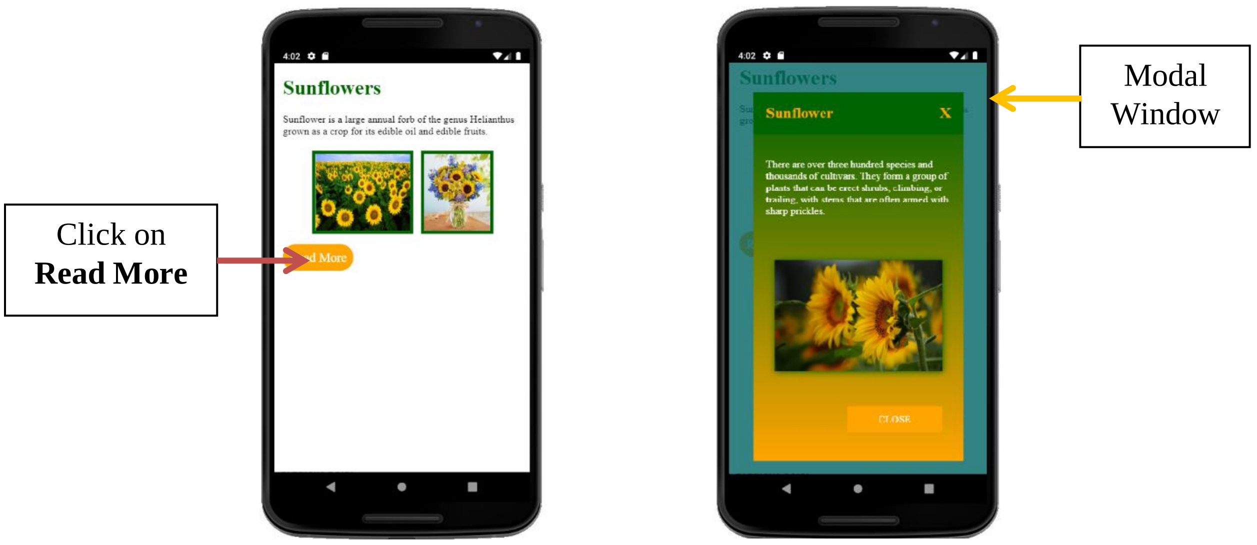
Chapter 7

Creating a Modal Window Using HTML and CSS

Modal windows are boxes that opens in front of the app. They are widely used for advertisements, promotion code, item description, login/register forms, etc.

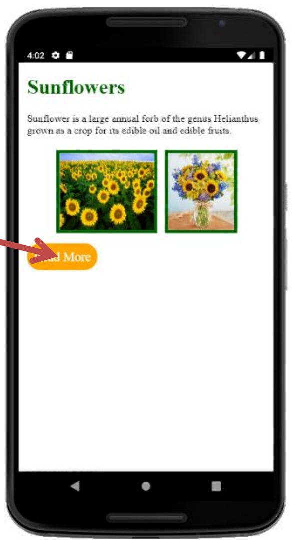


Sunflower is a large annual forb of the genus Helianthus grown as a crop for its edible oil and edible fruits.

There are over three hundred species and thousands of cultivars. They form a group of plants that can be erect shrubs, climbing, or trailing, with stems that are often armed with sharp prickles.

For this activity, we are going to create a modal window using CSS’s transition, opacity, pointer-event, and background gradient properties.

First, we are going to create the modal window structure in HTML. We create **Read More** link:



Sunflower is a large annual forb of the genus Helianthus grown as a crop for its edible oil and edible fruits.

HTML

```
<!DOCTYPE html>
<html lang="en" dir="ltr">
  <head>
    <meta charset="utf-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <link href="index.css" type="text/css" rel="stylesheet"/>
    <title>Modal by Huixin Wu</title>
  </head>
  <body>
  <h1>Sunflowers</h1>
      <p>Sunflower is a large annual forb of the genus Helianthus grown as a crop for its
      edible oil and edible fruits. </p>
      <figure>
        <img src="img/sunflower1.jpg">
        <img src="img/sunflower2.jpg">
      </figure>
      <a href="#openModal" class="linkModel">Read More</a>
    </body>
  </html>
```

CSS

```
body{ padding: 12px; }
h1{ color: darkgreen; }
.linkModel{
text-align:center;
background-color: orange;
font-size:  20px;
padding: 10px;
border-radius: 20px;
text-decoration:none;
color: white;
}
figure img:nth-child(1){
  width: 50%;
  border: solid darkgreen 5px;
  margin: 2%;
  height: 120px;
  float: left;
}
figure img:nth-child(2){
  width: 35%;
  border: solid darkgreen 5px;
  margin: 2%;
  height: 120px;
}
```

Now it is time to create the modal window. From the HTML code, the code line:

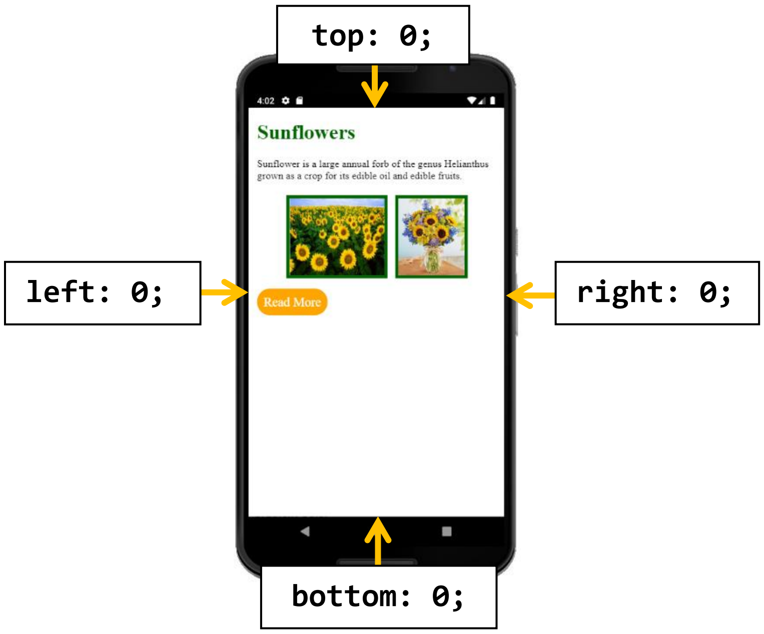
```
<p class="linkModel"><a href="#openModal">Read More</a></p>
```

we can see that the modal is linked to an element **`id`** as **`"#openModal".`** Therefore, we have to create the modal element using `<div>` tag and we will **`id`** it as: **`id="openModal".`** For modal window's `<div>,` we will also add a class name as: `class="modalWindow"` for css attributes.

HTML

```
<!DOCTYPE html>
<html lang="en" dir="ltr">
  <head>
    <meta charset="utf-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <link href="index.css" type="text/css" rel="stylesheet"/>
    <title>Modal by Huixin Wu</title>
  </head>
  <body>
  <h1>Sunflowers</h1>
      <p>Sunflower is a large annual forb of the genus Helianthus grown as a crop for its
      edible oil and edible fruits. </p>
      <figure>
        <img src="img/sunflower1.jpg">
        <img src="img/sunflower2.jpg">
      </figure>
      <a href="#openModal" class="linkModel">Read More</a>

      <div id="openModal" class="modalWindow">

      </div>

    </body>
  </html>
```

In the CSS file, since the modal will cover the entire app view, we can set the top, right, left, and bottom to 0:

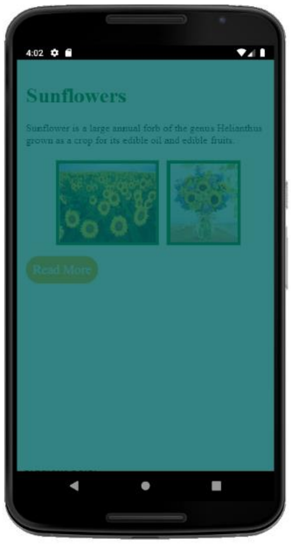

top: 0;
left: 0;
right: 0;
bottom: 0;
Sunflowers
Sunflower is a large annual forb of the genus Helianthus grown as a crop for its edible oil and edible fruits.
Read More

The other property is to add 80% of transparency to the background color using **rgba**:

```
background: rgba(160,80,160,0.8);
```

CSS

```
.modalWindow {
position: fixed;
top: 0;
right: 0;
bottom: 0;
left: 0;
background-color: rgba(0,100,100,0.8);
}
```



Sunflowers

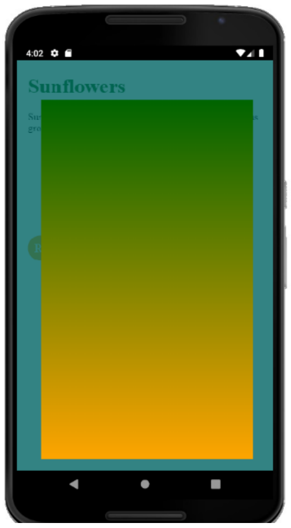
Sunflower is a large annual forb of the genus Helianthus grown as a crop for its edible oil and edible fruits.

Having the background set, we can add another division with class name **`msgText.`**

HTML

```
<!DOCTYPE html>
<html lang="en" dir="ltr">
  <head>
    <meta charset="utf-8">
      <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Modal Window</title>
    <link rel="stylesheet" href="modal.css" type="text/css">
  </head>
  <body>
    <h1>Sunflowers</h1>
    <p>Sunflower is a large annual forb of the genus Helianthus grown as a
      crop for its edible oil and edible fruits. </p>
    <figure>
      <img src="img/sunflower1.jpg">
      <img src="img/sunflower2.jpg">
    </figure>
    <a href="#openModal" class="linkModel">Read More</a>
    <!-- Modal Window container -->
    <div id="openModal" class="modalWindow">
       <div class="msgText">

       </div>
    </div>
  </body>
</html>
```

In the CSS file, since **`msgText`** will display in-front of the background, for this, this division will have position relative. Also, for **`msgText`** we can add linear-gradient background, center, width of 80%, height of 300px, border- radius, and 40% of top margin.



CSS

```
.msgText{
width: 80%;
background: linear-gradient(darkgreen,orange);
position: relative;
margin: auto;
margin-top: 20%;
height: 80%;
}
```

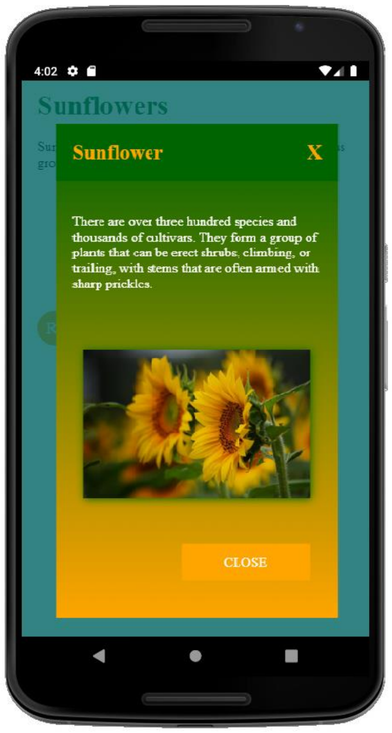
Also, **`msgText`** is used as a message window. Therefore, we can add a title to this message window using **`<h2>`** , a close symbol and link using **`<a>`** element, an image **`<img>`**, and a text container using and **`<p>`**. The next element to add to the message window **`msgText`** is a link to close it. For this, we can use an **`<a>`** tag and link it to the top of the web app using: **`href="#"`**. Also, we can class it as **`class="modal-close"`** for CSS attributes.

HTML

```
<!DOCTYPE html>
<html lang="en" dir="ltr">
  <head>
    <meta charset="utf-8">
      <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Modal Window</title>
    <link rel="stylesheet" href="modal.css" type="text/css">
  </head>
  <body>
    <h1>Sunflowers</h1>
    <p>Sunflower is a large annual forb of the genus Helianthus grown as a
     crop for its edible oil and edible fruits. </p>
    <figure>
      <img src="img/sunflower1.jpg">
      <img src="img/sunflower2.jpg">
    </figure>
    <a href="#openModal" class="linkModel">Read More</a>
    <!-- Modal Window container -->
    <div id="openModal" class="modalWindow">
      <div class="msgText">

        <h2>Sunflower <a href="#" class="modal-closeX">X</a> </h2>
        <p>There are over three hundred species and thousands of cultivars.
         They form a group of plants that can be erect shrubs, climbing, or
         trailing, with stems that are often armed with sharp prickles.</p>
        <img src="img/sunflower.jpg">
         <a href="#" class="modal-close">CLOSE</a>

      </div>
    </div>
  </body>
</html>
```

In CSS, we add padding to **`<h3>`** and **`<p>`,** and align the text to justify in **`<p>`**. Remember, to call **`<h3>`** and **`<p>`** element within the **`.msgText`** division, we will need to call the division first follows with the element within it, for example: **`.msgText h3`**.

The app should look as the following:

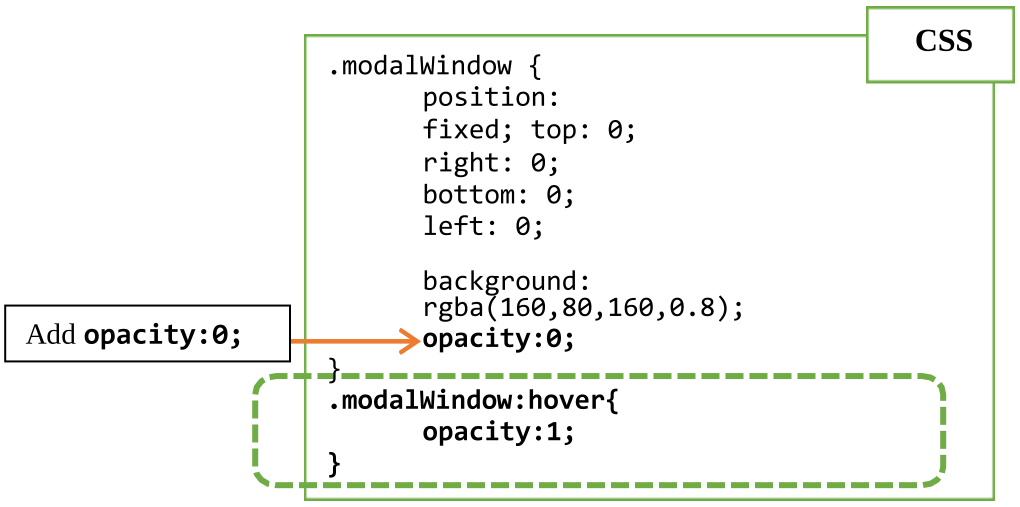


There are over three hundred species and thousands of cultivars. They form a group of plants that can be erect shrubs, climbing, or trailing, with stems that are often armed with sharp prickles.

CSS

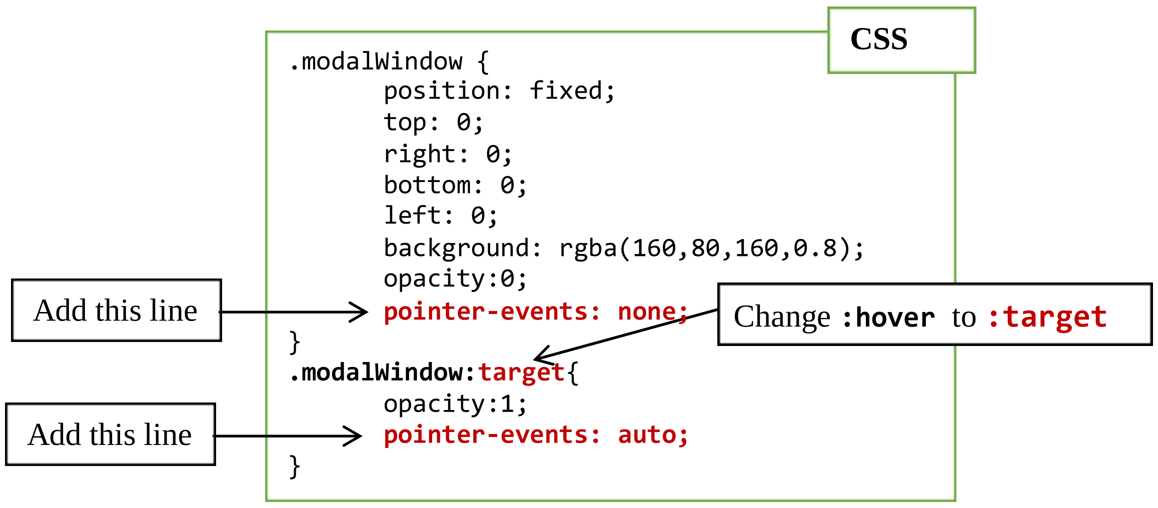
```
.msgText h2{
   padding: 20px;
   background-color: darkgreen;
   color: orange;
}
.modal-closeX{
  color:orange;
  float: right;
  display: inline-block;
  text-decoration: none;
}
.msgText p{
   padding: 20px;
   color:white;
}
.msgText img{
  width: 80%;
  height: auto;
  margin:10%;
  box-shadow: 1px 1px 10px darkgreen;
}
.modal-close {
color:white;
background-color: orange;
padding: 12px 50px 12px 50px;
text-align: center;
text-decoration: none;
float: right;
margin-right: 10%;
}
```

Once we have the model set, we can set the opacity attribute to it. The idea is to make the modal window to invisible, **`opacity:0;`** , when the web app is loaded, then when the model link is hover, the modal window will become visible, **`opacity: 1;`**



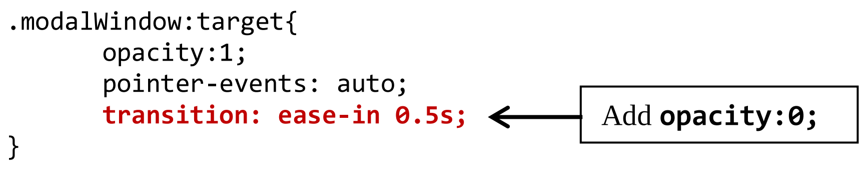
```
.modalWindow {
        position:
        fixed; top: 0;
        right: 0;
        bottom: 0;
        left: 0;

        background:
        rgba(160,80,160,0.8);
        opacity:0;
}
.modalWindow:hover{
        opacity:1;
}
```

If we run the app, the message window will not close when we click on the CLOSE link. This happens because we did not set the **`pointer-events`** to **`target`** an element that has the CLOSE link. For this, we can include **`pointer-events:none`**; to the element that has the anchor tag **`<a>`** beneath it. In this activity, we target the modal window **`.modalWindow`** and when click on the CLOSE link, the model window will close, that is why we need to change **`.modalWindow:hover`** to **`.modalWindow:target`** and add a **`pointer-events: auto;`** which means that the any anchor **`<a>`** tag under **`.modalWindow`** will react to the pointer events. In other words, when we click on the CLOSE link, the anchor **`<a>`** tag will take us to the beginning to the web app as states with **`href="#".`**



```
.modalWindow {
        position: fixed;
        top: 0;
        right: 0;
        bottom: 0;
        left: 0;
        background: rgba(160,80,160,0.8);
        opacity:0;
        pointer-events: none;
}
.modalWindow:target{
        opacity:1;
        pointer-events: auto;
}
```

We can also add some animation to our modal window, for example, we can make the modal window to **`ease-in`** when it opens.



```
.modalWindow:target{
        opacity:1;
        pointer-events: auto;
        transition: ease-in 0.5s;
}
```