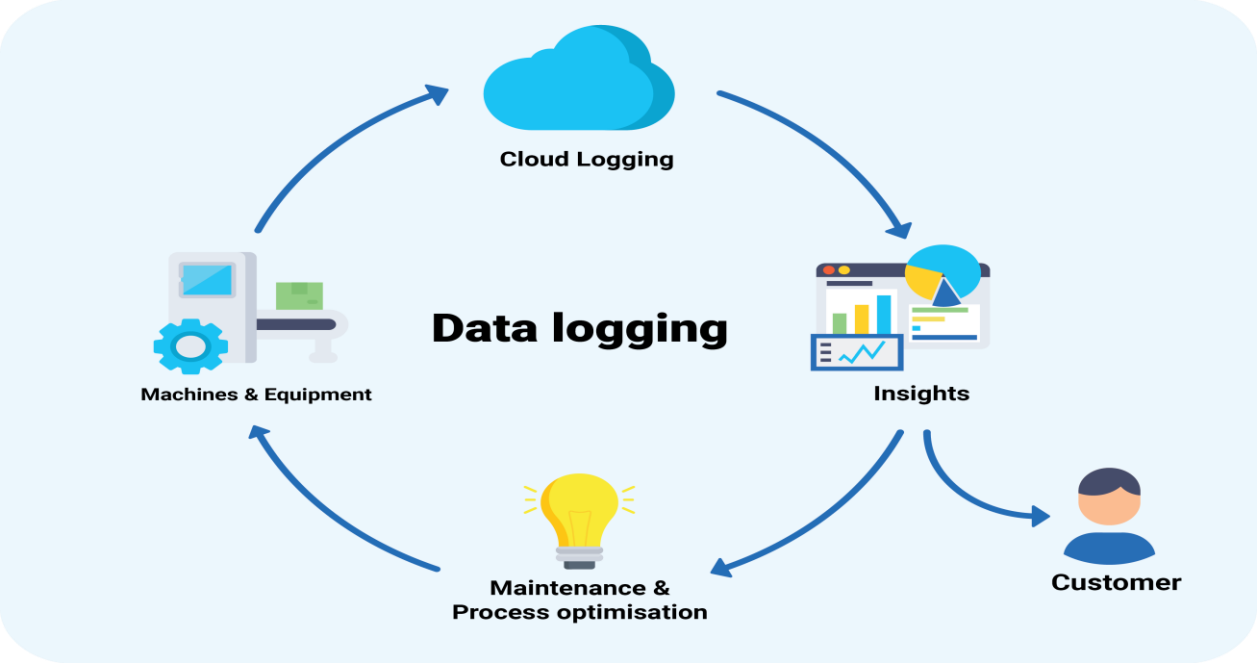
Workshop 9: Rpi as router

1.1 Description

Make a raspberry pi as a router and make it possible to import data to a database.



1.2 Equipment

- Rpi
- Rpi imager
- Termius
- Network connection
- Ethernet cable
- Extra monitor and keyboard
- PC

1.3 Raspberry Pi as router

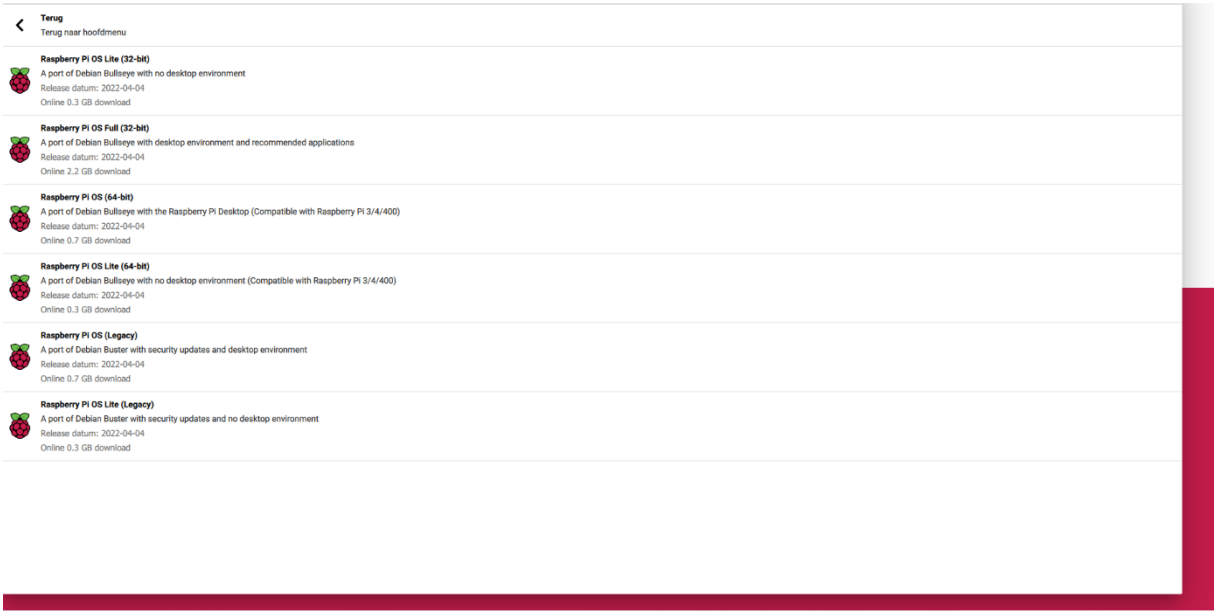
Raspberry Pi as router is a cheap method to have your own webinterface and easy to make graphs.





1.3.1 OS-system

First install the 64 bit light OS on the Rpi

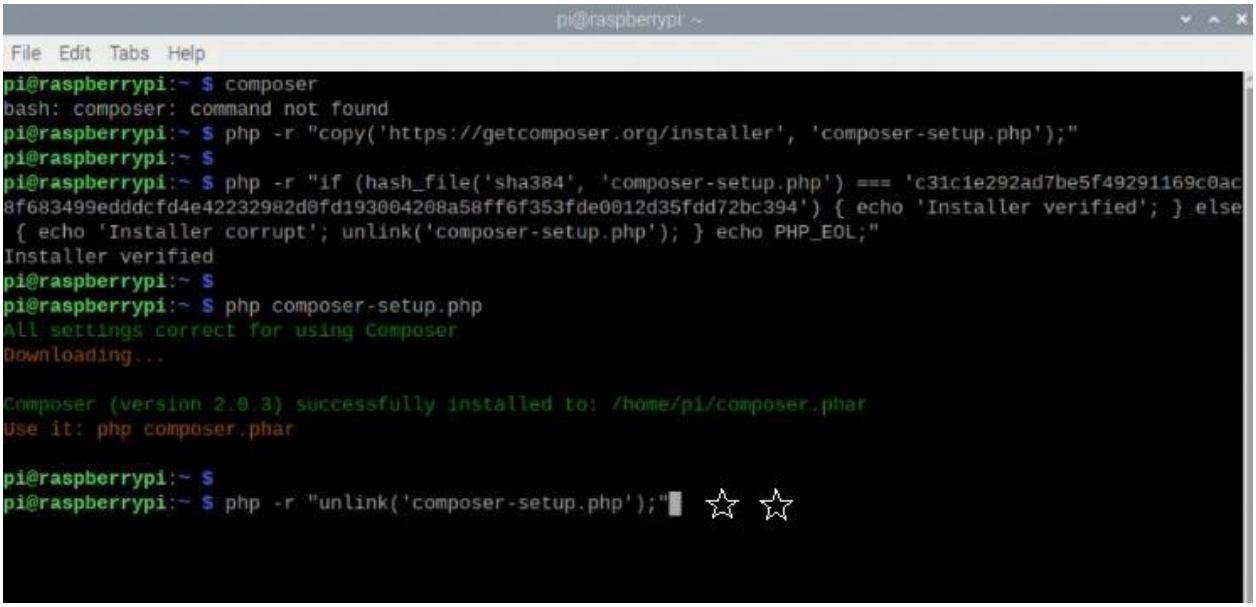


1.3.2 Website host with Rpi

First step is to make a webpage. This can be done by install Apach.

1.3.3 PHP

Install PHP to make it possible to make graphs.



1.3.4 Server

To gather information we need to make a server, we will use MariaDB.



1.3.5 Database

To import data to the database we will need MysQL.

1.4 ESP

We will need to connect a sensor to the ESP that we will send to the database.

1.5 Data graph

To get data we need a php script

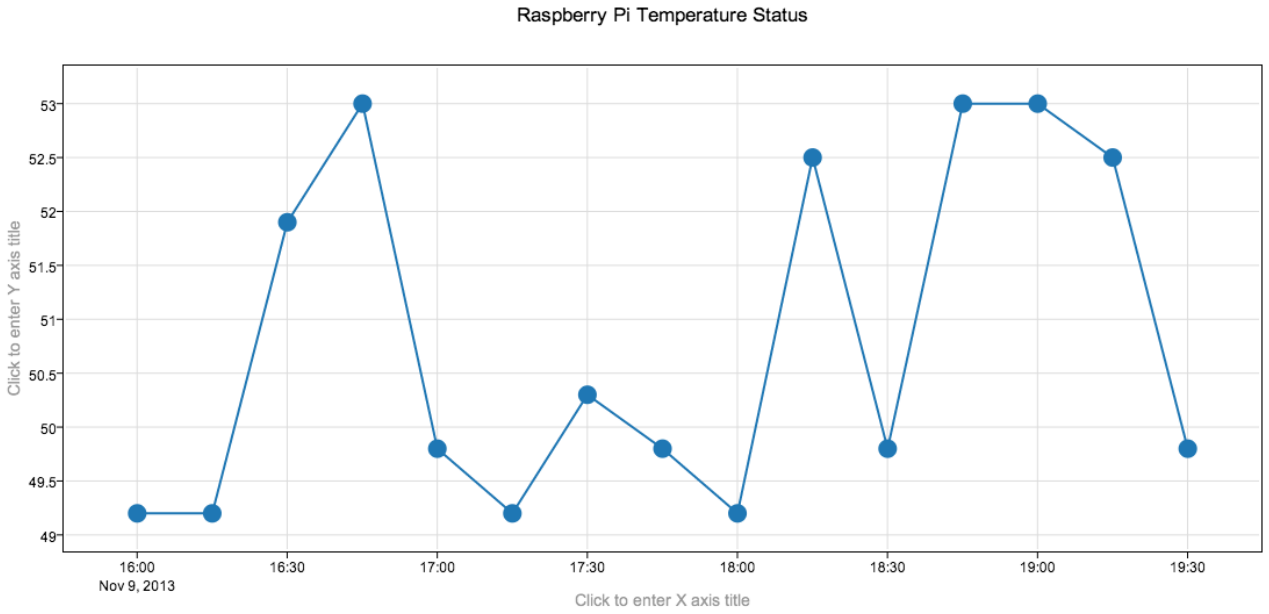
```php
<?php

$servername = "localhost";
$username = "root";
$password = "vtitielt";
$dbname = "DATALOGGING";

// Create connection
$conn = mysqli_connect($servername, $username, $password, $dbname);
// Check connection
if (!$conn) {
  die("Connection failed: " . mysqli_connect_error());
}

$sql = "SELECT * FROM temperature ORDER BY id DESC limit 1";
$result = mysqli_query($conn,$sql);

if (mysqli_num_rows($result) > 0) {
while($row = mysqli_fetch_assoc($result)) {
echo "id: " . $row["id"]. " temperature: " . $row["temp"]. " datum:" . $row["date"]. "<br>";}
} else {
  echo "0 results";
}
mysqli_close($conn);
?>
```


Raspberry Pi Temperature Status
Click to enter Y axis title
53
52.5
52
51.5
51
50.5
50
49.5
49
16:00
Nov 9, 2013
16:30
17:00
17:30
18:00
18:30
19:00
19:30
Click to enter X axis title