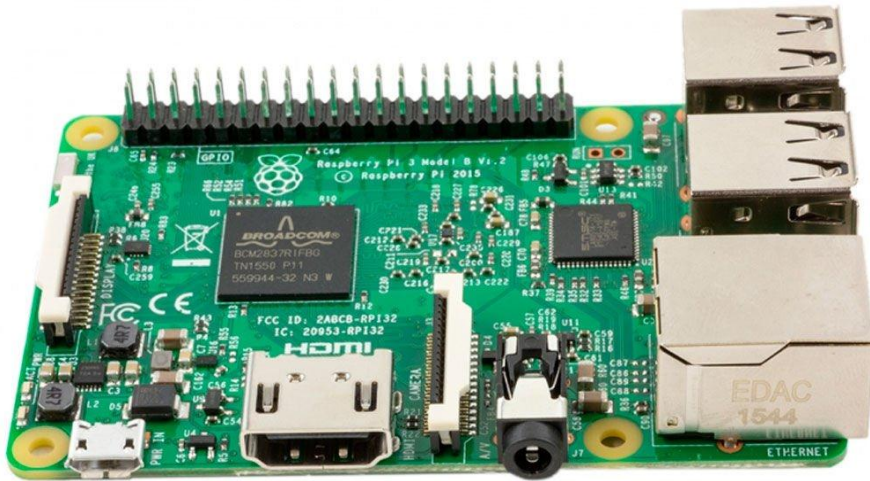


BPR – PCI Raspberry Pi Datenbank



Projektteam: Patrick Bogner
Felix Putz

Lektor: Dipl.-Ing. Karl Hartinger

Agenda

- Ziele
- Software
 - Probleme
- Kommunikation
- Visualisierung der Daten

- Speichern und Visualisieren der Raumklimadaten

- Pi
 - Raspbian Jessie
 - Tight VNC Server
 - MySQL
 - phpMyAdmin



















































































































- PC
 - Ultra VNC Viewer
 - Putty
 - XAMPP

- Probleme: statische IP Adresse

- http
- Daten
 - User
 - Zeitstempel
 - Temperatur
 - Güte
 - LED
 - Status
 - Reserve

Schnittstellensimulation Input

User:	<input type="text" value="1"/>
Temperatur:	<input type="text" value="20"/>
Güte:	<input type="text" value="400"/>
LED:	<input type="text" value="grün"/>
Status:	<input type="text" value="OK"/>
Reserve1:	<input type="text" value="0"/>
Reserve2:	<input type="text" value="0"/>
Reserve3:	<input type="text" value="0"/>
Reserve4:	<input type="text" value="0"/>
Reserve5:	<input type="text" value="0"/>

		id	user	datetime Datum und Zeit	temperature Temperatur	guete Luftqualität	LED	state Status	reserve1	reserve2	reserve3	reserve4	reserve5
  Edit  Copy  Delete		19	1	1	20	400	1	1	0	0	0	0	0
  Edit  Copy  Delete		20	1	1	20	400	1	1	0	0	0	0	0
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Visualisierung der Daten

Datenbankzugriff

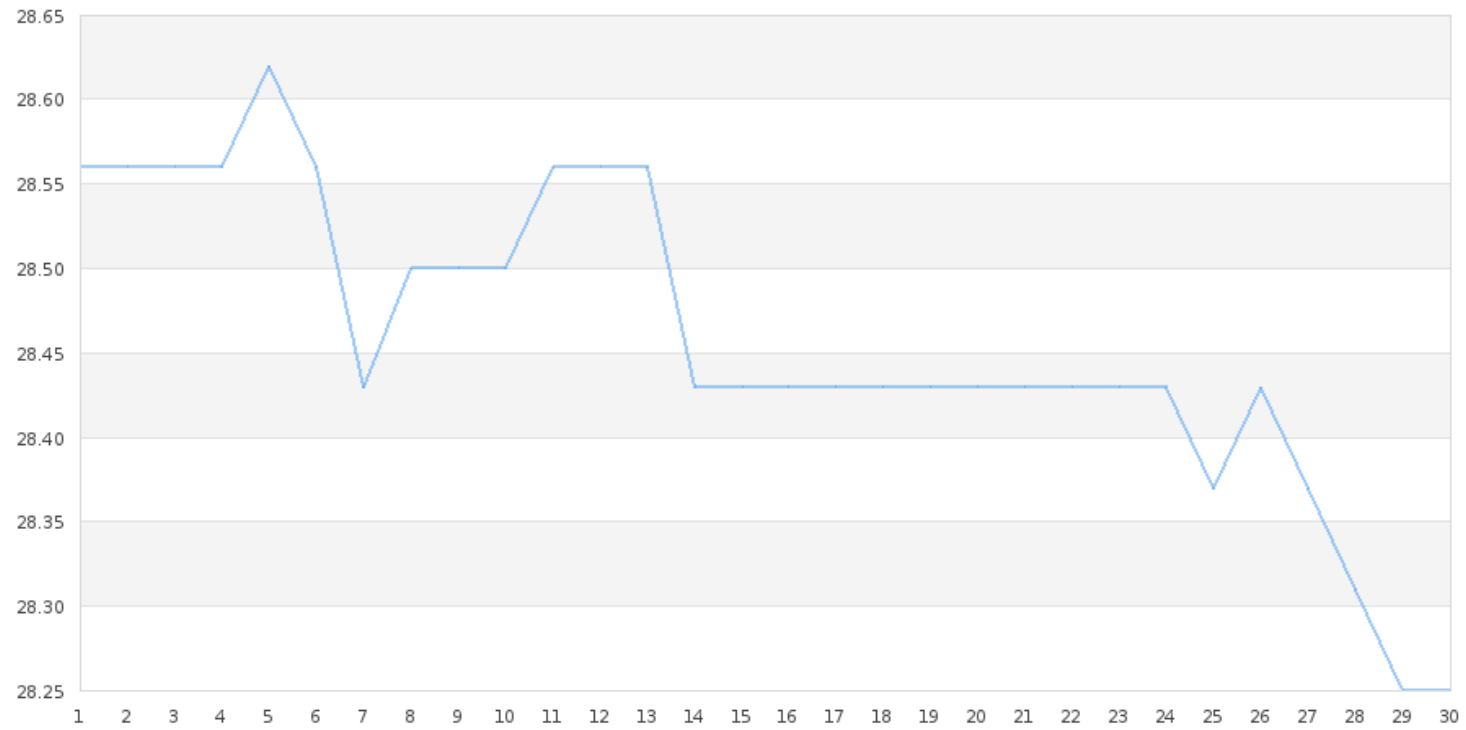
Daten aus der Datenbank Raumklima

id	user	datetime	temperature	guete	LED	state	reserve1	reserve2	reserve3	reserve4	reserve5
147	1	18.06.2016 15:11	28.56	624	Gruen	OK	1	2	3	4	5
146	1	18.06.2016 15:11	28.56	624	Gruen	OK	1	2	3	4	5
145	1	18.06.2016 15:11	28.56	624	Gruen	OK	1	2	3	4	5
144	1	18.06.2016 15:11	28.56	624	Gruen	OK	1	2	3	4	5
143	1	18.06.2016 15:10	28.62	942	Gruen	OK	1	2	3	4	5
142	1	18.06.2016 15:10	28.56	1345	Gelb	Warning	1	2	3	4	5
141	1	18.06.2016 15:08	28.43	451	Gruen	OK	1	2	3	4	5
140	1	18.06.2016 15:08	28.5	450	Gruen	OK	1	2	3	4	5
139	1	18.06.2016 15:06	28.5	1132	Gelb	Warning	1	2	3	4	5
138	1	18.06.2016 15:05	28.5	524	Gruen	OK	1	2	3	4	5
137	1	18.06.2016 15:04	28.56	1773	Rot	Critical	1	2	3	4	5
135	1	18.06.2016 15:03	28.56	1887	Rot	Critical	1	2	3	4	5
136	1	18.06.2016 15:03	28.56	1887	Rot	Critical	1	2	3	4	5
131	1	18.06.2016 14:52	28.43	1190	Gelb	Warning	1	2	3	4	5
125	1	18.06.2016 14:52	28.43	1190	Gelb	Warning	1	2	3	4	5
126	1	18.06.2016 14:52	28.43	1190	Gelb	Warning	1	2	3	4	5
127	1	18.06.2016 14:52	28.43	1190	Gelb	Warning	1	2	3	4	5
128	1	18.06.2016 14:52	28.43	1190	Gelb	Warning	1	2	3	4	5
129	1	18.06.2016 14:52	28.43	1190	Gelb	Warning	1	2	3	4	5
132	1	18.06.2016 14:52	28.43	1190	Gelb	Warning	1	2	3	4	5
133	1	18.06.2016 14:52	28.43	1190	Gelb	Warning	1	2	3	4	5
134	1	18.06.2016 14:52	28.43	1190	Gelb	Warning	1	2	3	4	5
130	1	18.06.2016 14:52	28.43	1190	Gelb	Warning	1	2	3	4	5
124	1	18.06.2016 14:51	28.43	621	Gruen	OK	1	2	3	4	5
123	1	18.06.2016 14:50	28.37	450	Gruen	OK	1	2	3	4	5
122	1	18.06.2016 14:49	28.43	0	Gruen	No Sensor	1	2	3	4	5
121	1	18.06.2016 14:48	28.37	0	Gruen	No Sensor	1	2	3	4	5
120	1	18.06.2016 14:47	28.31	0	Gruen	No Sensor	1	2	3	4	5
119	1	18.06.2016 14:44	28.25	1	0	0	1	2	3	4	5
118	1	18.06.2016 14:44	28.25	1	0	0	1	2	3	4	5

Zeit der Datenbankabfrage: 18.06.2016 - 15:52 Uhr

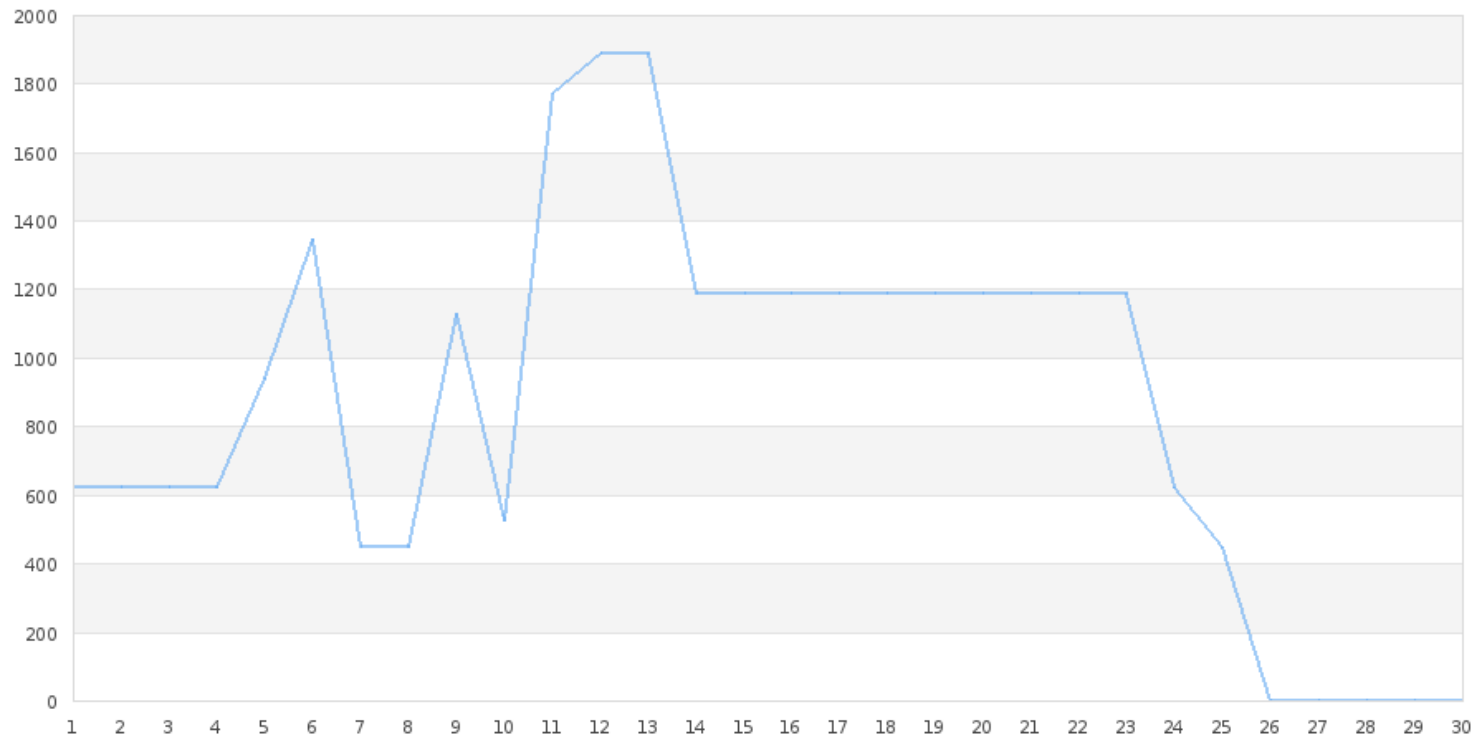
Visualisierung der Daten

Temperatur- Diagramm



Visualisierung der Daten

Guete- Diagramm



Danke für Ihre Aufmerksamkeit!