```
<!DOCTYPE html>
<html>
    <head>
        <title>HTML5 CSS3</title>
        <meta name="viewport" content="width=device-width, initial-scale=1.0,
            maximum-scale=1.0, user-scalable=no, minimal-ui">
        <style type="text/css">

        </style>
    </head>

    <body>
        <canvas id="myCanvas" width="2000" height="2000"></canvas>

        <script type="text/javascript">

            var myCanvas = document.getElementById("myCanvas");
            var context = myCanvas.getContext("2d"); //specify what kind of context
                you want in the canvas: 2D or 3D. It can be used to make games.
            if(screen.height < screen.width)
            {
                myCanvas.style.height = screen.height * 0.8+"px";
                myCanvas.style.width = screen.height * 0.8+"px";
                console.log ("Height: "+ myCanvas.style.height,myCanvas.style.width,
                    screen.height * 0.9)
            }
            else
            {
                myCanvas.style.height = screen.width * 0.9+"px";
                myCanvas.style.width = screen.width * 0.9+"px";
                console.log ("Width: "+ myCanvas.style.height, screen.width * 0.9)
            }

            var radius = (myCanvas.width/2) * 0.95;

            context.translate(myCanvas.width/2, myCanvas.height/2); //move 0,0 to
                the center of the canvas

            setInterval(clock, 1000); //executr clock every 1000ms (1 second)



            function clock()
            {
                var time = new Date();
                var hours = time.getHours();
                var minutes = time.getMinutes();
                var seconds = time.getSeconds();
                var angle = 0;

                //External Circle
                context.beginPath();
                context.arc(0, 0, radius, 0, 2*Math.PI);
                context.fillStyle = "black";
                context.fill();

                //internal Circle
                context.beginPath();
                context.arc(0, 0, radius * 0.03, 0, 2*Math.PI);
                context.fillStyle = "white";
                context.fill();

                //Numbers
                var angle;
                var number;
                context.fillStyle = "#F0A400";
                context.font = radius * 0.15 + "px Arial"; //font 15% of the radius
                    length

                context.textBaseline="middle"; //keep number mid-row (center
                    vertically)
                context.textAlign="center"; //center the number horizontally on its
```

```
                    line
67
68                  for(number = 1; number < 13; number++)
69                  {
70                      angle = number * Math.PI / 6; //multiply the current number by a
                            sixth of half a circle
71                      context.rotate(angle); //rotate it by the radiant amount
72                      context.translate(0, -radius*0.90); //translate on the rotated y
                            position
73                      context.rotate(-angle); //eliminate centered rotation of each
                            number once it has been translated
74                      context.fillText(number.toString(), 0, 0); //draw the number at
                            the translated position
75                      //context.rotate(angle); //restore the angled number so that I can
76                      //context.translate(0, radius*0.85); //translate back in place
                            in center position
77                      //context.rotate(-angle); //reset angle to vertical position
78                      context.setTransform(1, 0, 0, 1, myCanvas.width/2,
                            myCanvas.height/2); //reset rotations and translations
                            (repositioning the origin in the middle of the canvas)
79                  }
80
81                  //Hours hand
82                  context.moveTo(0, 0);
83                  hours %= 12;
84                  angle = hours * (Math.PI / 6) + //this fraction is five minutes big
85                          minutes * Math.PI / (6*60) + //PI (180°) gets divided into 6
                                for the 5 minutes span, and then 60 more times as in
                                that small space 60 minutes have to fit
86                          seconds * Math.PI / (360*60);// 1/360th is the maximum space
                                for the seconds portion
87                  context.rotate(angle);
88                  context.translate(0, -radius * 0.5);
89                  context.lineTo(0, 0);
90                  context.strokeStyle = "white";
91                  context.lineCap = "round";
92                  context.lineWidth = "25";
93                  context.stroke();
94                  context.setTransform(1, 0, 0, 1, myCanvas.width/2,
                        myCanvas.height/2); //reset rotations and translations
                        (repositioning the origin in the middle of the canvas)
95
96
97                  //Minutes hand
98                  context.moveTo(0, 0);
99                  angle = minutes * Math.PI / 30 +
100                         seconds * Math.PI / (30 * 60);
101                 context.rotate(angle);
102                 context.lineTo(0, -radius * 0.75);
103                 context.strokeStyle = "white";
104                 context.lineCap = "round";
105                 context.lineWidth = "15";
106                 context.stroke();
107                 context.setTransform(1, 0, 0, 1, myCanvas.width/2,
                        myCanvas.height/2);
108
109
110                 //Seconds hand
111                 context.moveTo(0, 0);
112                 angle = seconds * Math.PI / 30;
113                 context.rotate(angle);
114                 context.lineTo(0, -radius * 0.9);
115                 context.strokeStyle = "white";
116                 context.lineCap = "round";
117                 context.lineWidth = "5";
118                 context.stroke();
119                 context.setTransform(1, 0, 0, 1, myCanvas.width/2,
                        myCanvas.height/2);
120             }
121
122         </script>
123     </body>
```

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124    </html>
125
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