# Bubble fluid website <sub>by Aditya</sub>

**Kumar Mishra**

**BubbleFlowWeb: Immerse yourself in an interactive digital experience where every touch brings a burst of visual delight. This project transforms your screen into a dynamic canvas, where playful bubbles emerge at your fingertips. Perfect for web enthusiasts and creative coders alike,**

# BubbleFlowWeb invites you to dive into a world of responsive design and fluid animation."

## Project Overview:

BubbleFlowWeb is an interactive web application that captivates users with a playful bubble animation. It's designed to respond to touch events on a screen, creating a dynamic and visually engaging experience.

## Technology Used:

- **HTML**: For structuring the web page and embedding the canvas and image elements.
- **CSS**: To style the canvas and ensure it covers the full viewport, providing a seamless visual background.
- **JavaScript**: For creating the interactive bubble animations and handling touch events.

## Challenges Faced:

- Ensuring cross-platform responsiveness and consistent touch event handling.
- Optimizing performance to prevent lag in bubble animation, especially on devices with lower processing power.
- Balancing the growth and shrinkage of bubbles to create a natural and fluid animation.

## Future Improvements:

- Implementing advanced touch gestures like swiping and pinching to interact with the bubbles.
- Adding user customization options for bubble size, expansion rate, and colors.
- Enhancing the visual appeal with gradient colors and adding sound effects for an immersive experience.

## Call to Action:

If you're passionate about creative coding and interactive design, join the BubbleFlowWeb journey! Contribute ideas, report issues, or fork the repository to create your own bubble universe. Let's make the web a more playful place together!

# The Code is given below

## Index.html

```
<!DOCTYPE html>

<html>
```

```html
<head>
    <title>Page Title</title>
</head>
<body>
    <canvas id='canvas'></canvas>
    <img src='https://dl.dropbox.com/scl/fi/lkzwb8fmn6e7j8ugzf7je/image-from-rawpixel-id-12479974-png.png?rlkey=14y72d04ij7ares7est1ndc3x&dl=1' id='b1'/>
</body>
</html>
```

# Style.css

```css
body {


}


canvas{

    position:fixed;

    top:0;

    left:0;

    background:black;

}
img{

    display:none;

}
```

```
Style.js
window.onload = () =>{

let started = false



const canvas =
document.querySelector('canv
as')
const c =
canvas.getContext('2d')
canvas.width = innerWidth
```

```
canvas.height = innerHeight

const mouse = {
  x: 50 ,
  y: 100
}


const colors = ['red', 'yellow',
"blue", "green"]

// Event Listeners
```

```javascript
canvas.addEventListener('touchmove', (event) => {
  mouse.x = event.touches[0].clientX
  mouse.y = event.touches[0].clientY

  // console.log(mouse.x , mouse.y)
})
```

```javascript
canvas.addEventListener('touchstart', (event) => {
  mouse.x = event.touches[0].clientX
  mouse.y = event.touches[0].clientY
  started = true
 // console.log(mouse.x , mouse.y)
})
canvas.addEventListener('touchend', (event) => {
```

```
    mouse.x = undefined
    mouse.y = undefined

 // console.log(mouse.x ,
mouse.y)
})



addEventListener('resize', () =>
{
    canvas.width = innerWidth
    canvas.height = innerHeight
```

```
    init()
  })

// Objects
class Object {
  constructor(x, y, radius, color)
{
    this.x = x
    this.y = y
    this.radius = radius
    this.color = color
```

```
    this.width = 0
    this.height = 0
    this.img = b1
}

draw() {
  c.beginPath()
  c.drawImage(this.img, this.x,
this.y, this.width, this.height)
  c.closePath()
}
```

```
update() {
  this.draw()
  let dy = this.x - mouse.x
  let dx = this.y - mouse.y;
  let dist = Math.hypot(dx,dy)


  if(dist < 100 && this.height <
60){
    this.height++;
    this.width++;
  }
```

```javascript
        if(dist > 100 && this.height >
0 ){

            this.height--;
            this.width--;
        }



    }
}


// Implementation
let objects = []
```

```javascript
function init() {
  objects = []

  for (let i = 0; i < 300; i++) {
    let x =  Math.random() *
(canvas.width - 60);
    let y =  Math.random() *
(canvas.height - 60);
    let color =
colors[Math.floor(Math.rando
m() * colors.length )]
    let r = 1;
```

```
    objects.push(new Object (x,
y, r, color))
  }
}
init()



// Animation Loop
function animate() {

requestAnimationFrame(anim
ate)
```

```
c.clearRect(0, 0, canvas.width,
canvas.height)
  if(!started){
    cross();
  }


  objects.forEach(object => {
   object.update()
   if(mouse.x == undefined &&
object.height > 0){
     object.height--;
```

```javascript
        object.width--;
    }


  })
}


    let x = 0;
    let y = 0;

function cross(){
```

```
if(mouse.x == 50 &&
mouse.y == 100){
    x = 5;
    y = 0
}
if(mouse.x == 375 &&
mouse.y == 100){
    x = -5;
    y = 5;
}
if(mouse.x == 50 &&
mouse.y == 425){
```

```
        y = 0
        x = 5
    }
    if(mouse.x == 375 &&
mouse.y == 425){
        y = -5;
        x = -5;
    }

    mouse.x += x;
    mouse.y += y
```
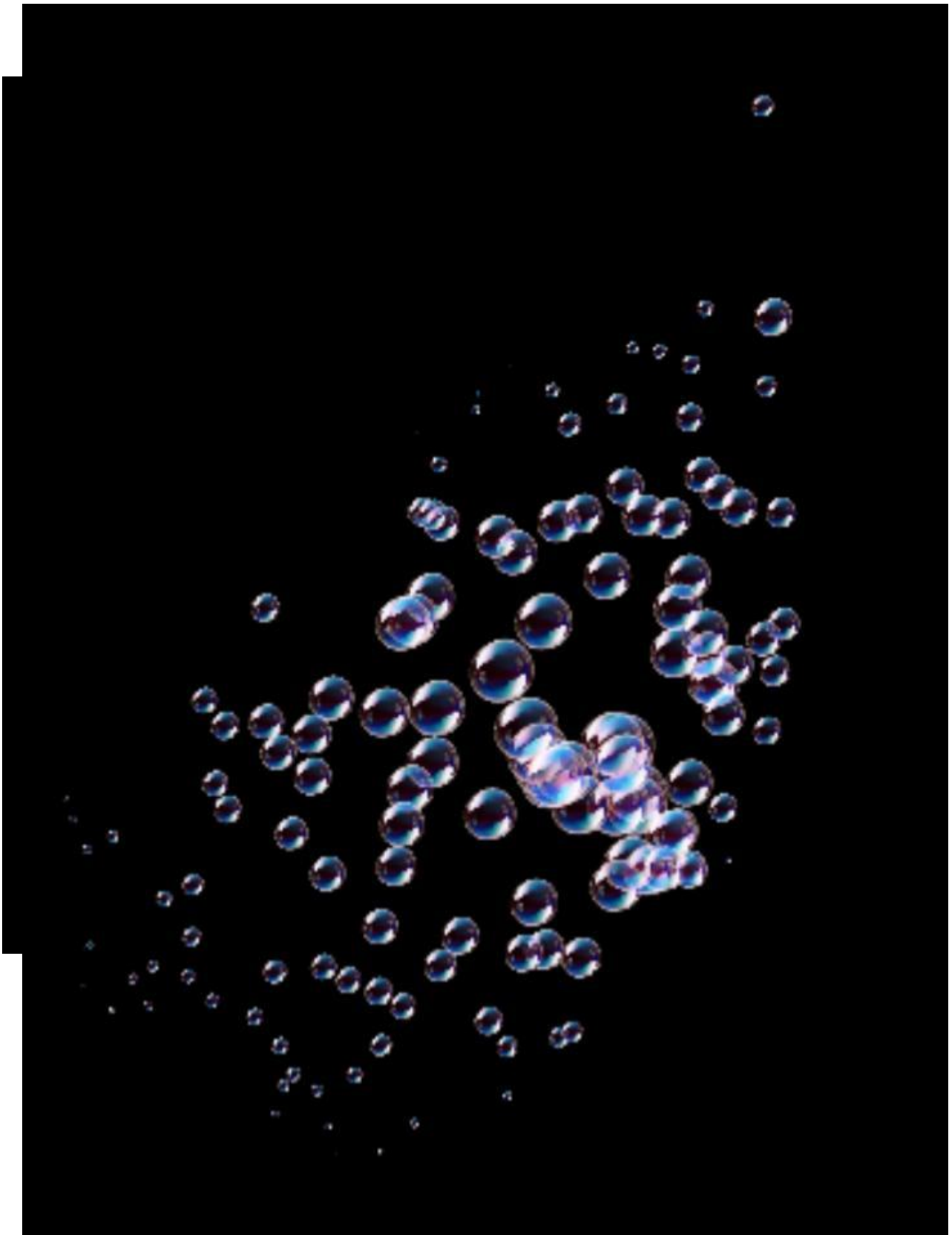
```
}
```

animate()

```
        }
```

It's output is

**My linkdein profile:-**

https://www.linkedin.com/in/aditya-kumar-mishra-24b771305?utm_source=share&utm_campaign=share_via&utm_content=profile&utm_medium=android_app