

**UJIAN AKHIR SEMESTER**

**GRAFIKA KOMPUTER**



**Disusun oleh :**

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**TEKNIK INFORMATIKA**

**POLITEKNIK NEGERI BANYUWANGI**

**TAHUN 2022**

Pembuatan tugas Ujian Akhir Semester untuk membuat objek 2D dan 3D yang ditambahkan ke dalam personal web kita, untuk objek 3D saya membuat 3 objek.

Html :

```
1 <html lang="eng">
2
3 <head>
4   <meta charset="utf-8">
5   <meta name="description" content="Home">
6   <meta name="keywords" content="Portfolio,HTML,CSS,JavaScript">
7   <meta name="author" content="Azza Bruce">
8   <meta name="viewport" content="width=device-width, initial-scale=1, maximum-scale=1.0">
9   <title>Portofolio</title>
10  <link rel="shortcut icon" type="image/x-icon" href="a.jpg" />
11  <link rel="stylesheet" href="https://maxcdn.bootstrapcdn.com/bootstrap/3.3.7/css/bootstrap.min.css">
12  <link href="https://fonts.googleapis.com/css?family=Montserrat|Playfair+Display+SC|Montserrat|Bungee|Berkshire+Swash|Great+Vibes" rel="stylesheet">
13  <link rel="stylesheet" href="https://cdnjs.cloudflare.com/ajax/libs/font-awesome/4.7.0/css/font-awesome.min.css">
14  <script src="https://ajax.googleapis.com/ajax/libs/jquery/1.12.4/jquery.min.js"></script>
15  <script src="https://maxcdn.bootstrapcdn.com/bootstrap/3.3.7/js/bootstrap.min.js"></script>
16  <link rel="stylesheet" type="text/css" href="styles.css">
17 </head>
18
19 <body>
20   <video autoplay muted loop id="myVideo">
21     <source src="http://res.cloudinary.com/dlbvsp0o4/video/upload/v1513003661/welcome_bjclu9.mp4" type="video/mp4">
22   </video>
23   <nav class="navbar navbar-default">
24     <div class="container">
25       <div class="container">
26         <div class="navbar-header">
27           <button type="button" class="navbar-toggle" data-toggle="collapse" data-target="#myNavbar">
28             <span class="icon-bar"></span>
29             <span class="icon-bar"></span>
30             <span class="icon-bar"></span>
31           </button>
32           <a class="navbar-brand" href="#home">Galang</a>
33         </div>
34         <div class="collapse navbar-collapse" id="myNavbar">
35           <ul class="nav navbar-nav navbar-right">
36             <li><a href="#about">About Me</a></li>
37             <li><a href="#objek3D">Projek 3D</a></li>
38           </ul>
39         </div>
40       </div>
41     </nav>
42     <div class="container-fluid bg-1 text-center video">
43       <div class="jumbotron">
44         <div class="welcome">
45
46         <h1>Galang</h1>
47         <h2 class="author-skills">Web Profile</h2>
48         <h4 class="author-degree">Tentang Saya</h4>
49
50         <span><a href="#about"><i class="fa fa-long-arrow-up fa-long-arrow-down" aria-hidden="true"></i></a></span>
51       </div>
52     </div>
53     <canvas id="myCanvas"></canvas>
54     <script>
55       let canvasKita = document.getElementById("myCanvas");
56       canvasKita.width = 300;
57       canvasKita.height = 300;
58       let ctx = canvasKita.getContext("2d");
59
60       let imageData = ctx.getImageData(0, 0, canvasKita.width, canvasKita.height);
61       function lingkaran(x, y, r, w, kanan, kiri, atas, bawah) {
62
63         this.x = x;
64         this.y = y;
65         this.r = r;
66         this.w = w;
67         this.kanan = kanan;
68         this.kiri = kiri;
69         this.atas = atas;
70         this.bawah = bawah;
71
72       this.lingkaran = function() {
```

```

73         ctx.fillStyle = this.w;
74         ctx.beginPath();
75         ctx.arc(this.x + r, this.y + r, this.r, 0, Math.PI * 2);
76         ctx.fill();
77
78         if (this.kanan) {
79             this.x++;
80         }
81         if (this.kiri) {
82             this.x--;
83         }
84         if (this.bawah) {
85             this.y++;
86         }
87         if (this.atas) {
88             this.y--;
89         }
90
91         if (this.x + this.r > canvasKita.width - this.r) {
92             this.kanan = false;
93             this.kiri = true;
94         }
95         else if (this.x == 0) {
96             this.kanan = true;
97             this.kiri = false;
98         }
99         if (this.y + this.r > canvasKita.height - this.r) {
100             this.bawah = false;
101             this.atas = true;
102         } else if (this.y == 0) {
103             this.bawah = true;
104             this.atas = false;
105         }
106     };
107 }
108
109 let lingkaran1 = new lingkaran(200, 100, 50, "grey", true, false, false, true);
110 let lingkaran2 = new lingkaran(100, 50, 25, "pink", true, false, true, false);
111 let lingkaran3 = new lingkaran(100, 300, 75, "yellow", true, false, true, false);
112
113 function bounce() {
114     ctx.save();
115     ctx.clearRect(0, 0, canvasKita.width, canvasKita.height);
116     ctx.globalAlpha = 0.5;
117     lingkaran1.lingkaran();
118     lingkaran2.lingkaran();
119     lingkaran3.lingkaran();
120     ctx.restore();
121 }
122
123 setInterval(bounce, 5);
124 </script>
125 </div>
126
127 <div class="container-fluid bg-2 text-center">
128     <h3 id="about">ABOUT ME</br><span class="underline-headings"></span></h3>
129     <div class="row">
130         <div class="col-sm-6">
131             
132         </div>
133         <div class="col-sm-6 about-me text-center">
134             <p class="bio">Hallo Saya Galang Saya adalah mahasiswa Teknik Informatika Politeknik Negeri Banyuwangi, Keseharian saya yaitu mengampuh perkuliahan di Politeknik Negeri Banyuwangi Sebagai Mahasiswa Aktif <a class="project"
135             </div>
136         </div>
137     </div>
138 </div>
139 <section id="objek3D">
140     <div class="container">
141         <div class="row text-center mb-3">

```

```

141 }
142     setInterval(bounce, 5);
143 </script>
144 </div>
145
146 <div class="container-fluid bg-2 text-center">
147   <h3 id="about">ABOUT ME<br><span class="underline-headings"></span></h3>
148   <div class="row">
149
150     <div class="col-sm-6">
151       
152
153     </div>
154
155     <div class="col-sm-6 about-me text-center">
156
157       <p class="bio">Halo Saya Galang Saya adalah mahasiswa Teknik Informatika Politeknik Negeri Banyuwangi, Keseharian saya yaitu mengampus perkuliahan di Politeknik
158       Negeri Banyuwangi Sebagai Mahasiswa Aktif <a class="project"
159         </div>
160     </div>
161 </section id="objek3D">
162   <div class="container">
163     <div class="row text-center mb-3">
164
165       <br>
166       <h1>INI ADALAH OBJEK 3D</h1>
167       <br><br>
168       <script src="https://threejs.org/build/three.min.js"></script>
169       <script type="text/javascript">
170
171     let width = window.innerWidth;
172     let height = window.innerHeight;
173     const scene = new THREE.Scene();
174     const camera = new THREE.PerspectiveCamera(45, width/height, 0.1, 5);
175     const renderer = new THREE.WebGLRenderer({antialias: true});
176
177     renderer.setSize(width, height);
178     document.body.appendChild(renderer.domElement);
179     camera.position.z = 5;
180     const geometry = new THREE.SphereGeometry( 1, 2, 16 );
181
182     const loader = new THREE.TextureLoader();
183     const material = new THREE.MeshBasicMaterial({
184       color: "pink",
185       map: loader.load('https://i.postimg.cc/DwGBFJpz/ling-night-shade-skin-mobile-legends.jpg'),
186     });
187     const sphere = new THREE.Mesh( geometry, material );
188
189     const sphere = new THREE.Mesh( geometry, material );
190     scene.add( sphere );
191
192
193 window.addEventListener('resize', function() {
194   renderer.setSize(width, height);
195   camera.aspect = width / height;
196   camera.updateProjectionMatrix();
197 });
198 function update() {
199   // mesh.rotation.x += 0.01;
200   sphere.rotation.x += 0.05;
201   requestAnimationFrame(update);
202   renderer.render(scene, camera);
203 }
204 update();
205
206 </script>
207 </div>
208 </div>
209 </div>
210 </section>

```

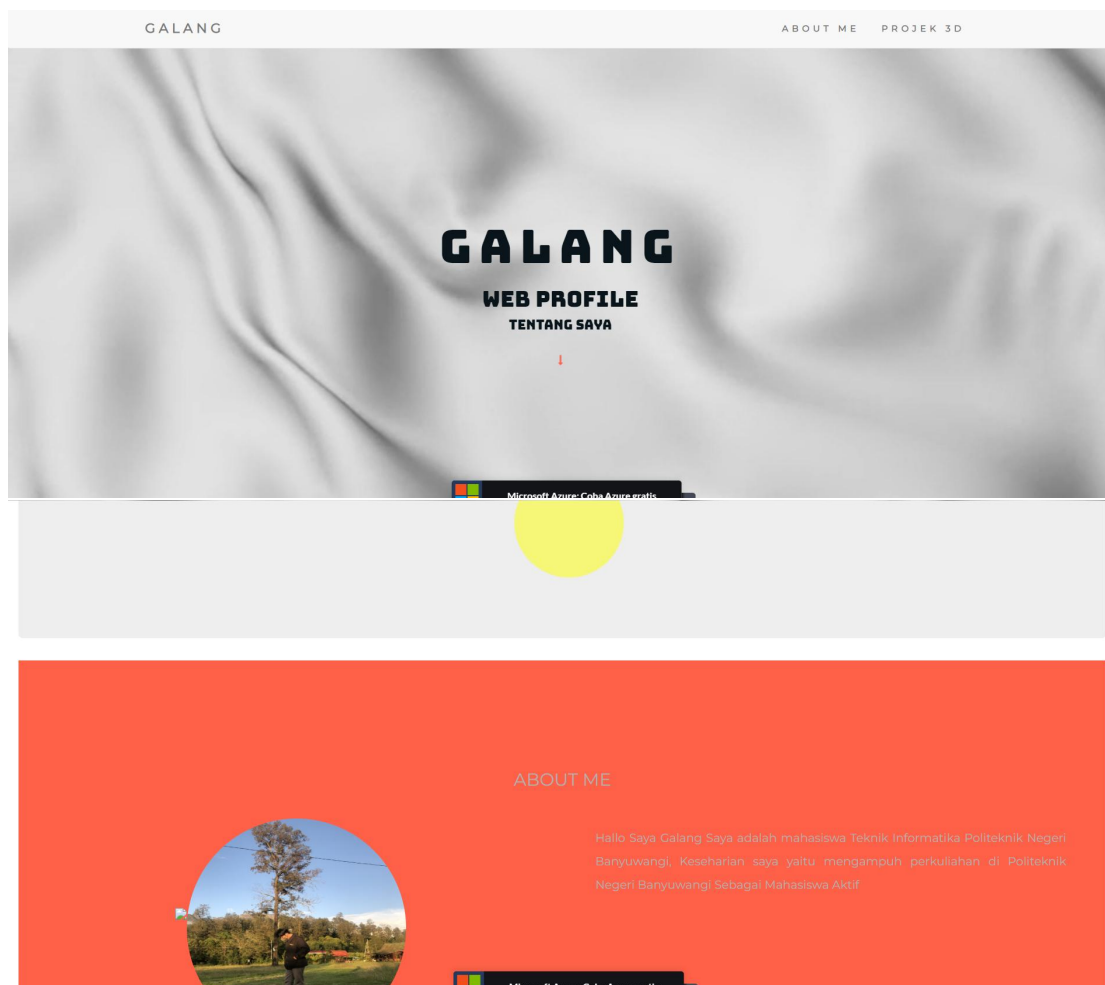
Js:

```

1  src="//cdn.rawgit.com/mrdoob/three.js/master/build/three.min.js"
2
3
4  const canvaskita = document.getElementById("canvasku");
5  let width = window.innerWidth;
6  let height = window.innerHeight;
7  const scene = new THREE.Scene();
8  const camera = new THREE.PerspectiveCamera(45, width/height, 0.1, 5);
9  const renderer = new THREE.WebGLRenderer({antialias: true});
10 const renderer = new THREE.WebGLRenderer( { canvas});
11
12 renderer.setSize(width, height);
13 document.body.appendChild(renderer.domElement);
14 camera.position.z = 5;
15 const geometry = new THREE.SphereGeometry( 1, 2, 16 );
16
17     const loader = new THREE.TextureLoader();
18     const material = new THREE.MeshBasicMaterial({
19         color: "pink",
20         map: loader.load("https://i.postimg.cc/DwG8F3pz/ling-night-shade-skin-mobile-legends.jpg"),
21     });
22     const sphere = new THREE.Mesh( geometry, material );
23     scene.add( sphere );
24
25
26 window.addEventListener('resize', function() {
27     renderer.setSize(width, height);
28     camera.aspect = width / height;
29     camera.updateProjectionMatrix();
30 });
31 function update() {
32     // mesh.rotation.x += 0.01;
33     sphere.rotation.x += 0.05;
34     requestAnimationFrame(update);
35     renderer.render(scene, camera);
36 }
37 update();
38

```

Output:



INI ADALAH OBJEK 3D



Microsoft Azure: Coba Azure gratis