

**NAMA : RIFKI MAULANA**

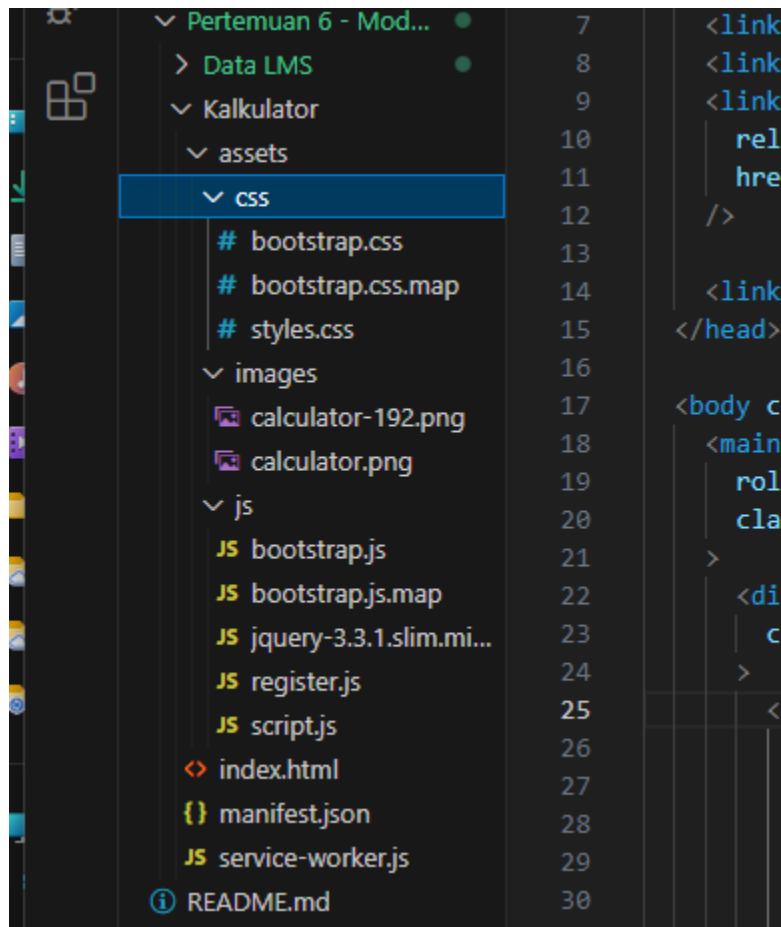
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**MP. PENGEMBANGAN APLIKASI PLATFORM KHUSUS | HASIL PEMBELAJARAN**

**MODUL 6 PERTEMUAN 6**

1. Membuat directory baru Kalkulator



2. Code index.html

```
3. <!DOCTYPE html>
4. <html lang="en">
5.   <head>
6.     <meta charset="UTF-8" />
7.     <meta name="viewport" content="width=device-width, initial-
8.       scale=1.0" />
9.     <title>App Kalkulator Sederhana</title>
```

```

9.     <link rel="stylesheet" type="text/css"
      href="assets/css/bootstrap.css" />
10.    <link rel="stylesheet" type="text/css" href="assets/css/styles.css"
      />
11.    <link
12.        rel="stylesheet"
13.        href="https://fonts.googleapis.com/css?family=Open+Sans:600,700"
14.    />
15.
16.    <link rel="manifest" href="manifest.json" />
17. </head>
18.
19. <body class="align-items-start pt-0 flex-column">
20.     <main
21.         role="main"
22.         class="container-fluid col-xl-4 col-lg-4 col-md-6 col-sm-12 col-
23.             12 pt-0 pl-0 pr-0"
24.     >
25.         <div
26.             class="container-user d-flex flex-row justify-content-between
27.                 px-3 py-4"
28.         >
29.             <div class="content-text flex-xcolumn w-100">
30.                 <p class="bodytext2 color-black500 p-0 m-0" id="dataName">
31.                     Selamat Datang
32.                 </p>
33.                 <p class="headline6 color-black500 semibold p-0 m-0">
34.                     App Kalkulator Sederhana
35.                 </p>
36.             </div>
37.             <a class="content-image-profile flex-shrink" href="profile">
38.                 <div class="frame-image">
39.                     
45.                 </div>
46.             </a>
47.         </div>
48.         <div id="calculator">
49.             <div id="result">

```

```

50.     <div id="history">
51.         <p id="history-value"></p>
52.     </div>
53.     <div id="output">
54.         <p id="output-values"></p>
55.     </div>
56. </div>
57.
58. <div class="container-fluid">
59.     <div class="row mb-3">
60.         <div class="col-3 col-xs-3">
61.             <button
62.                 class="btn btn-danger btn-circle btn-xl operator"
63.                 id="clear"
64.             >
65.                 C
66.             </button>
67.         </div>
68.         <div class="col-3 col-xs-3">
69.             <button
70.                 class="btn btn-danger btn-circle btn-xl operator"
71.                 id="backspace"
72.             >
73.                 CE
74.             </button>
75.         </div>
76.         <div class="col-3 col-xs-3">
77.             <button
78.                 class="btn btn-dark btn-circle btn-xl operator"
79.                 id="percent"
80.             >
81.                 %
82.             </button>
83.         </div>
84.         <div class="col-3 col-xs-3">
85.             <button
86.                 class="btn btn-dark btn-circle btn-xl operator"
87.                 id="divide"
88.             >
89.                 /
90.             </button>
91.         </div>
92.     </div>
93.     <div class="row mb-3">
94.         <div class="col-3 col-xs-3">

```

```

95.         <button class="btn btn-gray btn-circle btn-xl number"
    id="7">
96.             7
97.         </button>
98.     </div>
99.     <div class="col-3 col-xs-3">
100.         <button class="btn btn-gray btn-circle btn-xl number"
    id="8">
101.             8
102.         </button>
103.     </div>
104.     <div class="col-3 col-xs-3">
105.         <button class="btn btn-gray btn-circle btn-xl number"
    id="9">
106.             9
107.         </button>
108.     </div>
109.     <div class="col-3 col-xs-3">
110.         <button class="btn btn-dark btn-circle btn-xl
    operator" id="*">
111.             &times;
112.         </button>
113.     </div>
114. </div>
115. <div class="row mb-3">
116.     <div class="col-3 col-xs-3">
117.         <button class="btn btn-gray btn-circle btn-xl number"
    id="4">
118.             4
119.         </button>
120.     </div>
121.     <div class="col-3 col-xs-3">
122.         <button class="btn btn-gray btn-circle btn-xl number"
    id="5">
123.             5
124.         </button>
125.     </div>
126.     <div class="col-3 col-xs-3">
127.         <button class="btn btn-gray btn-circle btn-xl number"
    id="6">
128.             6
129.         </button>
130.     </div>
131. </div>

```

```

132.         <button class="btn btn-dark btn-circle btn-xl
operator" id="-">
133.             -
134.         </button>
135.     </div>
136. </div>
137. <div class="row mb-3">
138.     <div class="col-3 col-xs-3">
139.         <button class="btn btn-gray btn-circle btn-xl number"
id="1">
140.             1
141.         </button>
142.     </div>
143.     <div class="col-3 col-xs-3">
144.         <button class="btn btn-gray btn-circle btn-xl number"
id="2">
145.             2
146.         </button>
147.     </div>
148.     <div class="col-3 col-xs-3">
149.         <button class="btn btn-gray btn-circle btn-xl number"
id="3">
150.             3
151.         </button>
152.     </div>
153.     <div class="col-3 col-xs-3">
154.         <button class="btn btn-dark btn-circle btn-xl
operator" id="+">
155.             +
156.         </button>
157.     </div>
158. </div>
159. <div class="row mb-3">
160.     <div class="col-3 col-xs-3">
161.         <button
162.             class="btn btn-gray btn-circle btn-xl empty"
163.             id="empty"
164.         ></button>
165.     </div>
166.     <div class="col-3 col-xs-3">
167.         <button class="btn btn-gray btn-circle btn-xl number"
id="0">
168.             0
169.         </button>
170.     </div>

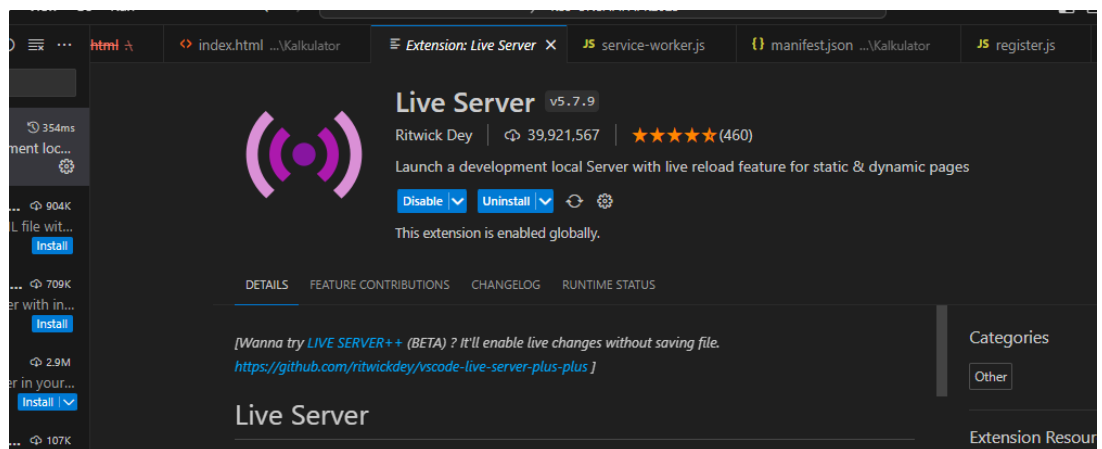
```

```

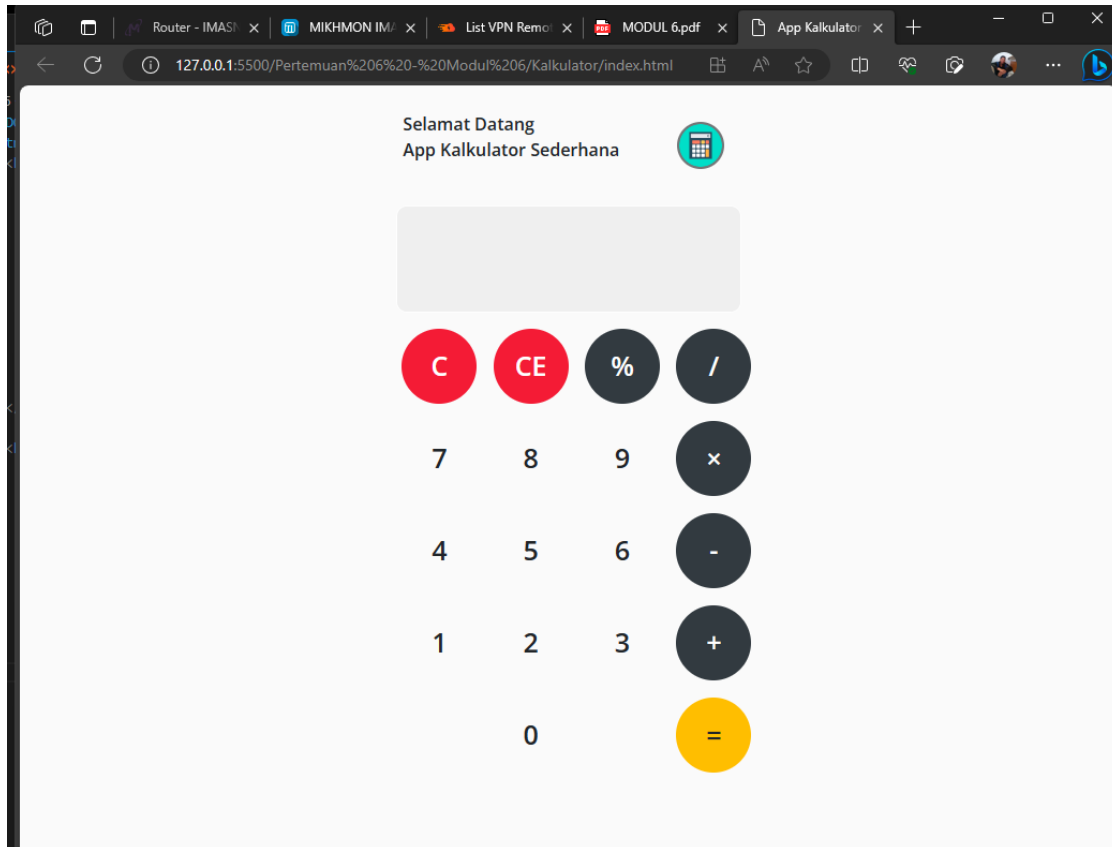
171.         <div class="col-3 col-xs-3">
172.             <button
173.                 class="btn btn-gray btn-circle btn-xl empty"
174.                 id="empty"
175.             ></button>
176.         </div>
177.         <div class="col-3 col-xs-3">
178.             <button class="btn btn-warning btn-circle btn-xl
operator" id="=">
179.                 =
180.             </button>
181.         </div>
182.     </div>
183. </div>
184. </div>
185. </main>
186.
187. <script src="assets/js/jquery-3.3.1.slim.min.js"></script>
188. <script src="assets/js/bootstrap.js"></script>
189. <script src="assets/js/script.js"></script>
190. <script src="assets/js/register.js"></script>
191. </body>
192. </html>
193.

```

## 2. Install live server pada VS CODE



### 3. Tampilan index.html didalam menggunakan url live server



### 4. Code js/script.js

```
5. function getHistory() {  
6.   return document.getElementById("history-value").innerText;  
7. }  
8.  
9. function printHistory(num) {  
10.  document.getElementById("history-value").innerText = num;  
11. }  
12.  
13. function getOutput() {  
14.  return document.getElementById("output-values").innerText;  
15. }  
16.  
17. function printOutput(num) {  
18.  if (num == "") {  
19.    document.getElementById("output-values").innerText = num;
```

```

20. } else {
21.     document.getElementById("output-values").innerText =
22.         getFormattedNumber(num);
23. }
24.}
25.
26.function getFormattedNumber(num) {
27.    if (num == "-") {
28.        return "";
29.    }
30.    var n = Number(num);
31.    var value = n.toLocaleString("en");
32.    return value;
33.}
34.
35.function reverseNumberFormat(num) {
36.    return Number(num.replace(/,/g, ""));
37.}
38.
39.var operator = document.getElementsByClassName("operator");
40.for (var i = 0; i < operator.length; i++) {
41.    operator[i].addEventListener("click", function () {
42.        if (this.id == "clear") {
43.            printHistory("");
44.            printOutput("");
45.        } else if (this.id == "backspace") {
46.            var output = reverseNumberFormat(getOutput()).toString();
47.            if (output) {
48.                //if output has a value
49.                output = output.substr(0, output.length - 1);
50.                printOutput(output);
51.            }
52.        } else {
53.            var output = getOutput();
54.            var history = getHistory();
55.            if (output == "" && history != "") {
56.                if (isNaN(history[history.length - 1])) {
57.                    history = history.substr(0, history.length - 1);
58.                }
59.            }
60.            if (output != "" || history != "") {
61.                output = output == "" ? output : reverseNumberFormat(output);
62.                history = history + output;
63.                if (this.id == "=") {
64.                    var result = eval(history);

```



```

65.         printOutput(result);
66.         printHistory("");
67.     } else {
68.         history = history + this.id;
69.         printHistory(history);
70.         printOutput("");
71.     }
72. }
73. }
74. });
75. }
76.
77. var number = document.getElementsByClassName("number");
78. for (var i = 0; i < number.length; i++) {
79.     number[i].addEventListener("click", function () {
80.         var output = reverseNumberFormat(getOutput());
81.         if (output !== NaN) {
82.             output = output + this.id;
83.             printOutput(output);
84.         }
85.     });
86. }
87.

```

##### 5. code js/register.js

```

document.addEventListener("DOMContentLoaded", init, false);

function init() {
    if ("serviceWorker" in navigator && navigator.onLine) {
        navigator.serviceWorker.register("/service-worker.js").then(
            (reg) => {
                console.log("Registrasi service worker Berhasil", reg);
            },
            (err) => {
                console.error("Registrasi service worker Gagal", err);
            }
        );
    }
}

```

#### 6. Menyisipkan js/script.js dan js/register.html pada index.html

```
# bootstrap.css.map 185 <script src="assets/js/jquery-3.3.1.slim.min.js"></script>
# styles.css 186 <script src="assets/js/bootstrap.js"></script>
v images 187 <script src="assets/js/script.js"></script>
  calculator-192.png 188 <script src="assets/js/register.js"></script>
  calculator.png 189 </body>
v js 190 </html>
  JS bootstrap.js 191
  JS bootstrap.js.map
  JS jquery-3.3.1.slim.mi...
  JS register.js
```

#### 7. Membuat Manifest.json dan service-worker.js didalam directory: root atau /kalkulator

```
<> index.html
{} manifest.json
JS service-worker.js
```

#### 8. Code manifest.json

```
Pertemuan 6 - Modul 6 > Kalkulator > {} manifest.json > ...
1 {
2   "name": "App Kalkulator sederhana",
3   "short_name": "kalkulator",
4   "description": "Membuat Aplikasi Kalkulator sederhana dengan javascript PWA",
5   "icons": [
6     {
7       "src": "assets/images/calculator.png",
8       "sizes": "512x512",
9       "type": "image/png"
10    },
11    {
12      "src": "assets/images/calculator-192.png",
13      "sizes": "192x192",
14      "type": "image/png"
15    }
16  ],
17  "start_url": "/",
18  "display": "standalone",
19  "theme_color": "#1F3641",
20  "background_color": "#ffffff",
21  "prefer_related_applications": false
22 }
23
```

#### 9. Code service-worker.html

```
const CACHE_NAME = "SW-001";
const toCache = [
  "/",
  "manifest.json",
```

```

    "assets/js/register.js",
    "assets/img/icon.png",
  ];

  let deferredPrompt;

  self.addEventListener("beforeinstallprompt", (e) => {
    e.preventDefault();
    deferredPrompt = e;

    showInstallPromotion();
  });

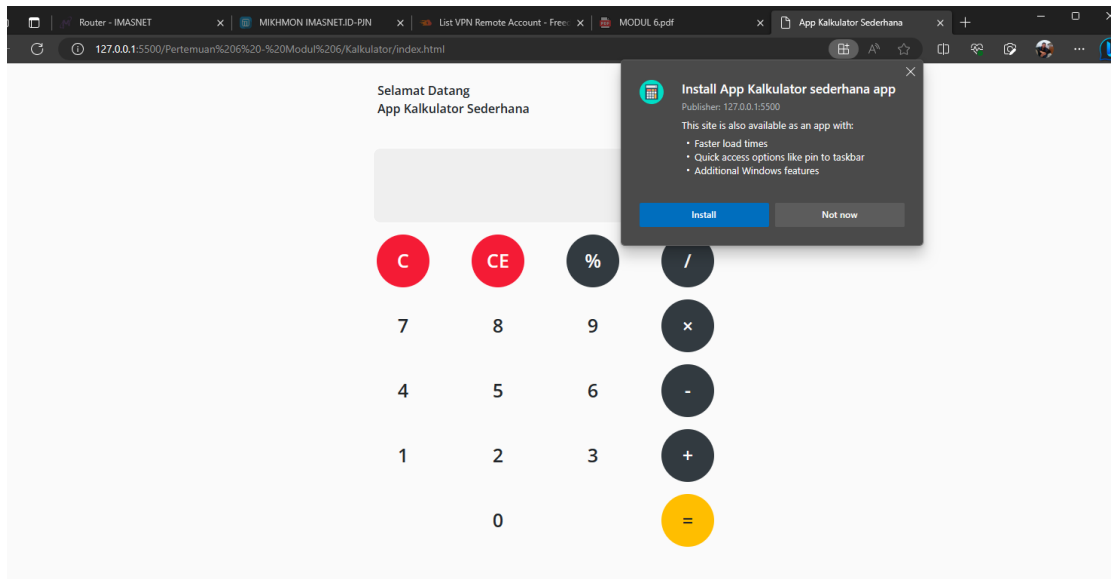
  self.addEventListener("install", function (event) {
    event.waitUntil(
      caches.open(CACHE_NAME).then(function (cache) {
        return cache.addAll(toCache);
      })
    );
  });

  self.addEventListener("fetch", function (event) {
    event.respondWith(
      fetch(event.request).catch(() => {
        return caches.open(CACHE_NAME).then((cache) => {
          return cache.match(event.request);
        });
      })
    );
  });

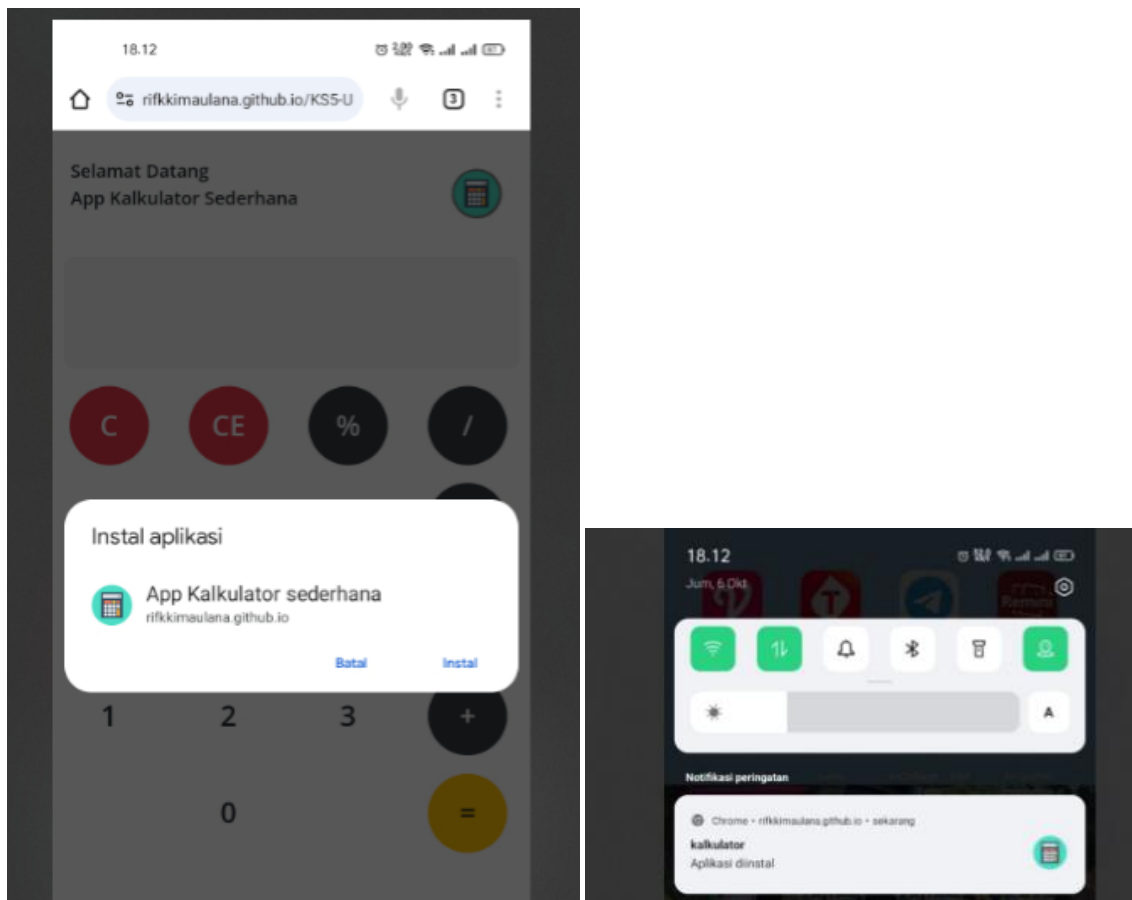
  self.addEventListener("activate", function (event) {
    event.waitUntil(
      caches.keys().then((keyList) => {
        return Promise.all(
          keyList.map((key) => {
            if (key !== CACHE_NAME) {
              console.log("[ServiceWorker] Hapus cache lama", key);
              return caches.delete(key);
            }
          })
        );
      })
    );
  });
}

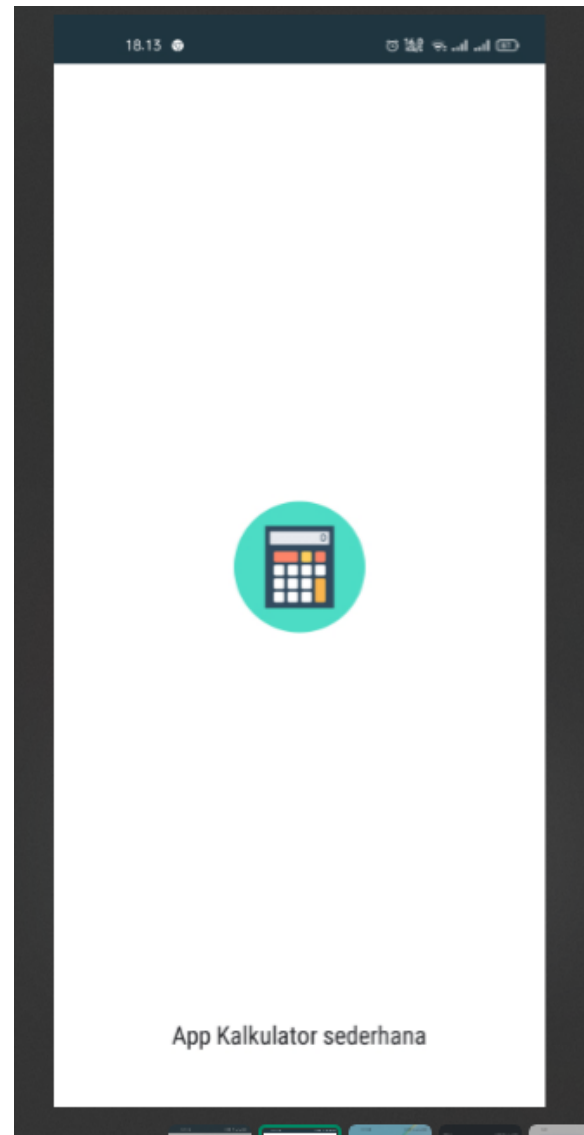
```

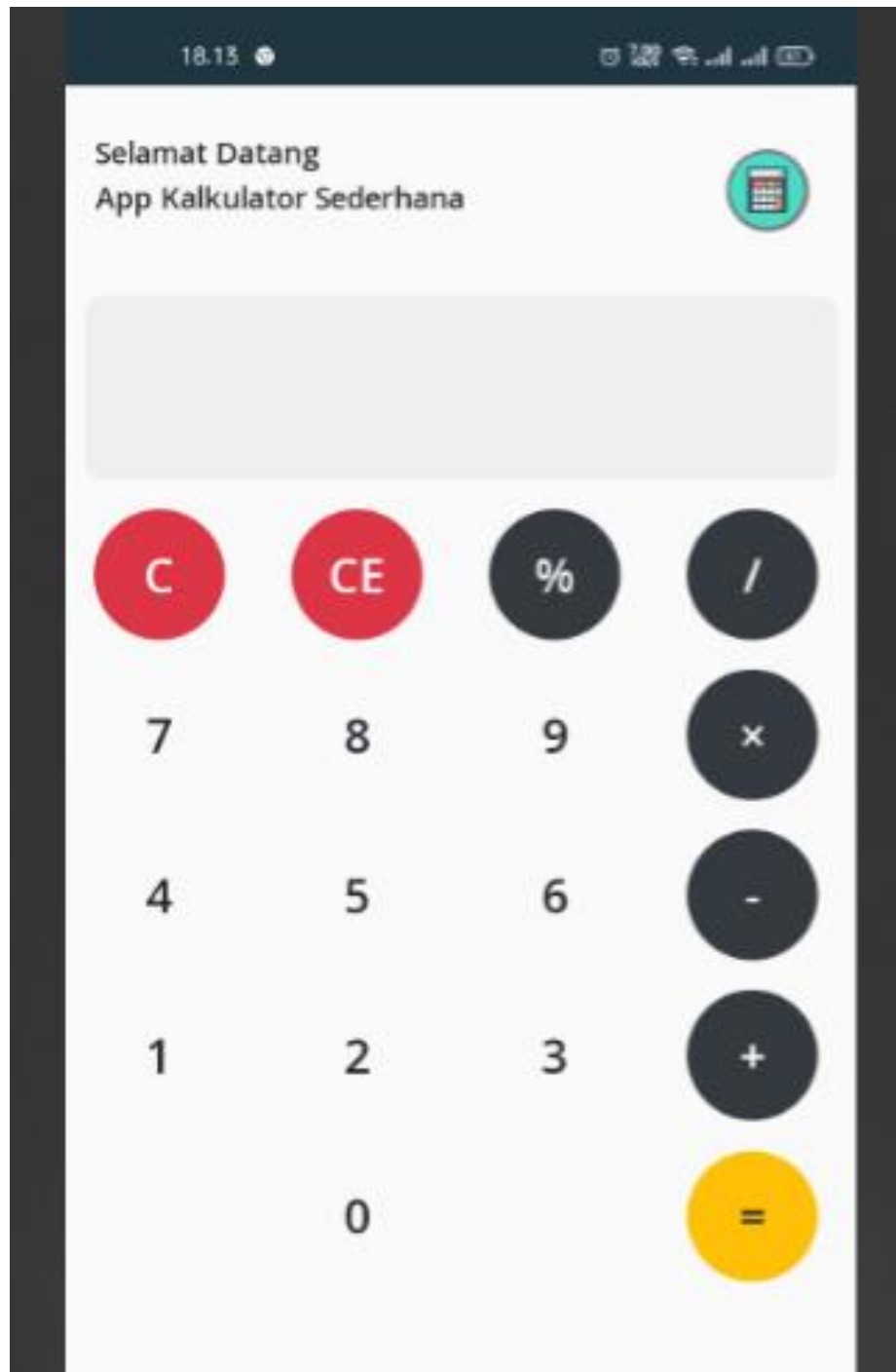
10. Langkah terakhir adalah menjalankan kembali program dengan live server



11. Uci coba menjalankan program melalui smartphone







TERIMAKASIH