LAB 5.1

Create a web page using JavaScript (DOM objects, arrays):

Use the following information (web page) to create/modify existing web code with **3 JS arrays** (for planets names, the distances from Sun and the diameters).

Use DOM objects and methods (**document.getElementById**(…) **.toUpperCase()** or **.toLowerCase()**,the **.value** or **.src** or **.innerHTML**) to match the information into the arrays and to control the presentation of the information into the web page. Include the **jQuery** files (external and internal), then use it for displaying images, changing colors of web elements.

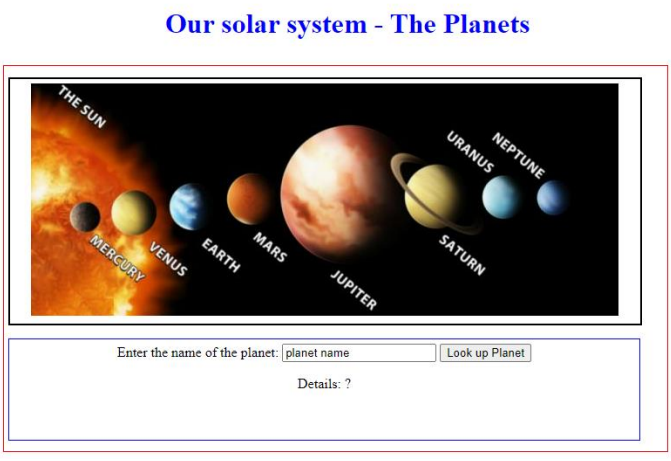
Use objects **Array** to save and then, access data for all 9 planets, build the output text and use for loop or switch case to choose and display the corresponding image and data
Use the event onclick into the button and onchange into the input element to call appropriate function(s).
Enter the name of the planet, and if you click the Search button, the information and the image will be displayed using the index from the first table containing the planets names; if the entry is not funded in the first array, an error message will be displayed.

Use following data into your tables:

Sun:temperature: 5800 K (surface) 15,600,000 K (core); diameter: 1,390,000 km.
Mercury:orbit: 57,910,000 km from Sun; diameter: 4,880 km
Venus:orbit: 108,200,000 km from Sun; diameter: 12,103.6 km
Earth:orbit: 149,600,000 km from Sun; diameter: 12,756.3 km
Mars:orbit: 227,940,000 km from Sun; diameter: 6,794 km
Jupiter:orbit: 778,330,000 km from Sun; diameter: 142,984 km (equatorial)
Saturn:orbit: 1,429,400,000 km from Sun; diameter: 120,536 km (equatorial)
Uranus:orbit: 2,870,990,000 km from Sun; diameter: 51,118 km (equatorial)
Neptune:orbit: 4,504,000,000 km from Sun; diameter: 49,532 km (equatorial)

Also, once you click on the planet (mapping), your web page should display the planet image and the description into the appropriate fields.

Print screens:



Enter the name of one planet, then click on Search, or click on one of first 3 planets

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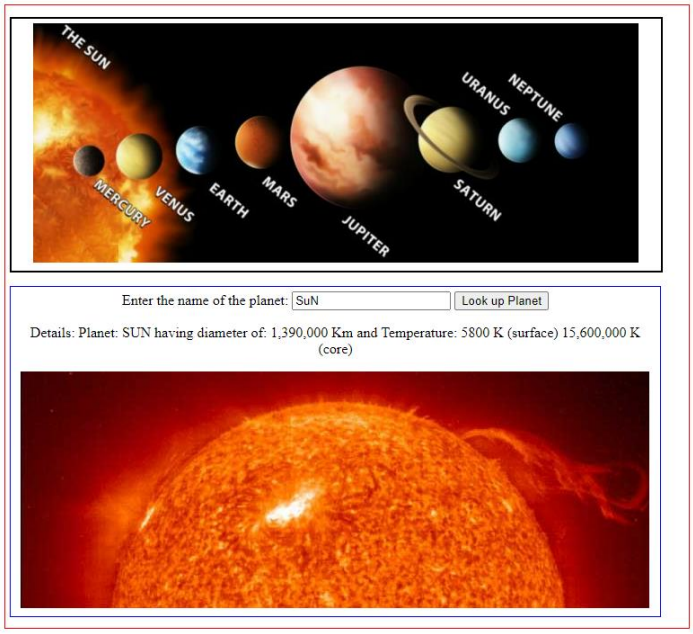
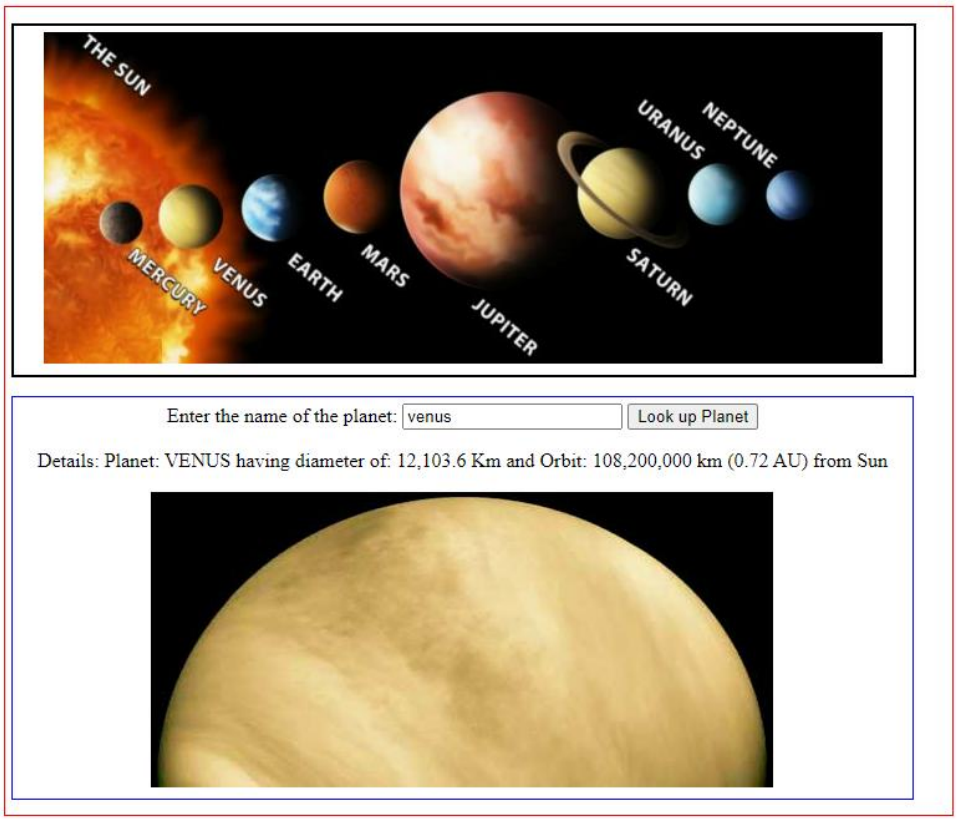


Enter **sun** or **SuN** or **sUN** then Search



Click on one of the three planets (Sun, Mercury or Venus). Add the necessary code to apply for all other planets. Complete the arrays with data and images for the other planets.

Mihai Maftei

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<!DOCTYPE html>
<html>
 <head>
   <meta charset="UTF-8">
   <title>Planets</title>
   <link rel="stylesheet" type="text/css" href="./mystyle4.css"/>
   <script type="text/javascript">
    function setPlanet(PlanetName)
       {
         document.getElementById("PName").value = PlanetName;
         checkPlanet();
       }

    function checkPlanet()
       {//arrays containing data for 3 planets
         var arrNames = ["sun", "mercury", "venus"];
         var arrDias = ["1,390,000 Km", "4,880 Km", "12,103.6 Km"];
         var arrDistances = ["Temperature: 5800 K (surface) 15,600,000 K (core)",
                             "Orbit: 57,910,000 km (0.38 AU) from Sun",
                             "Orbit: 108,200,000 km (0.72 AU) from Sun" ];
         var arrImgs = ["./Img/Sun.jpg", "./Img/Mercury.jpg", "./Img/venus.jpg"];
         var result, nPlanet, imgPlanet;
         nPlanet = document.getElementById("PName").value.toLowerCase();

         var index = -1;

         for (var i = 0; i < 3; i++) //using the loop
         {
           if (arrNames[i] == nPlanet)
           {
            index = i;
            result = "Planet: "+arrNames[index].toUpperCase()+
      " having diameter of: "+arrDias[index] + and "+arrDistances[index];
            imgPlanet = arrImgs[index];
           }
         }

         if (index == -1)  //no planet name was found
         {
              result = "Planet: inexistent having diameter of: 0 Km and 0 Km as
distances from Sun!";
              imgPlanet = "./Img/none.jpg";
         }
         /*  using the switch
         switch (nPlanet){
           case "sun" :
                     result = "Planet: "+arrNames[0].toUpperCase()+
      " having diameter of: "+arrDias[0] + " and "+arrDistances[0];
                     imgPlanet = "./Img/Sun.jpg";
             break;
              case "mercury" :
                     result = "Planet: "+arrNames[1].toUpperCase()+
      " having diameter of: "+arrDias[1] + " and "+arrDistances[1];
                     imgPlanet = "./Img/Mercury.jpg";
             break;

              case "venus" :
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                    result = "Planet: "+arrNames[2].toUpperCase()+
        " having diameter of: "+arrDias[2] + " and "+arrDistances[2];
                    imgPlanet = "./Img/venus.jpg";
                break;

                default :
        result = "Planet: inexistent having diameter of: 0 Km and 0 Km as distances
from Sun!";
                    imgPlanet = "./Img/none.jpg"; break;
                }
                */
                document.getElementById("Res").innerHTML = result;
                document.getElementById("Rimg").src = imgPlanet;
        }
    </script>
 </head>
<body id="top">
 <h1>Our solar system - The Planets</h1>
<div class="plan1" style="width:95%; border:1px solid red">
        <div class="plan1">
                <img src="./Img/planets.jpg" alt="Planets"
                        usemap="#Planets" />
                 <map name="Planets">
                        <area shape="circle" coords="61,153,18"
                       href="#" alt="Mercury" onclick="setPlanet('mercury');" />
                        <area shape="circle" coords="117,148,25"
                              href="#" alt="Venus" onclick="setPlanet('venus');" />
                        <area shape="circle" coords="188,140,29"
                              href="#Earth" alt="Earth" />
                       <area shape="circle" coords="255,131,30"
                              href="#Mars" alt="Mars" />
                       <area shape="circle" coords="355,128,71"
                              href="#Jupiter" alt="Jupiter" />
                       <area shape="circle" coords="470,130,40"
                              href="#Saturn" alt="Saturn" />
                       <area shape="circle" coords="543,130,24"
                              href="#Uranus" alt="Uranus" />
                       <area shape="circle" coords="600,130,20"
                              href="#Neptune" alt="Neptune" />
        <area shape="poly" coords="0,53,50,65,90,95,127,180,120,235,114,265,0,265"
                              href="#" alt="Sun" onclick="setPlanet('sun');" />
                       <area shape="rect" coords="0,0,675,265"
                              href="#Space" alt="Space" />
                </map>
        </div>
        <div style="width:95%; border:1px solid blue">
         <form action="server_side.asp" method="post">
          <input type="text" value="planet name" id="PName" />
          <input type="button" value="Look up Planet" onclick="checkPlanet();" />
          <p>Details: <span id="Res">?</span></p>
          <img src="" alt="image place" id="Rimg" />
         </form>
        </div>
</div>
    <div class="plan1" style="width:95%; border:1px solid white">
        <div>
          <br /><br /><br /><br /><br /><br /><br /><br /><br /><br /><br />
          <br /><br /><br /><br /><br /><br /><br /><br /><br /><br /><br />
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        </div>
              <div class="row">
              <h2><a name="Earth">Earth</a></h2>
                     <p>
                            Orbit: 149,600,000 km (1.00 AU) from Sun
                     </p>
              </div>
              <div class="row">
                     <img class="planet" src="./Img/Earth.jpg" alt="Earth" />
              </div>
              <div class="row">
                     <p>
                            Diameter: 12,756.3 km
                     </p>
                     <a href="#Top">Go to the top</a>
              </div>
       <div>
       <h2>Description</h2>
                     <p>
                            ...
                     </p>
       </div>


       <div class="row">
       <h2><a name="Space">Space</a></h2>
                     <p>
                            Temperature: 0 K
                     </p>
       </div>
       <div class="row">
                     <img class="planet" src="./Img/Space.jpg" alt="Space" />
       </div>
       <div class="row">
                     <p>
                            Diameter: infinite km.
                     </p>
                     <a href="#Top">Go to the Top</a>
       </div>
       <div>
       <h2>Description</h2>
                     <p>
                            ...
                     </p>
       </div>
       <br/><br/><br/><br/><br/><br/><br/><br/><br/><br/><br/>
       <br/><br/><br/><br/><br/><br/><br/><br/><br/><br/><br/>
    </div>
 </body>
</html>
```

Add your name and the date on the top of the page as a comment.

Upload the work by LEA.
Thank you.

Mihai Maftei