

SRM Institute of Science & Technology

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MODEL INTERNAL PRACTICE

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EXAMINER1

EXAMINER2

Experiment 1: Design the Web pages using Cascading Style Sheet.

Aim:- Design & Create a Calculator Web page using HTML, Cascading Style Sheet(CSS) & JavaScript.

Technology & Software :-

- HTML :- For structure.
- CSS :- For Style.
- JavaScript :- For make it Work.
- Code Pen :- As a software platform in where write and run our code.

Algorithm Description:-

1. Start and Go to Code Pen.
2. we are going to create a calculator. We need to create a basic structure using HTML, style it using CSS and make it work using JavaScript.
3. I created the div (.box) which represent the structure of calculator. Inside it, I created two div tags, one for display (inside this, I added input type="text" to display the result and set this to read only) and one for Keys.
4. I set background color for body and set the height, width and border radius of class box (.box).
5. I set .display background-color, width, height and position. Inside it, we have an input box, I also adjust its height, width, color, background-color and position.
6. I adjust position of div (.keys). I use Double Class Selector(example: class=button gray). By the use of this, I set .button width, height, border-radius, cursor, etc. This helps me in making all my buttons of the same width, height, etc. Then I set .button.gray color, background-color, etc.
7. After that, I create :active (The :active pseudo selector will match when an element is being pressed down on by the mouse Cursor.) for buttons. The thing

I have done here is to change the top border color to black and bottom color to same as button color. This gives button feel of pressing down.

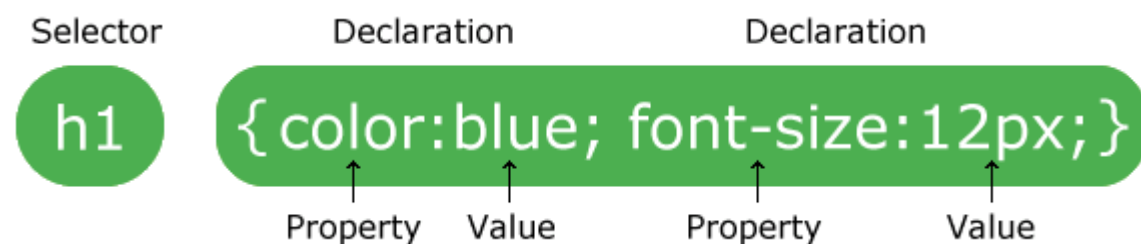
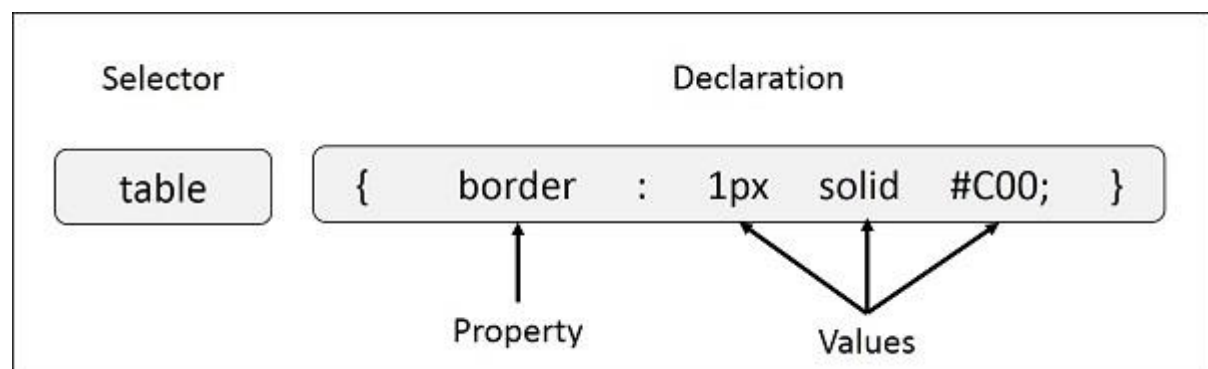
8. we have created a Calculator but it does not work. Now we have to do scripting for it (using JavaScript).

9. I have created three functions. Function `c(val)` is used for clearing the data from the display. When we click on "C" button, then `onclick='c("")'` event runs and searches for `c(val)` function and displays the value according to the parameter passed inside it (here, we have not passed any parameter so the input screen appears blank or clear).

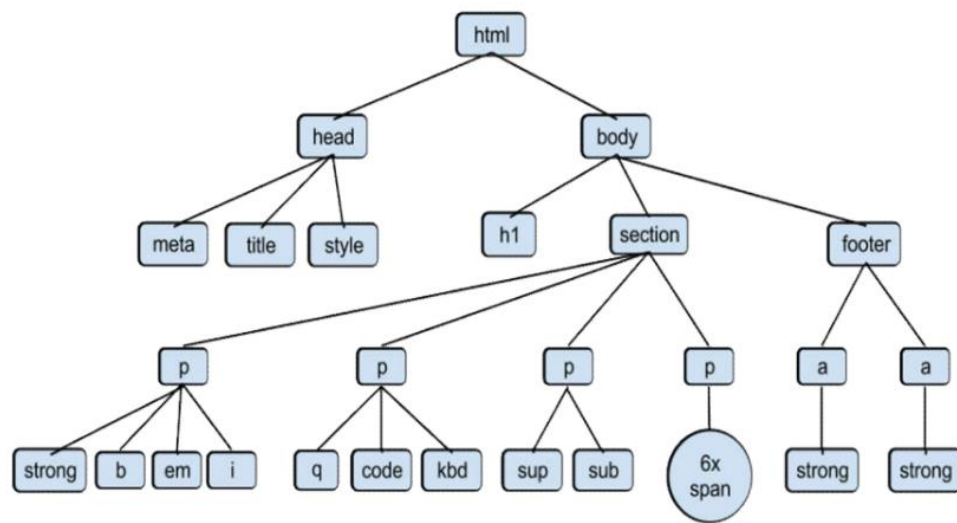
10. Function `v(val)` is used for typing numbers as well as mathematical operators.

11. Function `e()` is used for evaluating, i.e., on clicking "=" button, value inside the `Id="d"` is solved.

CSS TAG STRUCTURE:-



HTML TAG STRUCTURE:-



Program Code:-

HTML:-

<div class="box">

<div class="display"><input type="text" readonly size="18" id="d"></div>

<div class="keys">

<p><input type="button" class="button gray"

value="mrc" onclick='c("Created.....")'>

<input type="button" class="button gray"

value="m-" onclick='c(".....by.....")'>

<input type="button" class="button gray" value="

m+" onclick='c(".....Anoop")'>

<input type="button" class="button pink"

value="/" onclick='v("/")'></p>

<p><input type="button" class="button black"

value="7" onclick='v("7")'><input type="button"

class="button black" value="8" onclick='v("8")'>

<input type="button" class="button black" value="9"

onclick='v("9")'><input type="button"

class="button pink" value="*" onclick='v("*')'></p>

<p><input type="button" class="button black"

value="4" onclick='v("4")'><input type="button"

class="button black" value="5" onclick='v("5")'>

<input type="button" class="button black" value="6"

onclick='v("6")'><input type="button"

class="button pink" value="-" onclick='v("-")'></p>

<p><input type="button" class="button black"

value="1" onclick='v("1")'><input type="button"

class="button black" value="2" onclick='v("2")'>

```
<input type="button" class="button black" value="3"
```

```
onclick='v("3")'><input type="button"
```

```
class="button pink" value="+" onclick='v("+")'></p>
```

```
<p><input type="button" class="button black"
```

```
value="0" onclick='v("0")'><input type="button"
```

```
class="button black" value="." onclick='v(".")'>
```

```
<input type="button" class="button black" value="C"
```

```
onclick='c("")'><input type="button"
```

```
class="button orange" value="=" onclick='e()'></p>
```

```
</div>
```

```
</div>
```

CSS:-

```
body
```

```
{
```

```
background-color:tan;
```

```
}
```

```
.box
```

```
{  
background-color:#3d4543;  
height:300px;  
width:260px;  
border-radius:10px;  
position:relative;  
top:80px;  
left:40%;  
}
```

```
.display  
{  
background-color:#222;  
width:240px;  
position:relative;  
left:12px;  
top:20px;  
height:40px;  
}
```

```
.display input  
{  
position:relative;  
left:2px;  
top:2px;  
height:35px;  
color:black;
```

```
background-color:#bccd95;
font-size:21px;
text-align:right;
}
.keys
{
position:relative;
top:15px;
}
.button
{
width:40px;
height:30px;
border:none;
border-radius:8px;
margin-left:17px;
cursor:pointer;
border-top:2px solid transparent;
}
.button.gray
{
color:pink;
background-color:#6f6f6f;
border-bottom:black 2px solid;
border-top:2px #6f6f6f solid;
}
```



```
.button.pink
{
color:black;
background-color:#ff4561;
border-bottom:black 2px solid;
}

.button.black
{
color:darkblue;
background-color:303030;
border-bottom:black 2px solid;
border-top:2px 303030 solid;
}

.button.orange
{
color:black;
background-color:FF9933;
border-bottom:black 2px solid;
border-top:2px FF9933 solid;
}

.gray:active
{
border-top:black 2px solid;
border-bottom:2px #6f6f6f solid;
}

.pink:active
```

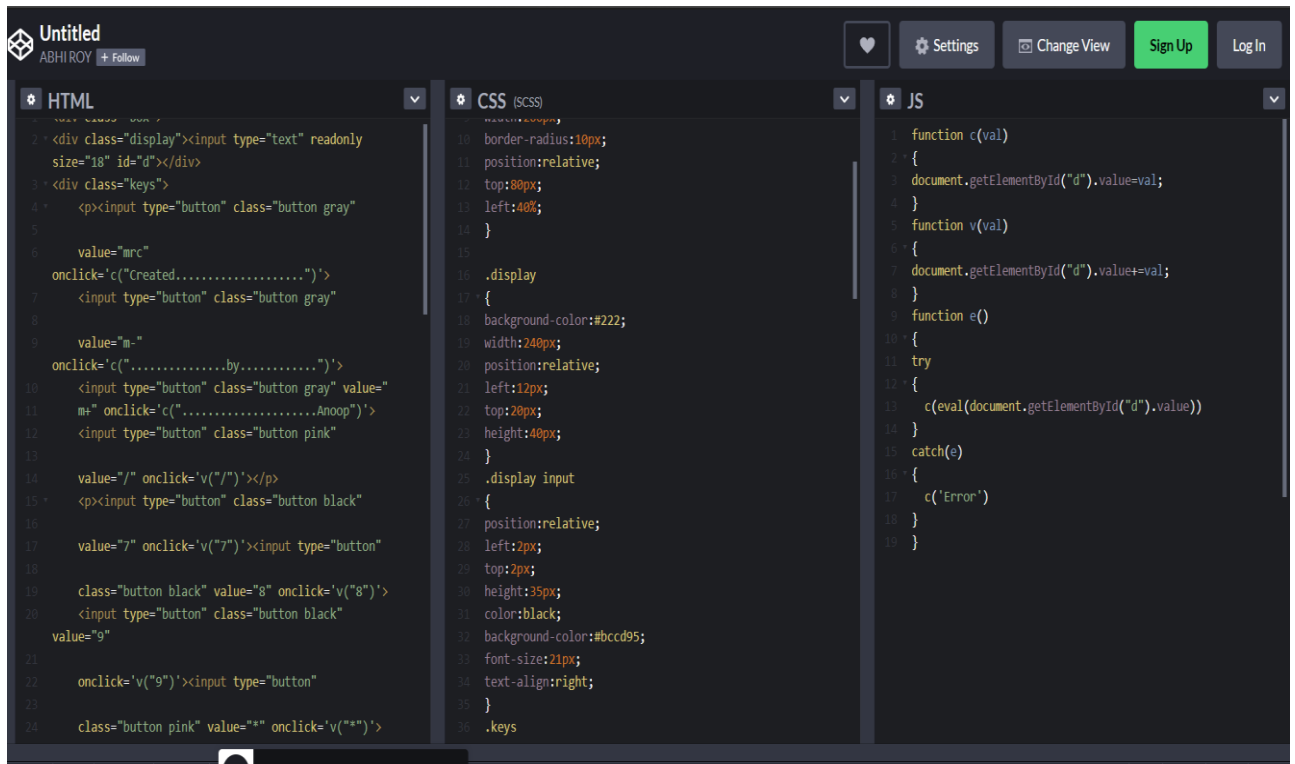
```
{
border-top:black 2px solid;
border-bottom:#ff4561 2px solid;
}
.black:active
{
border-top:black 2px solid;
border-bottom:#303030 2px solid;
}
.orange:active
{
border-top:black 2px solid;
border-bottom:FF9933 2px solid;
}
p
{
line-height:10px;
}
```

JavaScript:-

```
function c(val)
{
document.getElementById("d").value=val;
}
```

```
function v(val)
{
document.getElementById("d").value+=val;
}
function e()
{
try
{
c(eval(document.getElementById("d").value))
}
catch(e)
{
c('Error')
}
}
```

Program Code Screenshots:-



The screenshot shows a code editor with three panels: HTML, CSS (SCSS), and JS. The HTML panel contains the structure of a calculator with a display and several buttons. The CSS panel defines the styling for these elements. The JS panel contains the logic for the calculator's operations.

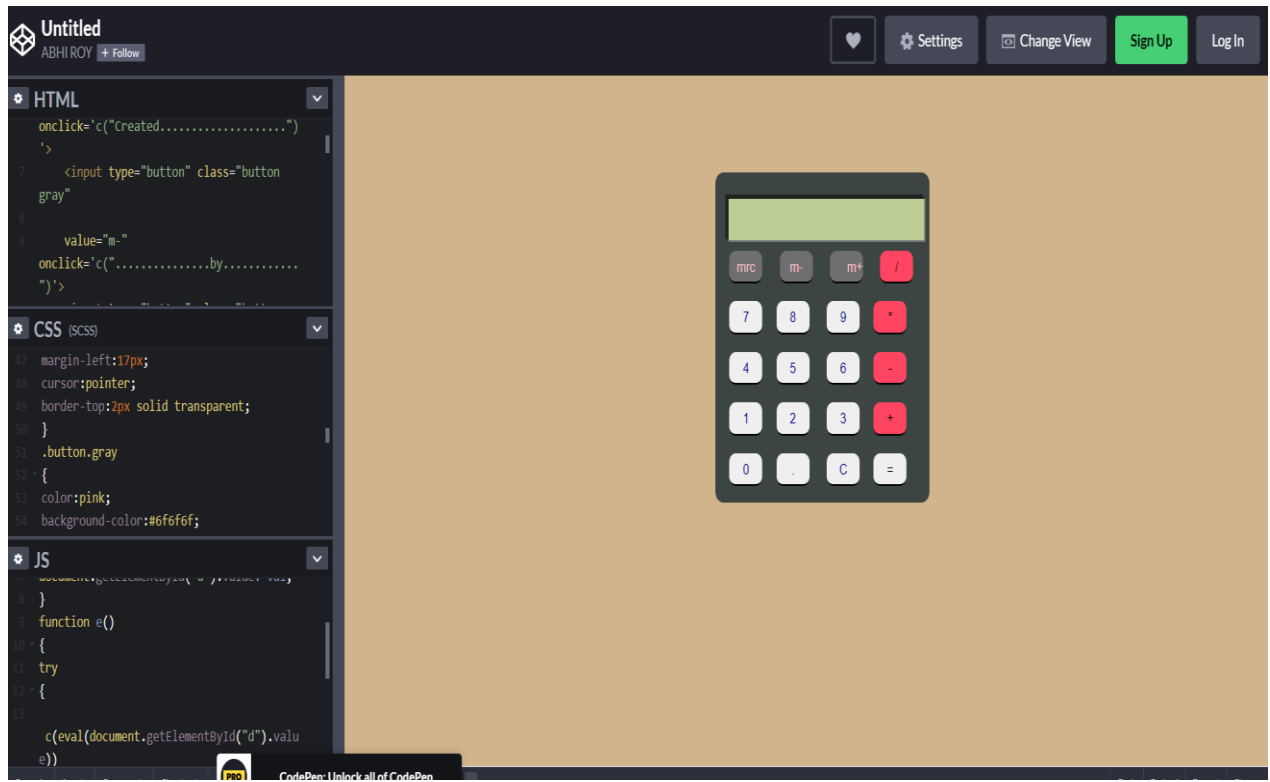
```
HTML
1 <div class="display"><input type="text" readonly
2 size="18" id="d"></div>
3 <div class="keys">
4 <p><input type="button" class="button gray"
5
6 value="mc"
7 onclick='c("Created.....")'>
8 <input type="button" class="button gray"
9
10 value="m-"
11 onclick='c(".....by.....")'>
12 <input type="button" class="button gray" value="
13 m+" onclick='c(".....Anoop")'>
14 <input type="button" class="button pink"
15
16 value="/" onclick='v("/")'></p>
17 <p><input type="button" class="button black"
18
19 value="7" onclick='v("7")'><input type="button"
20
21 class="button black" value="8" onclick='v("8")'>
22 <input type="button" class="button black"
23
24 value="9"
25
26 onclick='v("9")'><input type="button"
27
28 class="button pink" value="*" onclick='v("*")'>
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CSS (SCSS)
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100

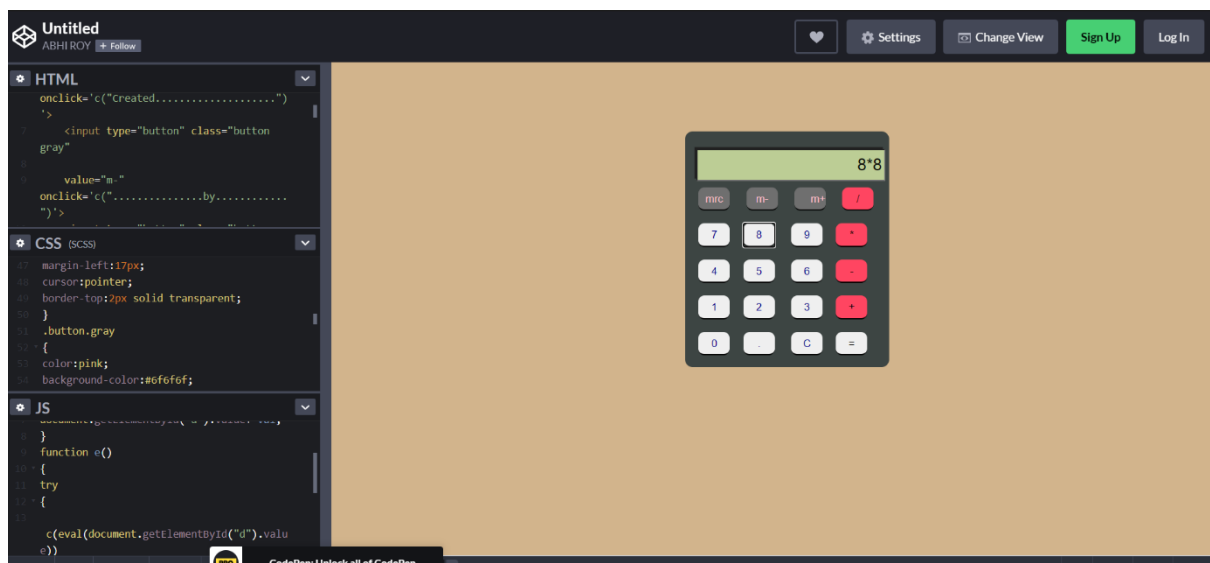
JS
1 function c(val)
2 {
3 document.getElementById("d").value=val;
4 }
5 function v(val)
6 {
7 document.getElementById("d").value+=val;
8 }
9 function e()
10 {
11 try
12 {
13 c(eval(document.getElementById("d").value))
14 }
15 catch(e)
16 {
17 c('Error')
18 }
19 }
```

Output Screenshots:-

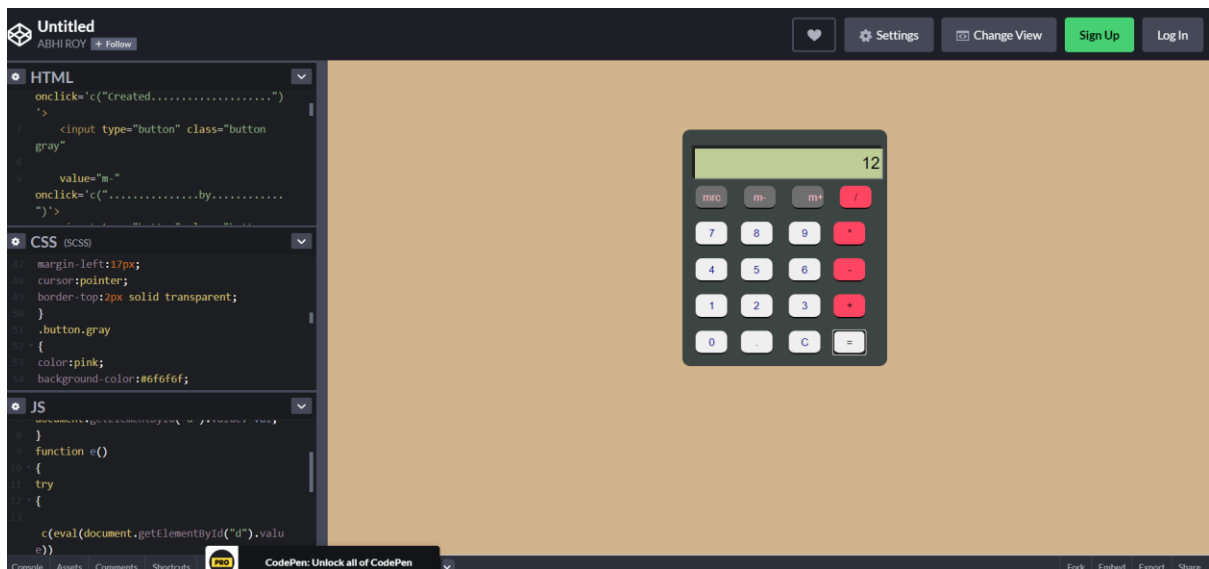
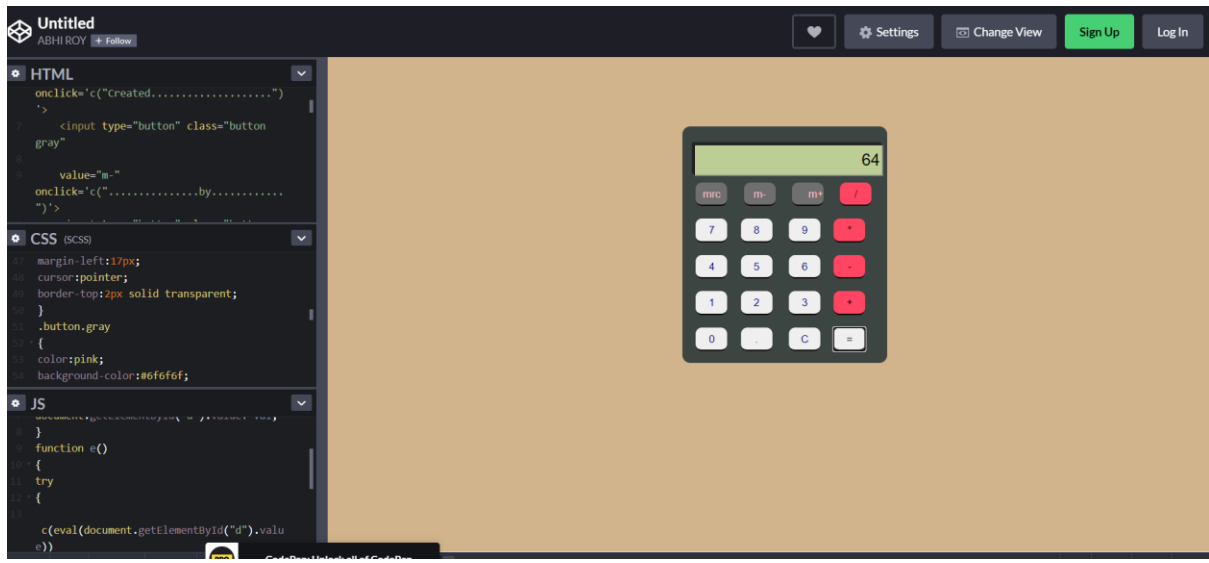
Different style using CSS:



Multiply by 8*8



Output:



Divide by 129/6:-



Output:



Output of m:-



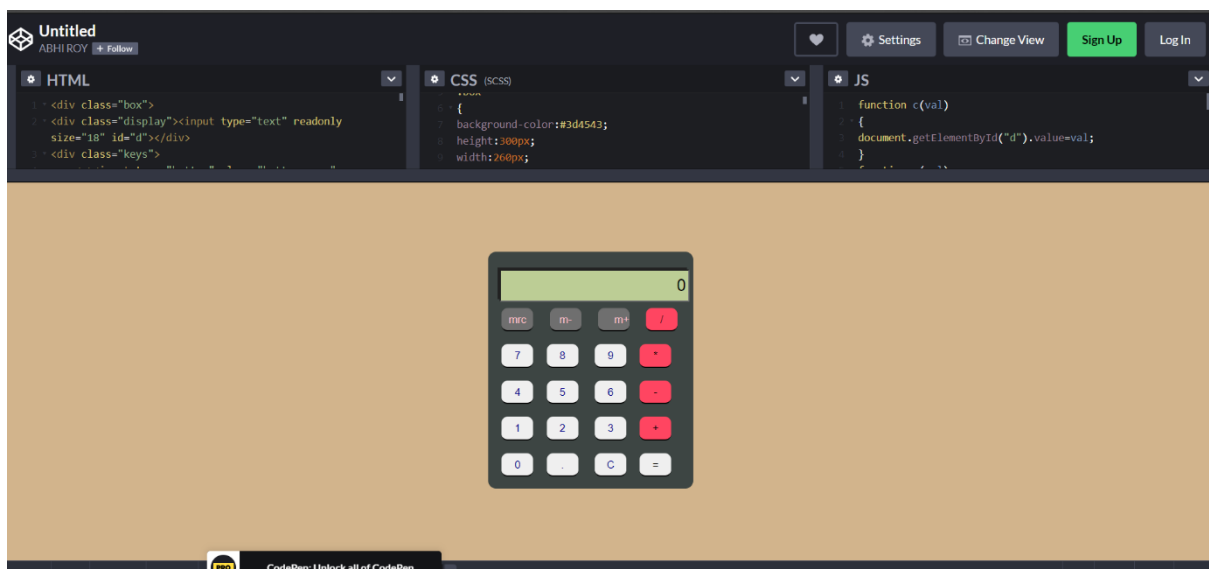
Sub of 65-32:



Output:



Different preview and style using css:



Project code & download link:-

Code Pen Link:- <https://codepen.io/abhi1214/pen/OJJgYgq>

<https://github.com/abhimanyu1214/A-Web-Page-of-Calculator-Using-HTML-CSS>

Result:- All Program are executed successfully & Output are display Correctly.