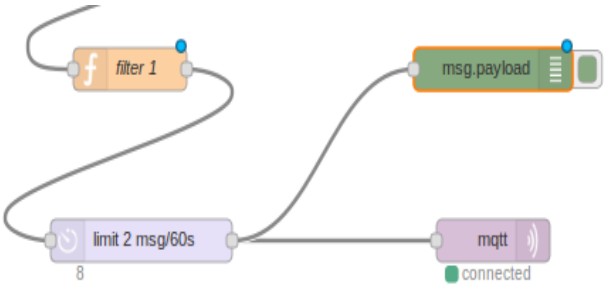
Challenge 2 -

First step: We imported the csv file in Node-Red and then we converted the data in Javascript classes

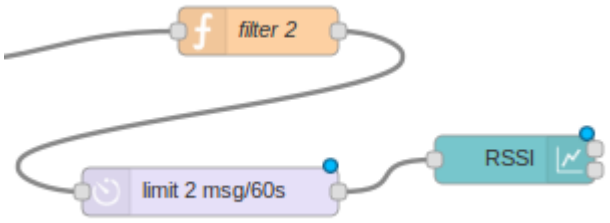


Second step: We filtered the data according to request using filter 1 and we created an MQTT message containing the field1, field2 and field5. We sent all the messages to our ThingSpeak channel previously created and we inserted a delay queue in order to respect the timing constraint




```
1
2  if (msg.payload.code >= 8612 && msg.payload.code < 8712)
3  {
4
5      var field1=msg.payload.field1;
6      var field2=msg.payload.field2;
7      var field5=msg.payload.field5;
8      msg.topic='channels/1710628/publish';
9      msg.payload='field1='+field1+'&field2='+field2+'&field3='+field5+'&status=MQTTPUBLISH';
10
11     return msg;
12
13 }
14
```

Third step: We used another filter in order to select only the value contained in field 5 and we plotted it using a char (here called RSSI). We exploited a delay to make the char more clear




```
1  if (msg.payload.code >= 8612 && msg.payload.code < 8712)
2  {
3      msg.payload=msg.payload.field5;
4
5      return msg;
6
7  }
```

Fourth step: We opened ThingSpeak in order to set the three lamps and to retrieve the data for the delivery