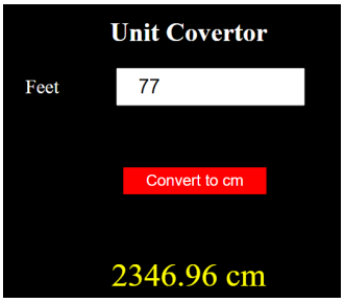
ASSIGNMENT : JAVASCRIPT MEGA ASSIGNMENT – 1 (FEET TO CM CONVERTER) | SUSHANT KUMAR | PH. NO. +91 9914207199 | sgbharat.joint@gmail.com

Problem statement:

With your knowledge gained on JavaScript concepts prepare a code to design a unit converter converting feet to cm producing the below output:



Solution:

Html Code:

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta http-equiv="X-UA-Compatible" content="IE=edge">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Unit Converter</title>
    <!-- css file -->
    <link rel="stylesheet" href="converter.css">
</head>
<body>
    <!-- main container -->
    <div class="container">
        <!-- Headings -->
        <h2>Unit Converter</h2>
        <h5>Enter Value in feet</h5>
        <!-- Converter form -->
        <form id="converter">
            <!-- feet input field -->
            <label for="feetval"><b>Feet</b></label>
            <input type="text" id="feetval" name="feetval">
            <!-- Converstion button -->
            <button id="btn" onclick="convert()">Convert to Centimetres</button>
        </form>
        <!-- Output div -->
        <div id="output">

        </div>
    </div>
    <!-- js file -->
    <script src="converter.js"></script>
</body>
</html>
```

JS Code:

```
//function to convert feet into cm

//adding event in the form and the function
document.getElementById("converter").addEventListener("submit", function(event){
    //to prevent default action of submit and to let output stay on screen
    event.preventDefault();
    //declaration and initiation of feet value and output value variables
    var feetVal = document.getElementById("feetval");
    var output = document.getElementById("output");
    //for converting string into float value
    feetVal = parseFloat(feetVal.value);
    //condition to check if value is not a number
    if(isNaN(feetVal)){
        output.textContent = "Enter a numerical value";
    }
    //condition to check if value is not a positive real number
    else if(feetVal <= 0){
        output.textContent = "Enter a real number (more than zero)";
    }
    //else condition to convert the value
    else{
        //conversion formula
        var centiVal = feetVal * 30.48;
        //to print the converted value
        output.textContent = "Centimetres: " + centiVal;
        //to clear form
        document.forms['converter'].reset()
    }

})
```

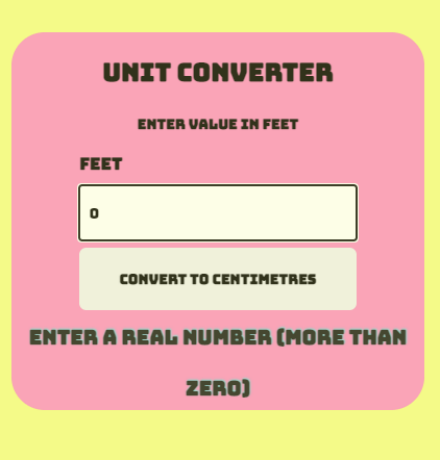
CSS Code:

```
/* google font */
@import url('https://fonts.googleapis.com/css2?family=Bungee&display=swap');
*{
    margin:0;
    padding: 0;
    box-sizing: border-box;
    font-family: 'Bungee', cursive;
}
body{
    background-color: rgb(244, 250, 136);
}
/* styling for main container div */
.container{
    display: flex;
    flex-direction: column;
    gap: 0.1em;
    margin: auto;
```

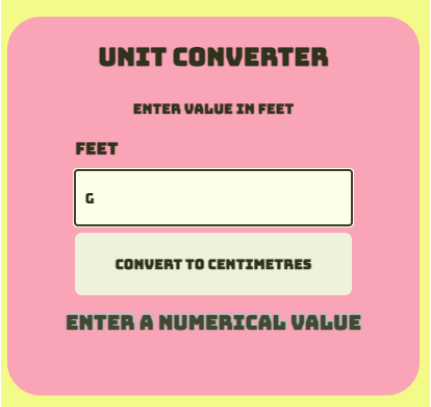
```
    width: 30%;
    margin-top: 2em;
    align-items: center;
    background-color: rgb(251, 142, 195);
    padding: 0.5em ;
    border-radius: 2em;
    height: 50vh;
    opacity: 0.8;
}
/* styling for converter form */
#converter{
    display: flex;
    flex-direction: column;
    width: 70%;
}
/* styling for feet field */
#feetval{
    padding: 0.7em;
    border-style: none;
}
/* styling for button */
#btn{
    margin-top: 0.5em;
    padding: 1em;
    border-radius: 0.5em;
    border-style: none;
    font-weight: bold;
}
/* styling for output */
#output{
    color: rgb(25, 26, 26);
    font-size: 1.2em;
    font-weight: bold;
    text-shadow: 0.7px -1.5px 2px rgb(120, 210, 220);
    text-align: center;
}
/* Styling effect */
#btn:hover{
    background-color: rgb(188, 232, 152);
}
/* Responsiveness styling */
@media only screen and (max-width:950px){
    .container{
        width: 80%;
        align-items: center;
        padding: 2em;
        height: 70vh;
    }
    #converter{
        width: 95%;
    }
    #output{
        margin-top: 0.6em;
        font-size: 1em;
```

```
        width: 100%;
    }
}
/* For galaxy fold device */
@media only screen and (max-width:290px){
    h2{
        font-size: 1em;
    }
    #output{
        font-size: 0.7em;
    }
}
/* for nest hub device */
@media only screen and (width:1024px){
    .container{
        height: 70vh;
        width: 50%;
    }
    #output{
        font-size: 1.5em;
    }
}
```

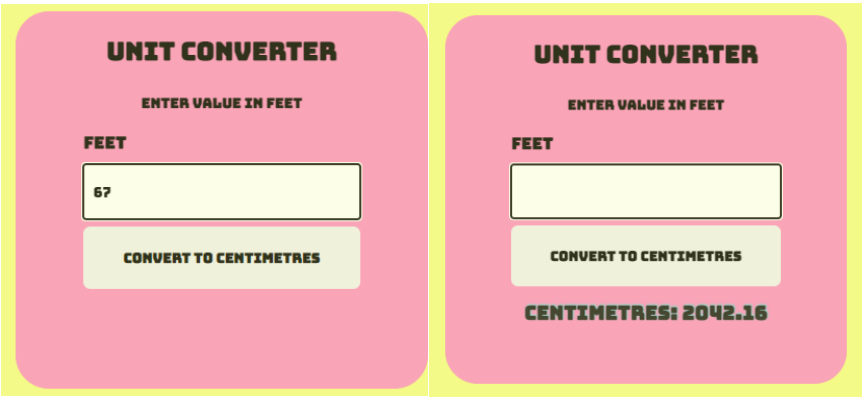
Output:



Checking for positive real number (value greater than 0)



Checking for numeral value (non-alphabetical or non-special characters)



Doing conversion of feet into Centimetres & Resetting the form