DAFTAR LAMPIRAN

Lampiran – 1 *Listing* program *ESP8266* menggunakan *Arduino IDE*

```
#include <ESP8266HTTPClient.h>
#include <ESP8266WiFi.h>

const char* ssid     = "11";
const char* password =
"satusatu";
const int trigPin = 14;
const int echoPin = 12;

long duration;
int distance;
int interval = 30;
const char* host =
"engineeringcarwash.000webhost
app.com";

void setup() {
  Serial.begin(9600);
  pinMode(trigPin, OUTPUT);
  pinMode(echoPin, INPUT);
  delay(10);

  initWifi();
  makeHTTPRequest();
}

void loop() {
  unsigned long currentMillis
= millis();
  bacajarak();
  int ctx=0;
  if (distance < 7) {
    while (1) {
      delay(1000);
      Serial.println("Proses
Cuci....." + String(ctx++) + "
Detik");
      if(ctx==interval){
        makeHTTPRequest();

Serial.println("Selesai
cuci...");
        delay(1000);
        break;
      }
    }
  }
}

void bacajarak()
{
  digitalWrite(trigPin, LOW);
  delayMicroseconds(2);
  digitalWrite(trigPin, HIGH);
  delayMicroseconds(10);
  digitalWrite(trigPin, LOW);

  duration = pulseIn(echoPin,
HIGH);
  distance = duration * 0.034
/ 2;
  Serial.println("Jarak Sensor
: " + String(distance) +
"cm");
}

void initWifi() {
  Serial.print("Connecting to:
");
  Serial.print(ssid);
  WiFi.begin(ssid, password);

  while (WiFi.status() !=
WL_CONNECTED) {
    delay(250);
    Serial.print(".");
  }
  Serial.println("");

  if (WiFi.status() !=
WL_CONNECTED) {
    Serial.println("gagal
terkoneksi, ke mode sleep");
  }

  Serial.print("Wifi sukses
terkonek: ");
  Serial.print(millis());
  Serial.print(", IP addr :
");

Serial.println(WiFi.localIP())
;
}

void makeHTTPRequest() {
  WiFiClient client;
  const int httpPort = 80;
  if (!client.connect(host,
httpPort)) {
```

```
    Serial.println("connection
failed");
    return;
  }

  String getData, Link;
  HTTPClient http;
  Link = "http://" +
String(host) +
"/kirimdata.php?jarak=" +
String(distance);
  http.begin(Link);
  int httpCode = http.GET();
  String payload =
http.getString();
  Serial.println(payload);
  http.end();
}
```

Lampiran – 2 *Listing* program halaman *monitoring* sensor (index.php)

```
<!DOCTYPE html>
<html>
<head>
      <meta charset="utf-8">
  <meta http-equiv="X-UA-
Compatible"
content="IE=edge">
  <meta name="viewport"
content="width=device-width,
initial-scale=1">
  <meta name="description"
content="">
  <meta name="author"
content="">
  <link rel="icon"
href="assets/img/carwash.png"
>

      <title>Carwash</title>
  <link
href="assets/css/bootstrap.mi
n.css" rel="stylesheet">
  <link
href="assets/style.css"
rel="stylesheet">
  <script src="jquery-
latest.js"></script>
  <script
type="text/javascript"
src="assets/js/jquery-
3.4.0.min.js"></script>
      <script
type="text/javascript"
src="assets/js/mdb.min.js"></
script>

  <script>
            var refreshId =
setInterval(function()
            {

$('#response').load('data.php
');
            }, 2000);
      </script>

</head>
<body>

    <nav class="navbar
navbar-default navbar-fixed-
top">
      <div class="container">
        <div class="navbar-
header">
          <button type="button"
class="navbar-toggle collapsed"
data-toggle="collapse" data-
target="#navbar" aria-
expanded="false" aria-
controls="navbar">
            <span class="sr-
only">Toggle navigation</span>
            <span class="icon-
bar"></span>
            <span class="icon-
bar"></span>
            <span class="icon-
bar"></span>
          </button>
          <a class="navbar-brand"
href="./"><img
src="assets/img/carwash.png"
width="50"></a>
        </div>
        <div id="navbar"
class="collapse navbar-collapse">
          <ul class="nav navbar-
nav">
            <li>
              <a
href="index.php">Monitoring</a></li
>
            </li>
            <li>
              <a
href="log.php">Data Logger</a></li>
            </li>
          </ul>
        </div>
      </div>
    </nav>



            <div class="container"
style="text-align: center;">
                  <img
src="assets/img/carwash.png"
style="width: 200px;">
                  <h2>Engineering
Carwash</h2>
                  <p>Jumlah Mobil
Hari Ini : <?php echo date("d F
Y"); ?></p>
              <div
id="responsecontainer3">
                <div
class="panel panel-default">
```

```
                        <div
class="panel-body"
style="text-align: center;
font-size: 100px; font-
weight: bold; color:
red"><span id="response"
style="text-shadow: 0 7px 7px
rgba(0, 0, 0,
0.5);">0</span></div>
                    </div>
              </div>
            </div>


    <div class="container"
style="text-align: center">
          © Copyright
217280038
    </div>

    <script
src="assets/js/jquery.min.js"
></script>

    <script
src="assets/js/bootstrap.min.
js"></script>
</body>
</html>
```

Lampiran – 3 *Listing* program halaman *monitoring* sensor (log.php)

```
<!DOCTYPE html>
<html>
<head>
  <meta charset="utf-8">
  <meta http-equiv="X-UA-
Compatible"
content="IE=edge">
  <meta name="viewport"
content="width=device-width,
initial-scale=1">

  <meta name="description"
content="">
  <meta name="author"
content="">
  <link rel="icon"
href="assets/img/carwash.png"
>

  <title>Carwash</title>

  <link
href="assets/css/bootstrap.mi
n.css" rel="stylesheet">
  <link
href="assets/style.css"
rel="stylesheet">
  <script src="jquery-
latest.js"></script>

  <script
type="text/javascript"
src="assets/js/jquery-
3.4.0.min.js"></script>
  <script
type="text/javascript"
src="assets/js/mdb.min.js"></
script>
  <link rel="stylesheet"
type="text/css"
href="https://cdn.datatables.
net/1.10.25/css/dataTables.bo
otstrap4.min.css">

</head>
<body>


    <nav class="navbar
navbar-default navbar-fixed-
top">
      <div class="container">
        <div class="navbar-
header">
          <button type="button"
class="navbar-toggle collapsed"
data-toggle="collapse" data-
target="#navbar" aria-
expanded="false" aria-
controls="navbar">
            <span class="sr-
only">Toggle navigation</span>
            <span class="icon-
bar"></span>
            <span class="icon-
bar"></span>
            <span class="icon-
bar"></span>
          </button>
          <a class="navbar-brand"
href="./"><img
src="assets/img/carwash.png"
width="50"></a>
        </div>
        <div id="navbar"
class="collapse navbar-collapse">
          <ul class="nav navbar-
nav">
            <li>
              <a
href="index.php">Monitoring</a></li>
            </li>
            <li>
              <a href="log.php">Data
Logger</a></li>
            </li>
          </ul>
        </div>
      </div>
    </nav>




    <?php
      $tglawal = "";
      $tglakhir = "";
      if(isset($_POST['btnFilter']))
      {
        $tglawal =
$_POST['tglawal'];
        $tglakhir =
$_POST['tglakhir'];
      }
    ?>

    <div class="container"
style="text-align: center;">
```

```
      <img
src="assets/img/carwash.png"
style="width: 200px;">
      <h2>Engineering Carwash
"</h2>
      <p>Rekapitulasi Data
Pencucian Mobil</p>
      <br>
      <form method="POST"
action="">
      <div class="row
container" style="display:
flex; float: right">
          <div class="md-col-
2"><b>Filter
:</b> </div>
          <div class="md-col-
2"><input type="date"
name="tglawal" id="tglawal"
class="form-control"
value="<?php echo $tglawal;
?>"></div>
          <div class="md-col-
1"> </div>
          <div class="md-col-
2"><input type="date"
name="tglakhir" id="tglakhir"
class="form-control"
value="<?php echo $tglakhir;
?>"></div>
          <div class="md-col-
1"> </div>
          <div class="md-col-
1"><button type="submit"
class="btn btn-primary"
name="btnFilter"
id="btnFilter">Filter</button
></div>
      </div>
      </form>

      <table id="example"
class="table table-bordered
table-hover">
        <thead>
        <tr
style="background-color:
#edf2fa">
          <th style="width:
10px; text-align: center;
">No</th>
          <th style="text-
align: center; ">Tanggal</th>
          <th style="text-
align: center; ">Jam</th>
          <th style="text-
align: center; ">Jumlah</th>
        </tr>
        </thead>
        <tbody>
        <?php
          include "koneksi.php";

          if($tglawal == "" &&
$tglakhir == "")
              $sql =
MySQLi_query($konek, "SELECT * FROM
tb_data order by tanggal DESC");
          else if($tglawal != "" &&
$tglakhir == "")
              $sql =
MySQLi_query($konek, "SELECT * FROM
tb_data WHERE tanggal='$tglawal'
order by tanggal DESC");
          else if($tglawal != "" &&
$tglakhir != "")
              $sql =
MySQLi_query($konek, "SELECT * FROM
tb_data WHERE tanggal BETWEEN
'$tglawal' AND '$tglakhir' order by
tanggal DESC");

          $no=0;

while($data=MySQLi_fetch_array($sql)
)
          {
            $no++;
            $tanggal =
date_create($data['tanggal']);
            $tanggal =
date_format($tanggal, "d-m-Y");
        ?>
        <tr style="text-align:
center;">
          <td style="text-align:
center; "><?php echo $no; ?></td>
          <td style="text-align:
center; "><?php echo $tanggal;
?></td>
          <td style="text-align:
center; "><?php echo $data['jam'];
?></td>
          <td style="text-align:
center; "><?php echo
$data['jumlah']; ?></td>
        </tr>
        <?php } ?>
        </tbody>
      </table>
    </div>
```

```
    <div class="container"
style="text-align: center">
      © Copyright 217280038
    </div>

    <script
src="assets/js/jquery.min.js"
></script>
    <script
src="assets/js/bootstrap.min.
js"></script>

    <script
src="https://code.jquery.com/
jquery-3.5.1.js"
type="text/javascript"></scri
pt>
    <script
src="https://cdn.datatables.n
et/1.10.25/js/jquery.dataTabl
es.min.js"
type="text/javascript"></scri
pt>
    <script
src="https://cdn.datatables.n
et/1.10.25/js/dataTables.boot
strap4.min.js"
type="text/javascript"></scri
pt>

    <script>

$(document).ready(function()
{

$('#example').DataTable({
          "lengthChange":
false,
          "bInfo" : false
        });
    } );
    </script>
</body>
</html>
```

Lampiran – 4 *Listing* program back end.

(Koneksi.php)

```
<?php
$host ='localhost';
$user ='id18223593_tugasakhir';
$pas ='Bg9D]d1g5I(skbX<';
$database='id18223593_dbcarwash';
?>
```

(Kirimdata.php)

```
<?php
      include "koneksi.php";
      date_default_timezone_set("Asia/Jakarta");

      $tglnow = date('Y-m-d');
      $timenow = date('H:i:s');

      MySQLi_query($konek, "ALTER TABLE tb_data AUTO_INCREMENT=1");
      $simpan = MySQLi_query($konek, "insert into tb_data(tanggal, jam, jumlah)values('$tglnow', '$timenow', '1')");
      if($simpan)
            echo "Berhasil Dikirim";
      else
            echo "Gagal Dikirim";
?>
```

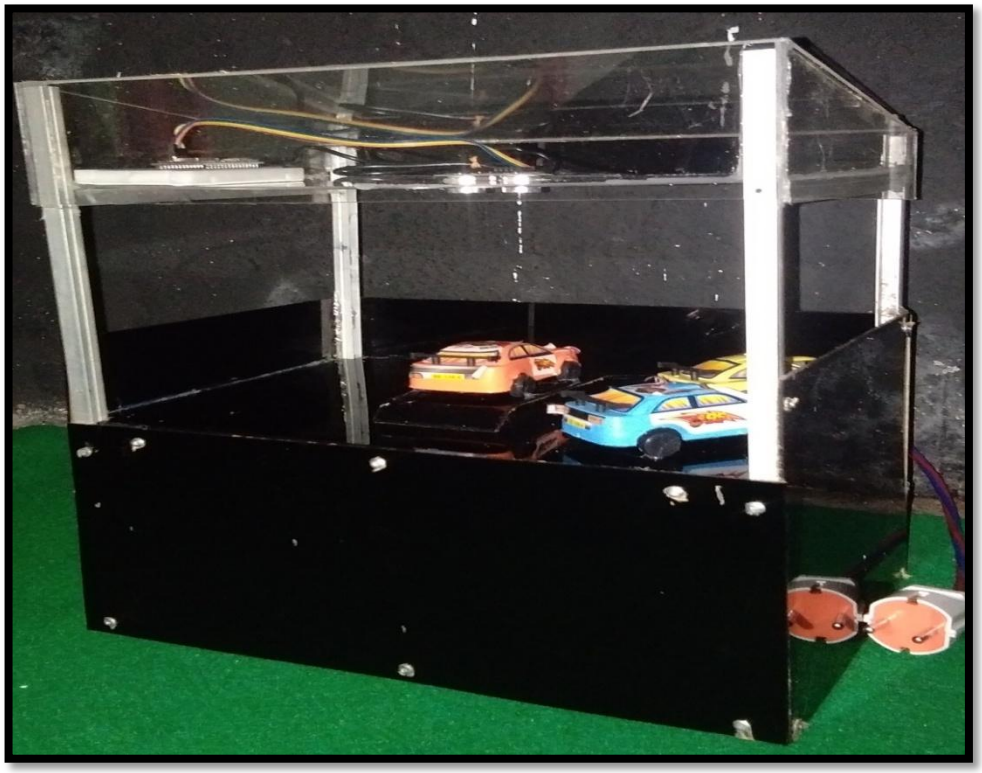
(Data.php)

```
<?php
  include "koneksi.php";

date_default_timezone_set("Asia/Jakarta");
  $tglnow = date('Y-m-d');

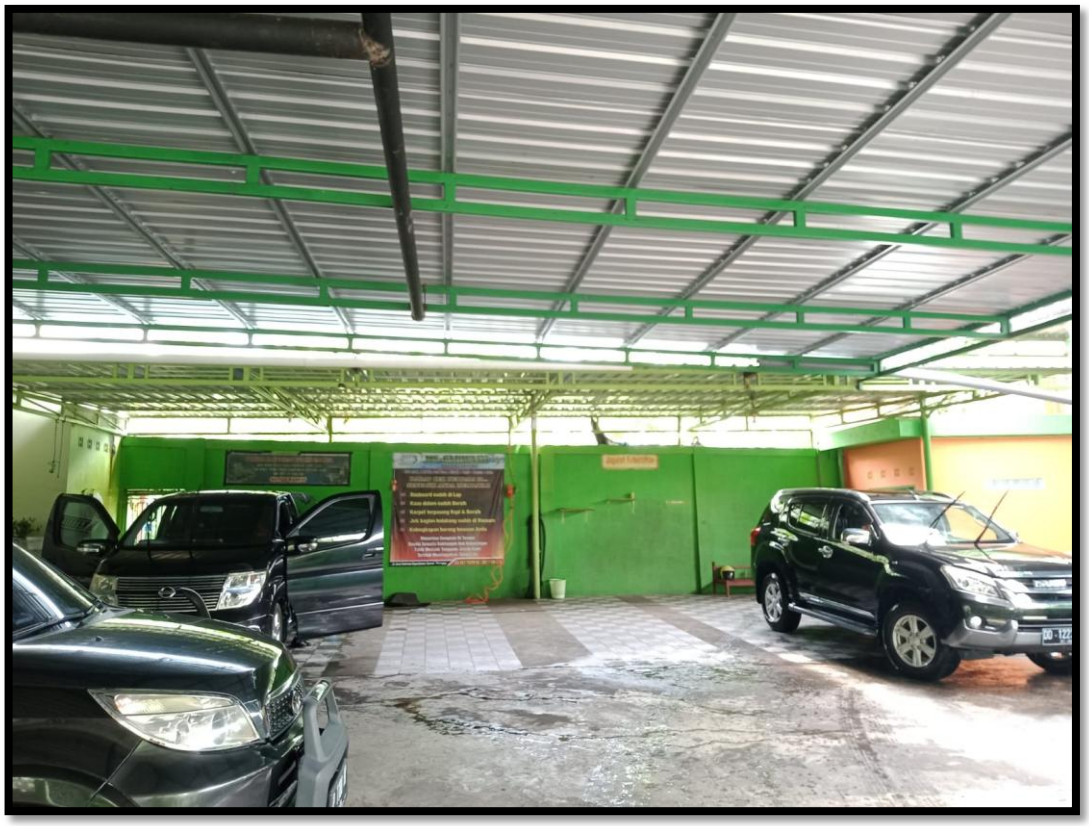
  $sql = MySQLi_query($konek, "SELECT * FROM tb_data WHERE tanggal='$tglnow'");
  echo MySQLi_num_rows($sql);
?>
```

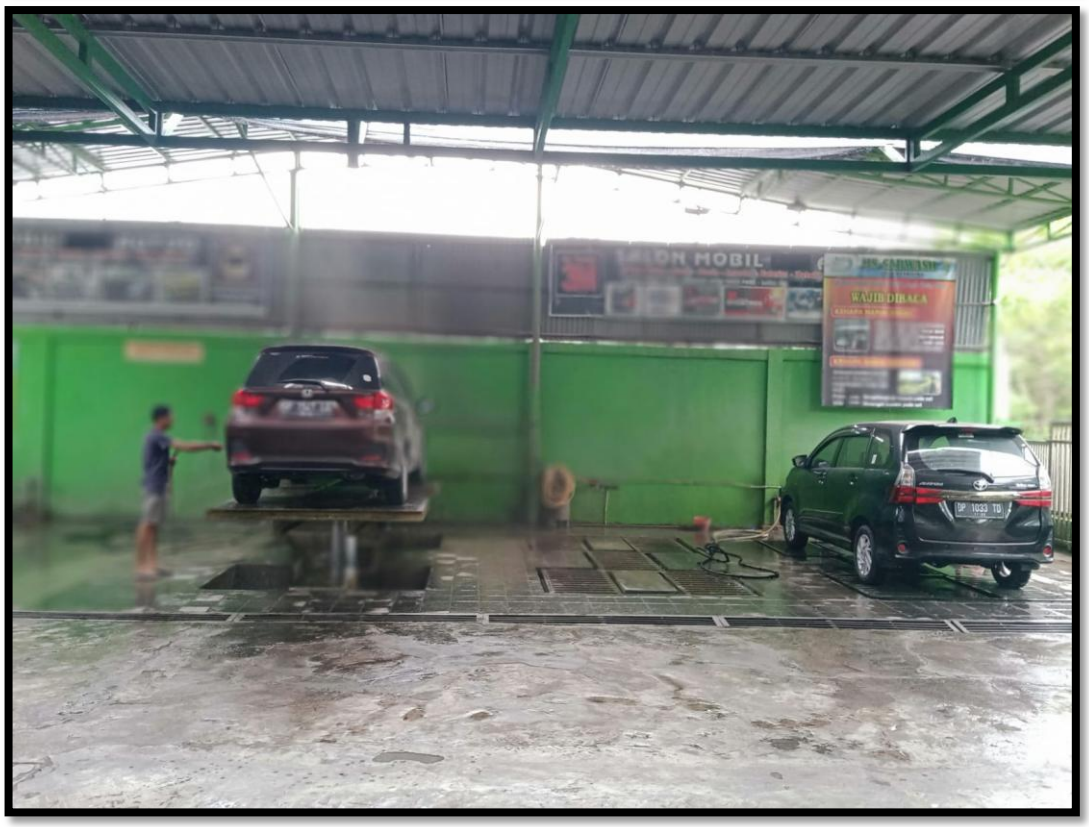
Lampiran-5 Dokumentasi *Prototype* Alat Pencucian Mobil






DP 2232 AT




WAJIB DIRAWAT

UNIVERSITAS MUHAMMADIYAH PAREPARE
LEMBAGA PENELITIAN DAN PENGABDIAN KEPADA MASYARAKAT
(RESEARCH INSTITUTE AND COMMUNITY SERVICES)
Alamat : Gedung B1 Kampus II UM Parepare, Jl. Jend. Ahmad Yani Km. 6 Parepare Kode Pos 91113 Telp/Fax (0421) 3211751, e-mail: lppm@umpar.ac.id

بسم الله الرحمن الرحيم

Nomor : **0069/LPPM/IL3.AU/IP/2022**
Lampiran : -
Perihal : **Permohonan Izin Penelitian**

Kepada Yth.
Owner Pencucian Mobil di Kota Parepare
di-
Tempat

Assalamu Alaikum Warahmatullahi Wabarakatuh.

Ketua Lembaga Penelitian dan Pengabdian kepada Masyarakat Universitas Muhammadiyah Parepare, menerangkan bahwa:

Nama : **Jecky**
Nim : **217 280 038**
Fakultas/Program Studi : **Teknik/Teknik Informatika**

Adalah Mahasiswa Universitas Muhammadiyah Parepare yang bermaksud untuk melakukan penelitian dengan judul **"Prototype Alat dan Aplikasi Monitoring Pencucian Mobil Berbasis Internet OF Things".**
Sehubungan dengan hal tersebut, dimohon kepada Bapak/Ibu untuk memberikan izin penelitian kepada mahasiswa tersebut selama 2 (dua) Bulan di **Pencucian Mobil di Kota Parepare.**
Atas Perhatian dan kerjasamanya, diucapkan terima kasih.
Wassalamu Alaikum Warahmatullahi Wabarakatuh.

Parepare, 08 Rabiul awal 1443 H / 03 November 2021 M
Ketua,

Dr. Iradhatullah Rahim, M.P.
NIDN. 0926117601

Tembusan Yth.
1. Ketua BPH UMPAR
2. Wakil Rektor I UMPAR
3. Wakil Rektor III UMPAR
4. Dekan Fak. Teknik UMPAR
5. Sdr. Jecky
6. Arsip

Kuisioner Pencucian Mobil

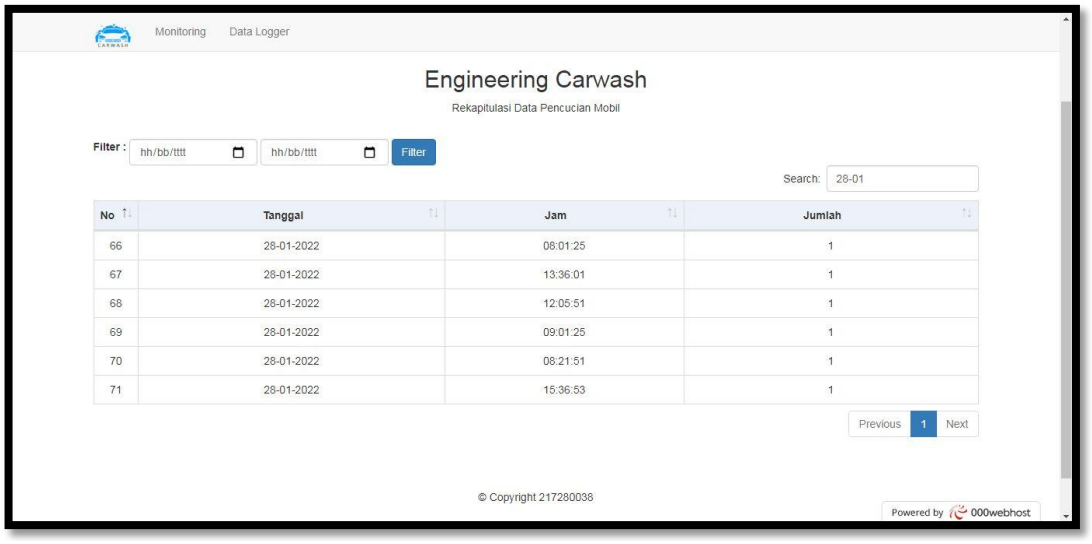
Nama Pemilik : Bpk. Muhmuddin

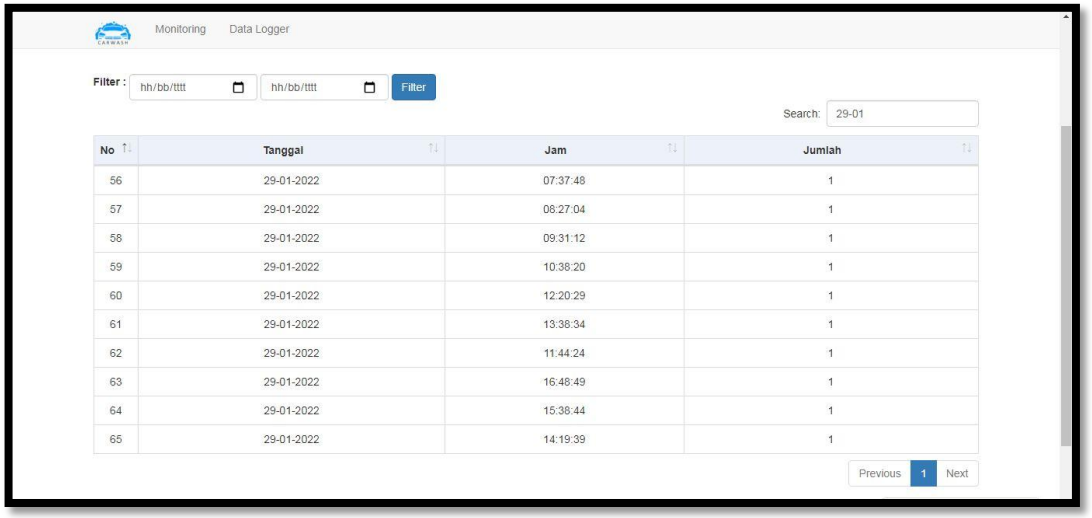
Lokasi : Ms. Carwash 77 parepare

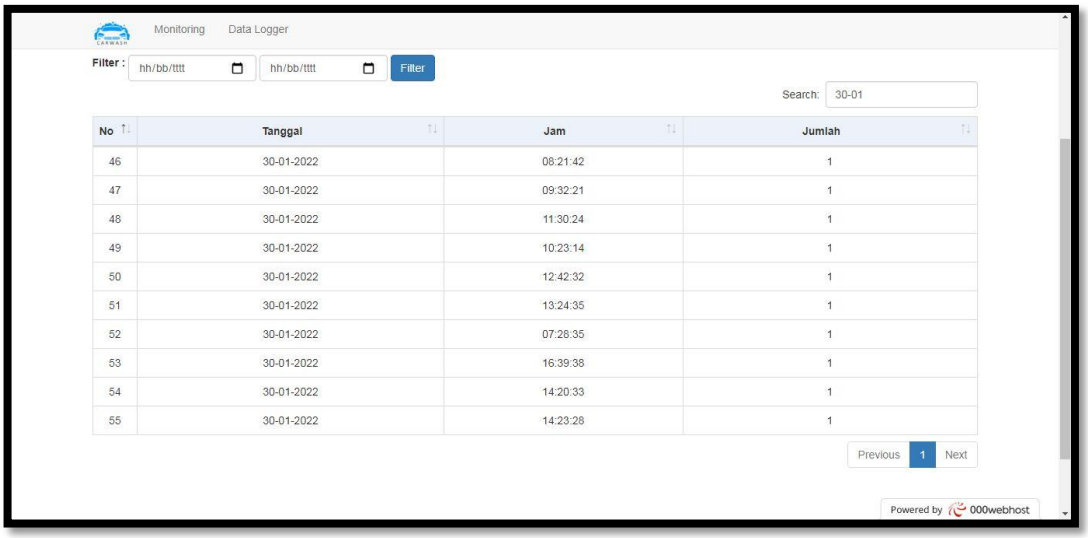
Nomor Telepon : 0821 - 7029 - 9182

Pertanyaan :

1. Berapakah luas ukuran pencucian mobil ini?
   Jawaban : 30M x 20M
2. Berapa Jam operasional pencucian mobil ?
   Jawaban : PUKUL 07.00 S.D 17.00 WITA
3. Jenis hidrolik apa yang digunakan dalam pencucian mobil ini?
   Jawaban : HIDROLIK TYPE H
4. Berapakah panjang, tinggi, serta lebar dari hidrolik yang digunakan ?
   Jawaban : P = 410 CM
   T = 170 CM
   L = 220 CM
5. Hidrolik yang digunakan diperuntukkan pada jenis kendaraan apa?
   Jawaban : MINI BUS
6. Berapakah jarak antara lantai dengan atap pencucian mobil ?
   Jawaban : 6M
7. Berapa rata-rata jumlah mobil yang dicuci setiap harinya ?
   Jawaban : 10 - 20 MOBIL PER HARI

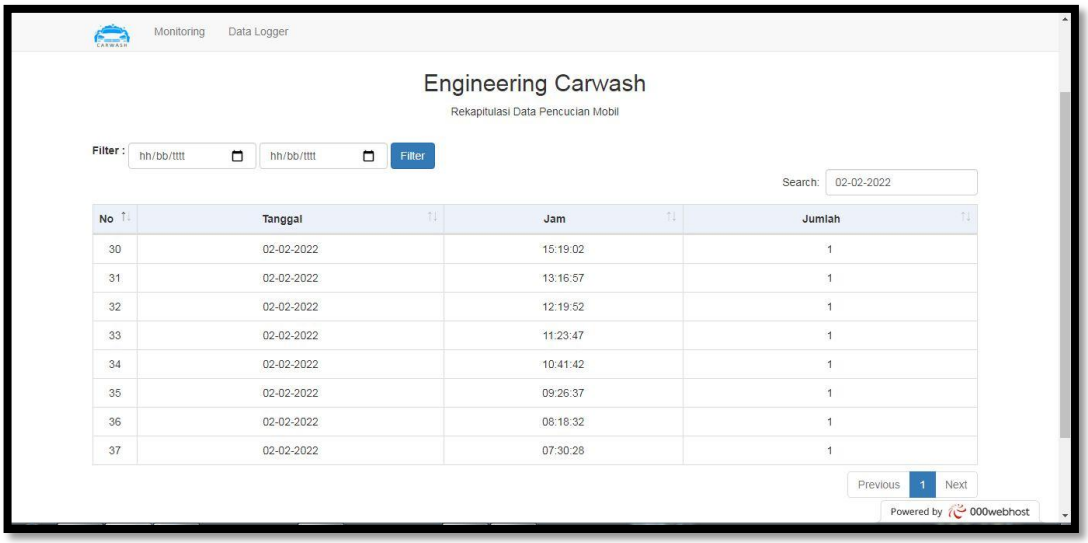

Monitoring
Data Logger
Engineering Carwash
Rekapitulasi Data Pencucian Mobil
Filter :
hh/bb/tttt
hh/bb/tttt
Filter
Search: 28-01
No
Tanggal
Jam
Jumlah
66 28-01-2022 08:01:25 1
67 28-01-2022 13:36:01 1
68 28-01-2022 12:05:51 1
69 28-01-2022 09:01:25 1
70 28-01-2022 08:21:51 1
71 28-01-2022 15:36:53 1
Previous
1
Next
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Powered by 000webhost

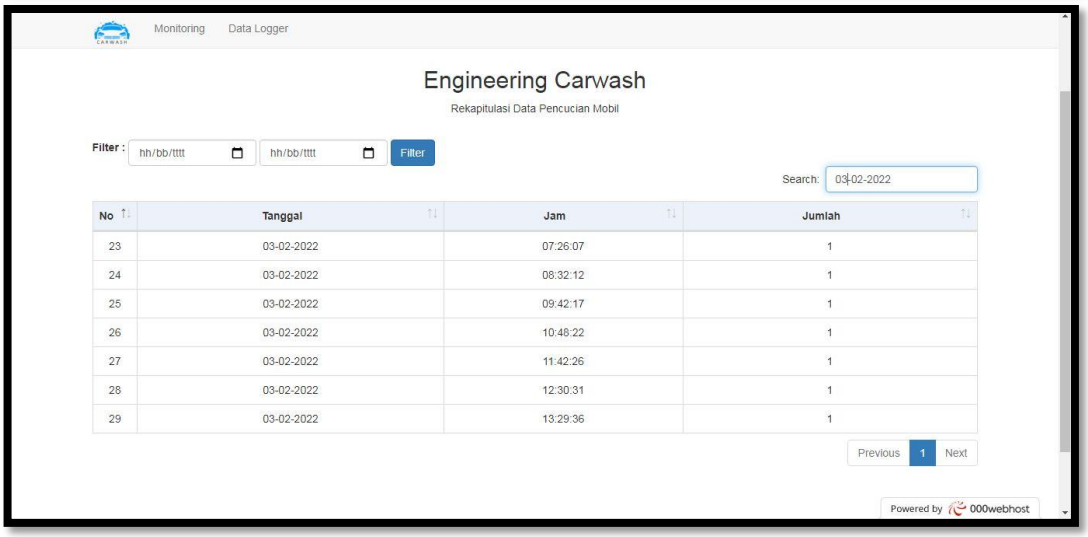

Monitoring
Data Logger
Filter :
hh/bb/tttt
hh/bb/tttt
Filter
Search: 29-01
No
Tanggal
Jam
Jumlah
56 29-01-2022 07:37:48 1
57 29-01-2022 08:27:04 1
58 29-01-2022 09:31:12 1
59 29-01-2022 10:38:20 1
60 29-01-2022 12:20:29 1
61 29-01-2022 13:38:34 1
62 29-01-2022 11:44:24 1
63 29-01-2022 16:48:49 1
64 29-01-2022 15:38:44 1
65 29-01-2022 14:19:39 1
Previous
1
Next

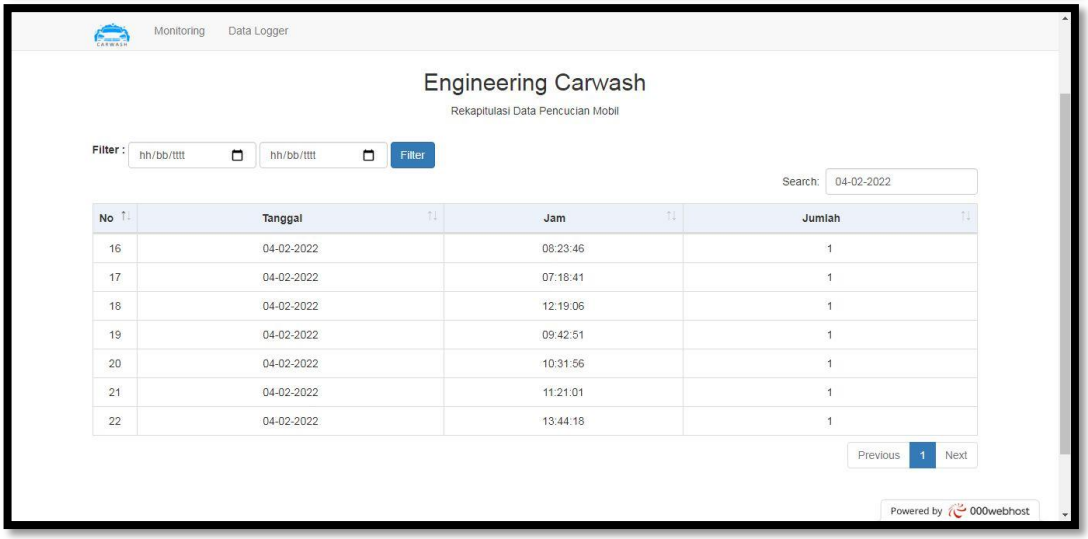

Monitoring
Data Logger
Filter :
hh/bb/tttt
hh/bb/tttt
Filter
Search:
30-01
No
Tanggal
Jam
Jumlah
46 30-01-2022 08:21:42 1
47 30-01-2022 09:32:21 1
48 30-01-2022 11:30:24 1
49 30-01-2022 10:23:14 1
50 30-01-2022 12:42:32 1
51 30-01-2022 13:24:35 1
52 30-01-2022 07:28:35 1
53 30-01-2022 16:39:38 1
54 30-01-2022 14:20:33 1
55 30-01-2022 14:23:28 1
Previous
1
Next
Powered by 000webhost

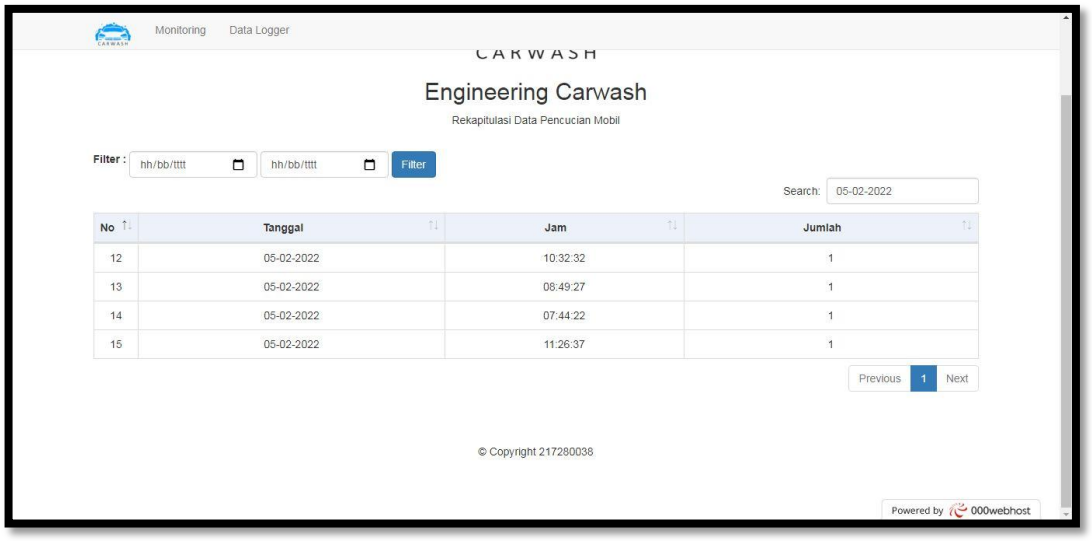

Monitoring
Data Logger
CARWASH
Engineering Carwash
Rekapitulasi Data Pencucian Mobil
Filter :
hh/bb/tttt
hh/bb/tttt
Filter
Search:
31-01
No
Tanggal
Jam
Jumlah
43 31-01-2022 08:24:26 1
44 31-01-2022 10:46:48 1
45 31-01-2022 11:40:59 1
Previous
1
Next
© Copyright 217280038
Powered by 000webhost

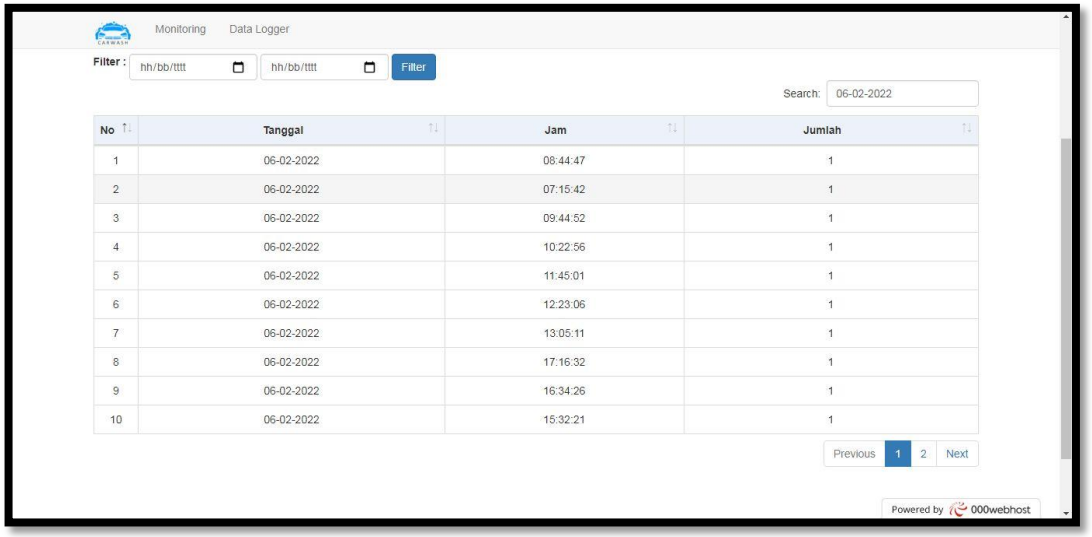

Monitoring
Data Logger
CARWASH
Engineering Carwash
Rekapitulasi Data Pencucian Mobil
Filter :
hh/bb/tttt
hh/bb/tttt
Filter
Search:
01-02
No
Tanggal
Jam
Jumlah
38 01-02-2022 12:41:23 1
39 01-02-2022 12:41:18 1
40 01-02-2022 11:27:13 1
41 01-02-2022 10:26:08 1
42 01-02-2022 08:29:03 1
Previous
1
Next
Powered by 000webhost


Monitoring
Data Logger
Engineering Carwash
Rekapitulasi Data Pencucian Mobil
Filter :
hh/bb/tttt
hh/bb/tttt
Filter
Search: 02-02-2022
No
Tanggal
Jam
Jumlah
30 02-02-2022 15:19:02 1
31 02-02-2022 13:16:57 1
32 02-02-2022 12:19:52 1
33 02-02-2022 11:23:47 1
34 02-02-2022 10:41:42 1
35 02-02-2022 09:26:37 1
36 02-02-2022 08:18:32 1
37 02-02-2022 07:30:28 1
Previous
1
Next
Powered by 000webhost


Monitoring
Data Logger
Engineering Carwash
Rekapitulasi Data Pencucian Mobil
Filter :
hh/bb/tttt
hh/bb/tttt
Filter
Search: 03-02-2022
No
Tanggal
Jam
Jumlah
23 03-02-2022 07:26:07 1
24 03-02-2022 08:32:12 1
25 03-02-2022 09:42:17 1
26 03-02-2022 10:48:22 1
27 03-02-2022 11:42:26 1
28 03-02-2022 12:30:31 1
29 03-02-2022 13:29:36 1
Previous
1
Next
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Monitoring
Data Logger
Engineering Carwash
Rekapitulasi Data Pencucian Mobil
Filter :
hh/bb/tttt
hh/bb/tttt
Filter
Search: 04-02-2022
No
Tanggal
Jam
Jumlah
16 04-02-2022 08:23:46 1
17 04-02-2022 07:18:41 1
18 04-02-2022 12:19:06 1
19 04-02-2022 09:42:51 1
20 04-02-2022 10:31:56 1
21 04-02-2022 11:21:01 1
22 04-02-2022 13:44:18 1
Previous
1
Next
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Monitoring
Data Logger
CARWASH
Engineering Carwash
Rekapitulasi Data Pencucian Mobil
Filter :
hh/bb/tttt
hh/bb/tttt
Filter
Search: 05-02-2022
No
Tanggal
Jam
Jumlah
12 05-02-2022 10:32:32 1
13 05-02-2022 08:49:27 1
14 05-02-2022 07:44:22 1
15 05-02-2022 11:26:37 1
Previous 1 Next
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Monitoring
Data Logger
Filter :
hh/bb/tttt
hh/bb/tttt
Filter
Search: 06-02-2022
No
Tanggal
Jam
Jumlah
1 06-02-2022 08:44:47 1
2 06-02-2022 07:15:42 1
3 06-02-2022 09:44:52 1
4 06-02-2022 10:22:56 1
5 06-02-2022 11:45:01 1
6 06-02-2022 12:23:06 1
7 06-02-2022 13:05:11 1
8 06-02-2022 17:16:32 1
9 06-02-2022 16:34:26 1
10 06-02-2022 15:32:21 1
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