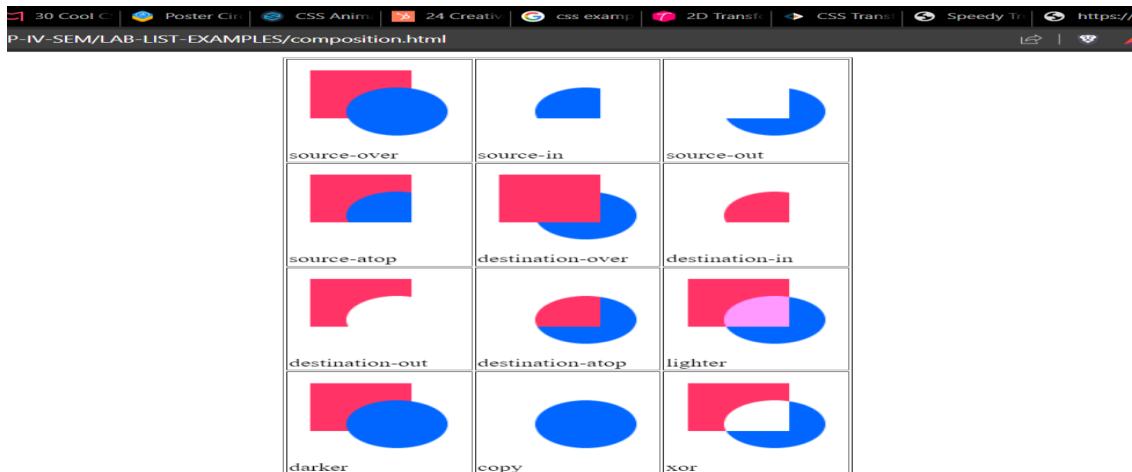

B7) Create web page using HTML5 canvas element to illustrate all canvas composition. Output must exactly look like the following screenshot:



```
<!DOCTYPE HTML>
<html>
  <head>
    <script type = "text/javascript">
      var compositeTypes = [
        'source-over','source-in','source-out','source-atop',
        'destination-over','destination-in','destination-out',
        'destination-atop','lighter','darker','copy','xor'
      ];

      function drawShape() {
        for (i=0;i<compositeTypes.length;i++) {
          var label = document.createTextNode(compositeTypes[i]);
          document.getElementById('lab'+i).appendChild(label);
          var ctx = document.getElementById('tut'+i).getContext('2d');

          // draw rectangle
          ctx.fillStyle = "#FF3366";
          ctx.fillRect(15,15,70,70);

          // set composite property
          ctx.globalCompositeOperation = compositeTypes[i];

          // draw circle
          ctx.fillStyle = "#0066FF";
          ctx.beginPath();
          ctx.arc(75,75,35,0,Math.PI*2,true);
          ctx.fill();
        }
      }
    </script>
```

</head>

<body onload = "drawShape();">

<table border = "1" align = "center">

<tr>

<td><canvas id = "tut0" width = "125" height = "125"></canvas>

<label id = "lab0"></label>

</td>

<td><canvas id = "tut1" width = "125" height = "125"></canvas>

<label id = "lab1"></label>

</td>

<td><canvas id = "tut2" width = "125" height = "125"></canvas>

<label id = "lab2"></label>

</td>

</tr>

<tr>

<td><canvas id = "tut3" width = "125" height = "125"></canvas>

<label id = "lab3"></label>

</td>

<td><canvas id = "tut4" width = "125" height = "125"></canvas>

<label id = "lab4"></label>

</td>

<td><canvas id = "tut5" width = "125" height = "125"></canvas>

<label id = "lab5"></label>

</td>

</tr>

<tr>

<td><canvas id = "tut6" width = "125" height = "125"></canvas>

<label id = "lab6"></label>

</td>

<td><canvas id = "tut7" width = "125" height = "125"></canvas>

<label id = "lab7"></label>

</td>

<td><canvas id = "tut8" width = "125" height = "125"></canvas>

<label id = "lab8"></label>

</td>

</tr>

```

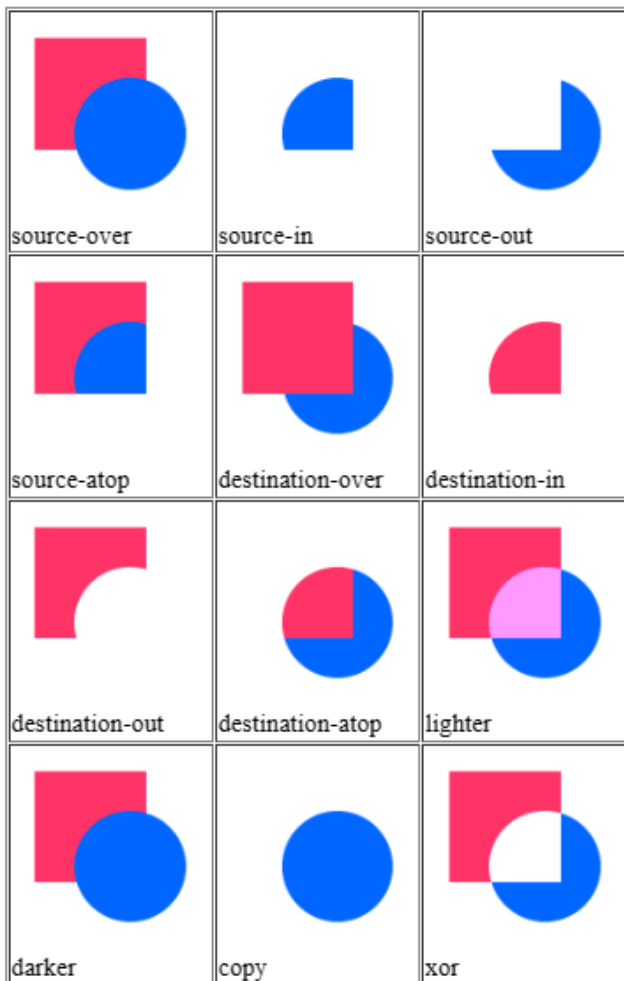
<tr>
  <td><canvas id = "tut9" width = "125" height = "125"></canvas><br/>
    <label id = "lab9"></label>
  </td>

  <td><canvas id = "tut10" width = "125" height = "125"></canvas><br/>
    <label id = "lab10"></label>
  </td>

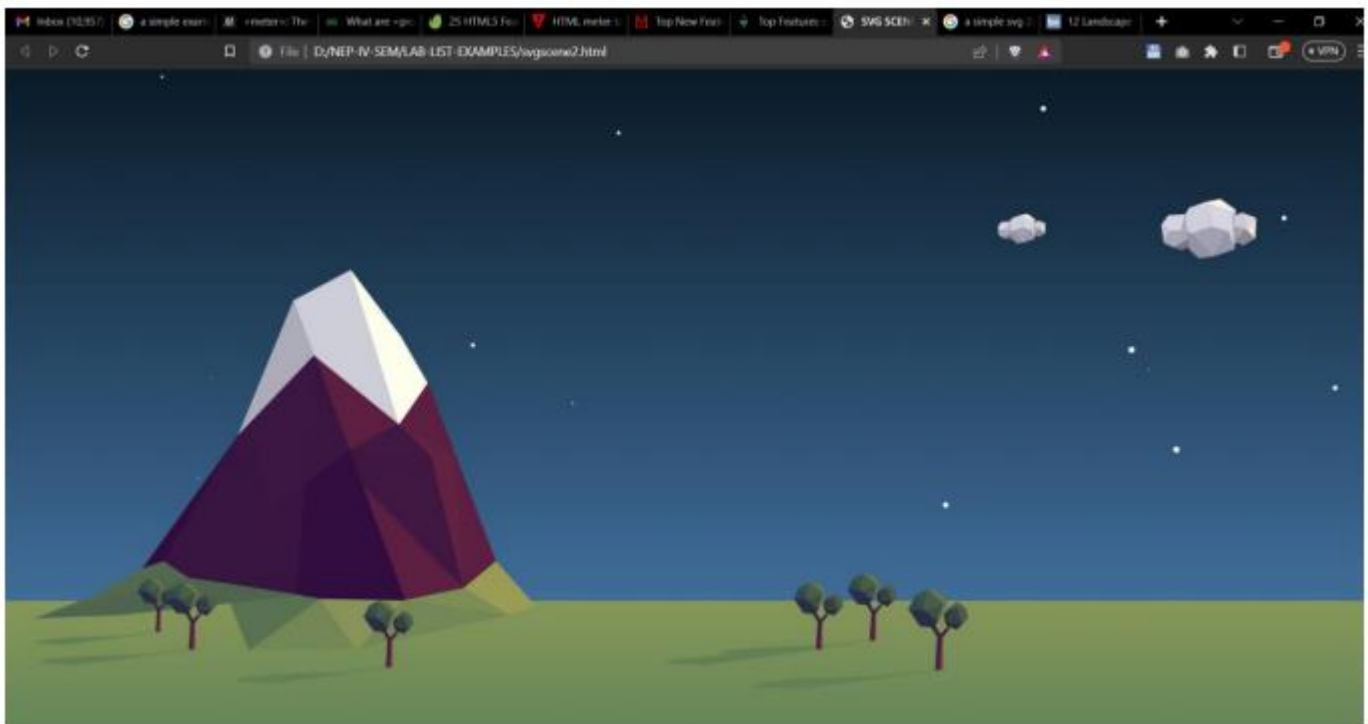
  <td><canvas id = "tut11" width = "125" height = "125"></canvas><br/>
    <label id = "lab11"></label>
  </td>
</tr>
</table>

</body>
</html>

```



B8. Create a web page which must be as shown in below image using HTML5, SVG and CSS3. Here Mountain, trees and clouds must be drawn using SVG, Clouds must have bounce animation (css animation), and stars in sky changes their position randomly for every time page is loaded (java script can be used). Sky and stars must be created using element.



Note: Online (live access) CSS files must be strictly avoided.

Partb8.html

```
<!DOCTYPE html>
```

```
<head>
```

```

<title> SVG SCENE</title>
<link rel="stylesheet" type="text/css" href="sky.css"/>
<script>
window.onload = function()
{
var sky = document.getElementById("sky");

sky.width = document.body.clientWidth;
sky.height = document.body.clientHeight;

if (sky.getContext){
    var skyContext = sky.getContext("2d");

    var radius = 2;

    for(var star = 0; star < 50; star++){
        var min = ( Math.random() * 30 + 5 ) / 10;
        var max = sky.width - radius;

        var centerX = Math.floor(Math.random() * (max - min + 1)) + min;
        var centerY = Math.floor(Math.random() * (max - min + 1)) + min;

        skyContext.beginPath();
        skyContext.arc(centerX, centerY, min, 0, 2 * Math.PI);

        skyContext.fillStyle = "rgb(255, 255, 255)";
        skyContext.fill();
    }
}
}
</script>
</head>
<body>
<section class="stage">

<svg height="390" width="550" id="mountains">
    <polygon points="300,390 190,90 320,130 400,340" fill="#5d2042" />
    <polygon points="0,340 108,190 194,100 201,120 301,390" fill="#320e40" />
    <polygon points="14,348 117,174 194,102 172,377" fill="#3b1642" fill-opacity="0.8" />
    <polygon points="120,174 194,102 233,206 144,275" fill="#3d1744" fill-opacity="0.9" />

    <polygon points="233,206 288,177 324,214" fill="#421943" />
    <polygon points="233,206 324,214 247,245" fill="#3e1743" />
    <polygon points="247,245 324,214 360,360" fill="#411842" />
    <polygon points="324,214 288,177 350,210" fill="#632242" />
    <polygon points="324,214 350,210 360,360" fill="#652343" />

```

```

<g id="apex">
  <polygon points="108,190 170,40 194,100" fill="#aeacb9" />
  <polygon points="170,40 234,6 260,70 288,178 194,102" fill="#ceced8" />
  <polygon points="234,6 290,80 320,132 288,178" fill="#ffffed" />
</g>
</svg>

```

```

<svg height="347" width="168" id="cloud1">
  <g>
    <polygon points="0,30 8,19 27,18 22,36 9,37" fill="#d5d6e2" />
    <polygon points="0,30 9,37 3,50" fill="#c7c2d1" />
    <polygon points="3,50 9,37 22,36 33,44 14,55" fill="#a8a9b7" />
    <polygon points="14,55 33,44 36,52 23,58" fill="#7a7789" />
    <polygon points="27,18 22,36 33,44" fill="#acabb9" />

    <polygon points="31,11 51,4 66,1 83,13 83,23 78,23" fill="#fff6e7" />
    <polygon points="27,18 31,11 54,6 56,32 33,40 29,36" fill="#d0d0dc" />
    <polygon points="29,36 58,65 42,67 31,57" fill="#9694a3" />
    <polygon points="33,40 56,32 75,37 58,65" fill="#a2a1b1" />
    <polygon points="58,65 75,37 82,57" fill="#9897a7" />
    <polygon points="56,32 54,6 80,14 82,57 75,37" fill="#d7d6e2" />

    <polygon points="80,15 84,17 88,30 85,50 81,51" fill="#9d9da9" />
    <polygon points="90,16 82,20 81,31 95,35" fill="#cdcdca" />
    <polygon points="81,31 82,47 95,35" fill="#a2a2b0" />
    <polygon points="82,47 95,35 105,45 91,53" fill="#878892" />
    <polygon points="105,45 95,35 106,22" fill="#fbe5d5" />
    <polygon points="106,22 95,35 90,16" fill="#dbd6dd" />
  </g>
</svg>

```

```

<svg height="347" width="168" id="cloud2">
  <g transform="scale(0.5)">
    <polygon points="0,30 8,19 27,18 22,36 9,37" fill="#d5d6e2" />
    <polygon points="0,30 9,37 3,50" fill="#c7c2d1" />
    <polygon points="3,50 9,37 22,36 33,44 14,55" fill="#a8a9b7" />
    <polygon points="14,55 33,44 36,52 23,58" fill="#7a7789" />
    <polygon points="27,18 22,36 33,44" fill="#acabb9" />

    <polygon points="31,11 51,4 66,1 83,13 83,23 78,23" fill="#fff6e7" />
    <polygon points="27,18 31,11 54,6 56,32 33,40 29,36" fill="#d0d0dc" />
    <polygon points="29,36 58,65 42,67 31,57" fill="#9694a3" />
    <polygon points="33,40 56,32 75,37 58,65" fill="#a2a1b1" />
    <polygon points="58,65 75,37 82,57" fill="#9897a7" />
    <polygon points="56,32 54,6 80,14 82,57 75,37" fill="#d7d6e2" />
  </g>
</svg>

```

```

    <polygon points="80,15 84,17 88,30 85,50 81,51" fill="#9d9da9" />
    <polygon points="90,16 82,20 81,31 95,35" fill="#cdcdda" />
    <polygon points="81,31 82,47 95,35" fill="#a2a2b0" />
    <polygon points="82,47 95,35 105,45 91,53" fill="#878892" />
    <polygon points="105,45 95,35 106,22" fill="#fbe5d5" />
    <polygon points="106,22 95,35 90,16" fill="#dbd6dd" />
  </g>
</svg>

<svg id="ground"></svg>

<svg id="hills" width="700" height="170">
  <polygon points="480,70 530,100 560,90 516,40" fill="#9b9d57" />
  <polygon points="480,70 530,100 412,84" fill="#7d8f57" />
  <polygon points="530,100 412,84 360,138" fill="#748857" />
  <polygon points="360,138 240,140 320,82" fill="#748857" />

  <polygon points="412,84 360,140 320,82" fill="#88945a" />
  <polygon points="320,82 240,140 210,64" fill="#597252" />
  <polygon points="300,78 100,100 0,104 170,58" fill="#4f654f" />
  <polygon points="172,58 145,40 122,48 66,79 0,104" fill="#536a50" />
</svg>

<svg class="trees">
  <g class="tree" id="tree" transform="translate(400,30)">
    <polygon points="25,75 27,44 21,34 25,33 30,41 38,33 40,34 31,46 29,75" fill="#3f2145" />
    <polygon points="29,75 31,46 32,45 32,74" fill="#812743" />

    <polygon points="2,21 11,33 20,32 27,29 32,23 24,35 11,34" fill="#282246" />
    <polygon points="27,29 33,13 18,0 29,2 37,13 32,23" fill="#6a7749" />

    <polygon points="33,23 35,32 45,37 55,27 44,35 37,31" fill="#210f3f" />
    <polygon points="37,31 38,17 46,17 50,31" fill="#354346" />
    <polygon points="37,31 50,31 45,37" fill="#292941" />
    <polygon points="33,23 37,31 38,17" fill="#2b2d42" />
    <polygon points="38,17 46,17 46,11" fill="#495e4b" />
    <polygon points="46,17 46,11 54,18" fill="#5b7049" />
    <polygon points="44,11 54,18 56,26 50,31" fill="#515d49" />

    <polygon points="11,33 20,32 27,29 15,19" fill="#292e42" />
    <polygon points="27,29 33,13 15,19" fill="#424f46" />
    <polygon points="33,13 18,0 15,19" fill="#48604a" />
    <polygon points="18,0 7,5 15,19" fill="#3a5449" />
    <polygon points="7,5 0,18 15,19" fill="#344847" />
    <polygon points="0,18 11,33 15,19" fill="#292c4b" />
  </g>
</svg>

```

```

        <polygon points="175,4 121,10 53,12 12,16 5,20 47,22 122,12 180,4" fill="#648155"
transform="translate(-148,70)" />
    </g>

    <use x="-215" y="-23" xlink:href="#tree" transform="scale(0.8)" />
    <use x="-220" y="-20" xlink:href="#tree" />
    <use x="540" y="-30" xlink:href="#tree" />
    <use x="480" y="-20" xlink:href="#tree" />
    <use x="440" y="-15" xlink:href="#tree" transform="scale(1.2)" />

</svg>

<canvas id="sky"></canvas>
</section>
</body>
</html>

```

Sky.css

```

*{
    margin: 0;
    padding: 0;
}
@media (max-width: 960px) {
    body {
        zoom: 0.7;
    }
}
html, body {
    height: 100%;
}
@keyframes bounce {
    from {
        transform: translateY(0px);
    }
    to {
        transform: translateY(-4px);
    }
}
@keyframes sway {
    from {
        transform: translateX(0px);
    }
    to {

```



```

        transform: translateX(-12px);
    }
}
body {
    min-height: 100%;
    background: linear-gradient(to bottom, #0a1a27, #4e83b7);
    position: relative;
}
body #mountains {
    z-index: 2;
    position: absolute;
    bottom: 20%;
    margin-bottom: -16px;
    left: 10%;
}
body #cloud1 {
    z-index: 2;
    position: absolute;
    top: 20%;
    right: 4%;
    animation: bounce 1.5s ease-in-out 0s infinite alternate;
}
body #cloud2 {
    z-index: 1;
    position: absolute;
    top: 22%;
    right: 16%;
    animation: bounce 2.5s ease-in-out 2s infinite alternate;
}
body .trees {
    width: 100%;
    height: 130px;
    z-index: 4;
    position: absolute;
    bottom: 20%;
    margin-bottom: -100px;
}
body #ground {
    z-index: 1;
    width: 100%;
    height: 20%;
    position: absolute;
    bottom: 0;
    background: #879759;
    background: linear-gradient(to bottom, #879759, #648459);
}

```

```
body #hills {  
    //background: rgba(255, 0, 0, 0.3);  
    position: absolute;  
    left: 10%;  
    margin-left: -120px;  
    margin-bottom: -86px;  
    bottom: 20%;  
    z-index: 3;  
}  
body #stars {  
    width: 100%;  
    height: 100%;  
}
```