

# POOL TEMPERATURE MANAGEMENT

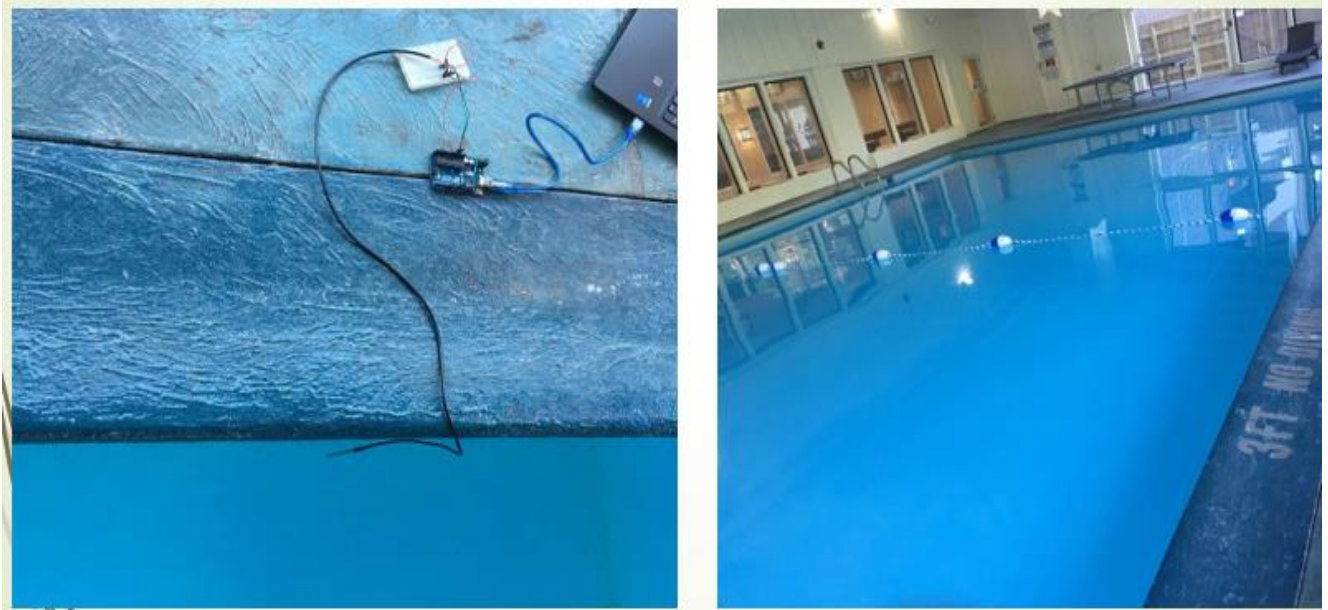
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Introduction: Pool temperature Management system is mainly about monitoring the temperature in pool using one wire with aurdio sensor. This is where I placed my aurdio set in the pool.



Data Spark fun: Creating a stream that handles the data from the sensor

data.sparkfun.com - Streams | Error: 500 Internal Server | svarsha.pythonanywhere.com | WhatsApp

https://data.sparkfun.com/streams/bG7X9IL2wWFg09n5yJRv

DATA.SPARKFUN.COM

pool temperature monitoring pool temperature

JSON CSV MySQL PostgreSQL Atom

Manage Export to Analog.io

TAGS kent pooltemp

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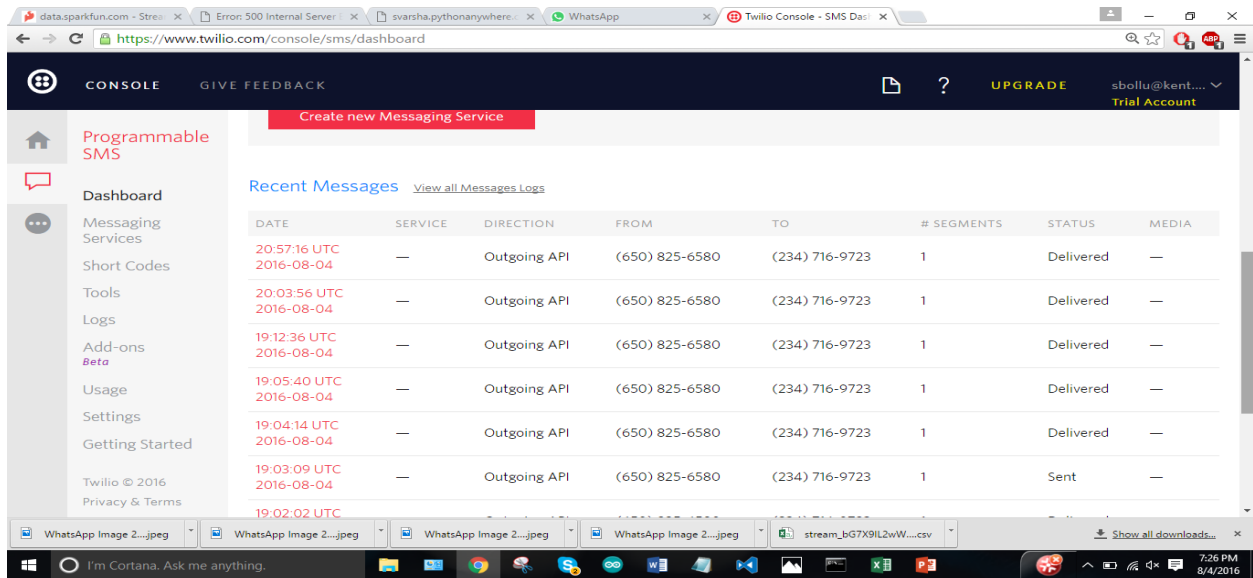
collection_time	temp_celsius	temp_fahrenheit	timestamp
2016-08-04 17:05:35.425760	25.940000	78.690000	2016-08-04T21:05:45.436Z
2016-08-04 17:04:34.921153	25.880000	78.570000	2016-08-04T21:04:41.419Z
2016-08-04 17:03:34.625359	25.880000	78.570000	2016-08-04T21:03:40.978Z
2016-08-04 17:02:34.369989	25.810000	78.460000	2016-08-04T21:02:40.704Z
2016-08-04 17:01:31.774776	25.810000	78.460000	2016-08-04T21:01:39.588Z
2016-08-04 17:00:28.952987	25.750000	78.350000	2016-08-04T21:00:36.423Z
2016-08-04 16:57:09.540256	22.060000	71.710000	2016-08-04T20:57:16.912Z
2016-08-04 16:53:08.650475	25.880000	78.570000	2016-08-04T20:53:15.605Z

WhatsApp Image 2...jpeg WhatsApp Image 2...jpeg WhatsApp Image 2...jpeg WhatsApp Image 2...jpeg stream\_bG7X9IL2wWFg09n5yJRv.csv Show all downloads

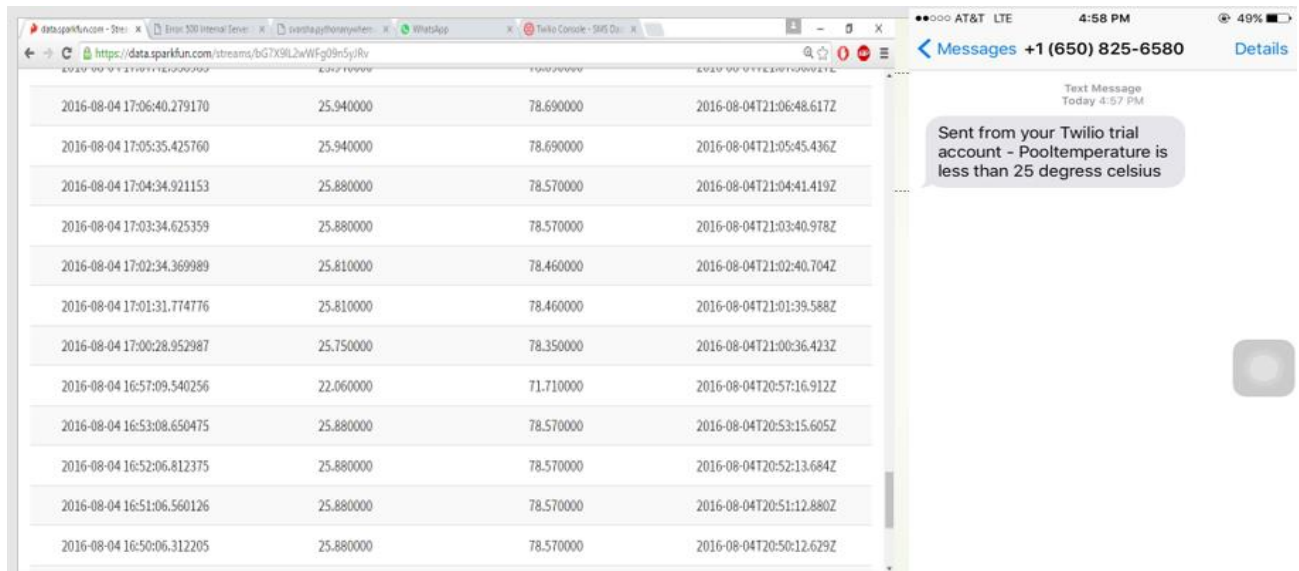
I'm Cortana. Ask me anything.

7:20 PM 8/4/2016

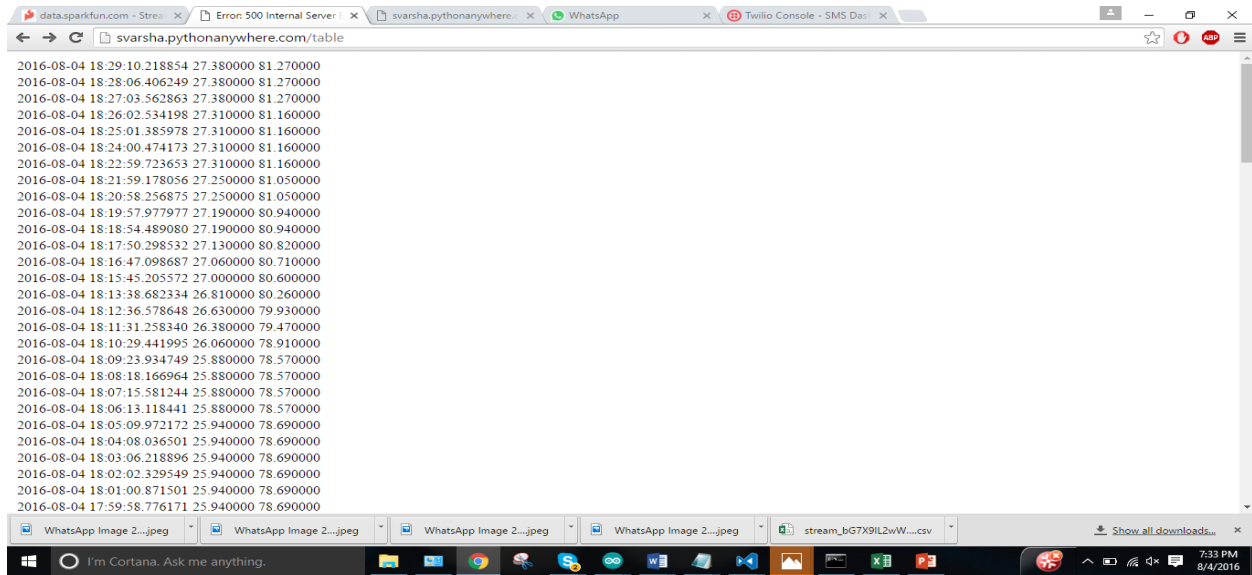
After getting the data into the stream, then we need to check the temperature range of the pool should be 25-28 Celsius. To know when your pool temperature is not in the range I used twilio a good python interactive console for SMS.



When the temperature is around 22 Celsius, which is not in the range of the pool temperature it is around 16:57 in collecting time, and SMS is sent to my phone at the same time (16:57) 4:57 pm.



Using pythonanywhere the stream data is displayed in table.



2016-08-04 18:29:10.218854	27.380000	81.270000
2016-08-04 18:28:06.406249	27.380000	81.270000
2016-08-04 18:27:03.562863	27.380000	81.270000
2016-08-04 18:26:02.534198	27.310000	81.160000
2016-08-04 18:25:01.385978	27.310000	81.160000
2016-08-04 18:24:00.474173	27.310000	81.160000
2016-08-04 18:22:59.723653	27.310000	81.160000
2016-08-04 18:21:59.178056	27.250000	81.050000
2016-08-04 18:20:58.256875	27.250000	81.050000
2016-08-04 18:19:57.977977	27.190000	80.940000
2016-08-04 18:18:54.489080	27.190000	80.940000
2016-08-04 18:17:50.298532	27.130000	80.820000
2016-08-04 18:16:47.098687	27.060000	80.710000
2016-08-04 18:15:45.205572	27.000000	80.600000
2016-08-04 18:13:38.682334	26.810000	80.260000
2016-08-04 18:12:36.578648	26.630000	79.930000
2016-08-04 18:11:31.258340	26.380000	79.470000
2016-08-04 18:10:29.441995	26.060000	78.910000
2016-08-04 18:09:23.934749	25.880000	78.570000
2016-08-04 18:08:18.166964	25.880000	78.570000
2016-08-04 18:07:15.581244	25.880000	78.570000
2016-08-04 18:06:13.118441	25.880000	78.570000
2016-08-04 18:05:09.972172	25.940000	78.690000
2016-08-04 18:04:08.036501	25.940000	78.690000
2016-08-04 18:03:06.218896	25.940000	78.690000
2016-08-04 18:02:02.329549	25.940000	78.690000
2016-08-04 18:01:00.871501	25.940000	78.690000
2016-08-04 17:59:58.776171	25.940000	78.690000

Using google charts: Temperature v/s timenode

