QN1)

HTML:

```html
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Document</title>
    <link rel="stylesheet" href="style.css">
</head>
<body>
    <div class="square" >
        CSS
    </div>
</body>
```

CSS:

```css
body{

    display: flex;
    padding:0px;
    margin:10px;

}
.square{
    background-color: rgb(123, 190, 22);
```

```css
    height: 50px;

    width: 80px;

    text-align: center;

    font-size:20px;

    color:azure;

    animation: anim1 5s linear ;

border-radius:10px;

justify-content: center;

align-items:center;

display:flex;


}
@keyframes anim1 {
    0%{

        transform: rotate(0deg);


    }
    25%{

        transform: rotate(20deg);

    }
    50%{

        transform: translate(500px,0) rotate(0deg);

    }
    55%{

        transform: translate(500px,0) rotate(0deg);
```
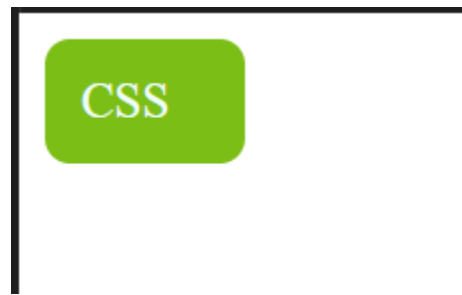
```css
    }
    70%{
        background-color: aqua;
        transform: translate(500px,0) rotate(0deg);
    }
    100%{
        transform: translate(0,0) rotate(-360deg);
    }
}
```

Output:

QN2)Infinite circle forming a square path

HTML:

```html
<!DOCTYPE html>
<html>
<head>
  <link rel="stylesheet" href="style.css">
</head>
<body>

    <div class="container"> </div>
```

```
  </div>

</body>

</html>
```

CSS:

```
@keyframes moveSquare {

  0%   { top: 20%; left: 20%; }

  25%  { top: 20%; left: 80%; }

  50%  { top: 80%; left: 80%; }

  75%  { top: 80%; left: 20%; }

  100% { top: 20%; left: 20%; }

}


@keyframes rotateBorder {

 0%   { transform: rotate(0deg); }

 100% { transform: rotate(360deg); }

}



.container {

  background-color: blue;

  width: 3vw;

  height: 3vw;

  border-radius: 50%;

  position: absolute;

  top: 50%;
```

```css
    left: 50%;

    transform: translate(-50%, -50%);

    animation: moveSquare 6s linear infinite, rotateBorder 2s linear infinite;

  }
```

QN3)

HTML CODE:

```html
<!DOCTYPE html>

<html lang="en">

<head>

  <meta charset="UTF-8">

  <meta name="viewport" content="width=device-width, initial-scale=1.0">

  <title>12-Sided Star with Overlapping Square</title>

  <link rel="stylesheet" href="style.css">

</head>

<body>

  <div class="star-container">
```

```html
      <div class="star star-1"></div>

      <div class="star star-2"></div>

      <div class="star star-3"></div>

      <div class="square"></div>

   </div>

</body>

</html>
```

CSS CODE:

```css
body {

    display: flex;

    justify-content: center;

    align-items: center;

    height: 100vh;

    background-color: white;

}


.star-container {

    position: relative;

    width: 120px;

    height: 120px;

}


.star {

    position: absolute;

    width: 120px;
```

```css
    height: 120px;

    background-color: blue;

}


.star::before,

.star::after {

    content: "";

    position: absolute;

    width: 120px;

    height: 120px;

    background-color: blue;

}


.star::before {

    transform: rotate(30deg);

}


.star::after {

    transform: rotate(-30deg);

}


.star-1 {

    transform: rotate(15deg);

}


.star-2 {
```

```css
    transform: rotate(20deg);

}


.star-3 {

    transform: rotate(25deg);

}


.square {

    position: absolute;

    width: 120px;

    height: 120px;

    background-color: blue;

    top: 50%;

    left: 50%;

    transform: translate(-50%, -50%) rotate(30deg);

}
```

OUTPUT:

QN4)HTML:

```html
<!DOCTYPE html>
<html lang="en">
<head>
   <meta charset="UTF-8">
   <meta name="viewport" content="width=device-width, initial-scale=1.0">
   <title>Problem 4</title>
   <link rel="stylesheet" href="style.css">
</head>
<body>
   <div class="container">

     <div class ="title"><h1>WEB PROGRAMMING</h1></div>
     <div class ="b">
       <a href="s">Home</a>
       <a href="s">About</a>
       <a href="s">Contact</a>
     </div>
     <div class ="main-body">
       <div class ="main">
         <h3>Main Section</h3>
         <p>This is the main content of the page</p>
       </div>
```

```html
        <div class ="article">

            <h3>Article</h3>

            <p>This is a standalone srticle to the main content.</p>

        </div>

        <div class ="sidebar">

            <h3>Sidebar</h3>

            <p>This is the sidebar , containing related links or ads</p>

        </div>

    </div>

    <div class ="last-part"><p>2025 your Company. All rights reserved.</p></div>


    </div>


</body>
</html>
```

CSS:

```css
*{

    margin:0;

    padding:0;

    color:white;

    font-weight: 700;

}
body{

    width: 100%;

    height:100vh;

}
```

```css
.container{

    width: 98%;

    height:97vh;

    padding:1% 1%;

    display:flex;

    flex-direction: column;

    justify-content: space-between;

}


.main-body{

    display: grid;

    height:45vh;

    grid-template-areas:

    "m m m sb"

    "a a a sb";

    gap: 1vh;

}

.title{

    width:100%;

    height: 25vh;

    display: flex;

    justify-content: center;

    align-items: center;

    color:white;

    background-color:rgba(255, 0, 0, 0.729);
```

```css
        }
        .b{
            height:10vh;
            background-color: rgb(51, 170, 217);
            display: flex;
            align-items: center;
            padding: 0 2%;



        }
        .b a {
            text-decoration: none;
            padding:1% 2%;
            width:fit-content;
        }
        .main{
            grid-area: m;
            background-color: #4cca25aa;
        }
        .main-body > *{
            padding:2vh;
            display:  flex;
            justify-content: space-around;
            align-items: left;
            flex-direction: column;
```

```css
}
.article{
    grid-area: a;
    background-color: rgb(174, 24, 174);
}
.sidebar{
    grid-area: sb;
    gap:10%;
    padding:5% 5%;
    justify-content:initial;
    background-color: orange;
}
.last-part{

    display: flex;
    justify-content: center;
    align-items: center;
    height:10vh;
    background-color: gray;
}
```

WEB PROGRAMING

Main Section

This is the main content of the page

Sidebar

This is the sidebar , containing related links or ads

Article

This is a standalone srticle to the main content.