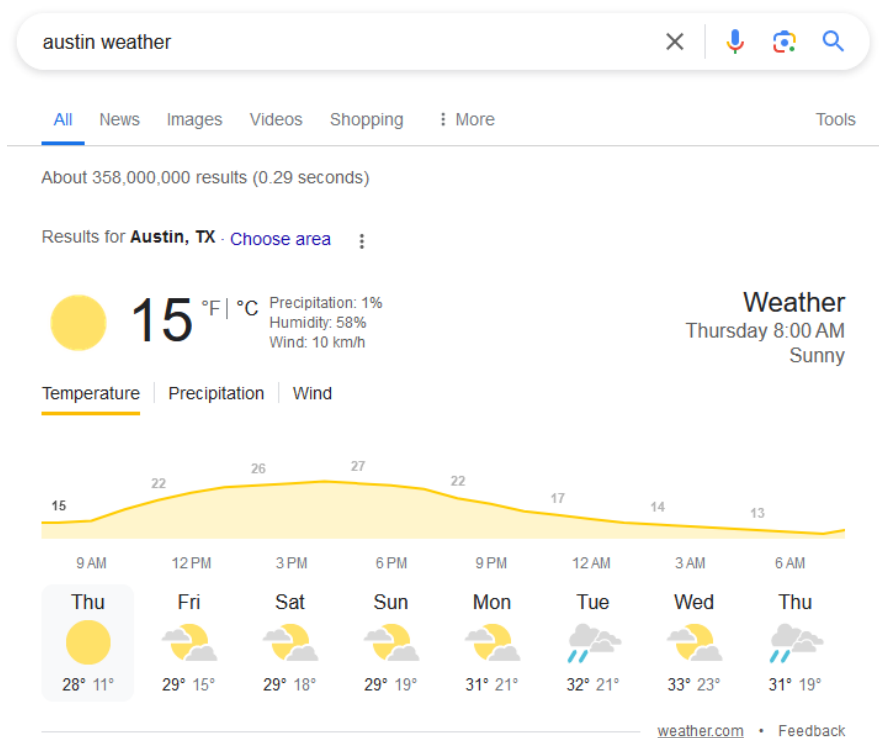Q1.

COM4 - PuTTY

```
Fetching weather from openweathermap.org
Starting configureSimpleLinkToDefaultState(); ... Completed
Starting sl_Start(0, 0, 0); ... Completed
Starting establishConnectionWithAP(); ... Connected
Starting sl_NetAppDnsGetHostByName(api.openweathermap.org) ... Completed
Creating a socket ... Completed
Connecting to this socket ... Completed
Sending this TCP payload to socket
GET /data/2.5/weather?q=Austin&APPID=5eccled3ab635d60af6562144d387667&units=metr
ic HTTP/1.1
Host:api.openweathermap.org
Accept: */*

Received this response from server
HTTP/1.1 200 OK
Server: openresty
Date: Thu, 11 Apr 2024 13:51:51 GMT
Content-Type: application/json; charset=utf-8
Content-Length: 469
Connection: keep-alive
X-Cache-Key: /data/2.5/weather?APPID=5eccled3ab635d60af6562144d387667&q=austin&u
nits=metric
Access-Control-Allow-Origin: *
Access-Control-Allow-Credentials: true
Access-Control-Allow-Methods: GET, POST
```

```
{"coord":{"lon":-97.7431,"lat":30.2672},"weather":[{"id":800,"main":"Clear","des
cription":"clear sky","icon":"01d"}],"base":"stations","main":{"temp":16.46,"fee
ls_like":15.78,"temp_min":13.55,"temp_max":18.99,"pressure":1017,"humidity":62},
"visibility":10000,"wind":{"speed":4.12,"deg":310},"clouds":{"all":0},"dt":17128
43400,"sys":{"type":2,"id":2003218,"country":"US","sunrise":1712837252,"sunset":
1712883344},"timezone":-18000,"id":4671654,"name":"Austin","cod":200}
```

```
Push LaunchPad switch to run again
```


austin weather

All   News   Images   Videos   Shopping   ⋮ More   Tools

About 358,000,000 results (0.29 seconds)

Results for **Austin, TX** · Choose area   ⋮

☀   **15** °F | °C   Precipitation: 1%   **Weather**
                        Humidity: 58%   Thursday 8:00 AM
                        Wind: 10 km/h   Sunny

Temperature | Precipitation | Wind

9 AM	12 PM	3 PM	6 PM	9 PM	12 AM	3 AM	6 AM
15	22	26	27	22	17	14	13

Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu
28° 11°	29° 15°	29° 18°	29° 19°	31° 21°	32° 21°	33° 23°	31° 19°

weather.com · Feedback
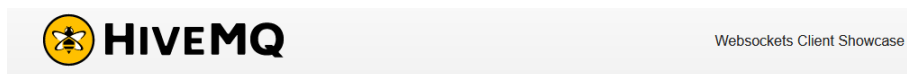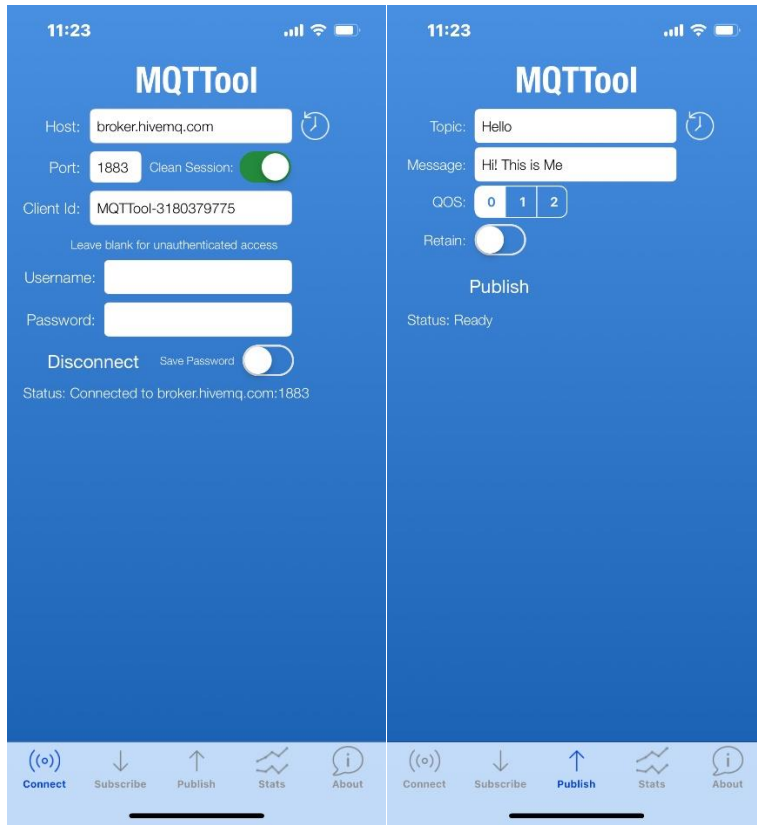
Q2.

Close to AP

```
RSSI: -28
```

5ft from AP

```
RSSI: -43
```

10ft from AP

```
RSSI: -55
```

RSSI gets more negative as AP gets further from robot and the relationship is non linear.

Q3.

Q5.

LAB6

START

STOP

Left Wheel RPMs

112
units

Right Wheel RPMs

0
units

Left Distance
64

Center Distance
110

Right Distance
46

My Web App has 2 buttons to stop and start the robot. It has 2 gauges to show the RPMs of the left and right motors. It has 3 text outputs to show the left, center and right distances from the distance sensor.
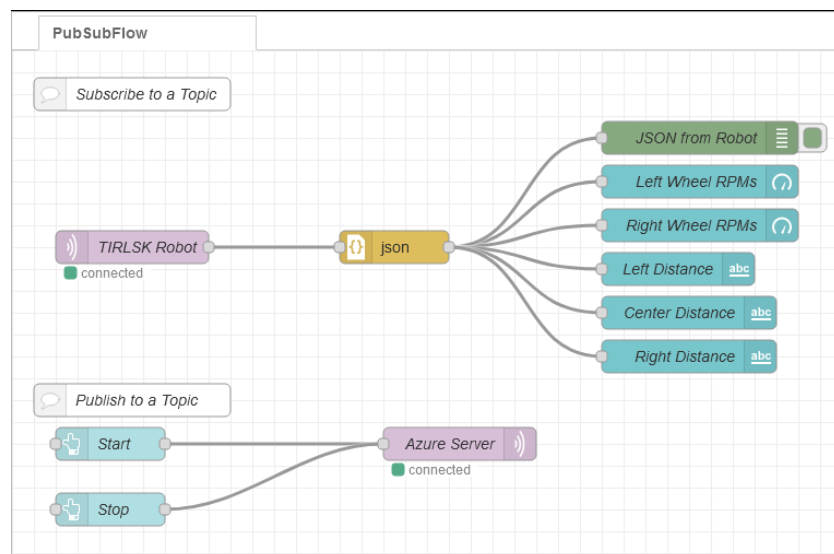
The hyperlink to my web-app http://172.174.245.35:1880