

Assignment - 4

Ques-1 : Event capturing and event bubbling.

Ans :

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Event Capturing Example</title>
  <style>
    #school {
      padding: 40px; background-color: #239; display: flex;
      align-items: center; justify-content: center;
    }

    #college {
      width: 150px; height: 150px; background-color: #106;
      display: flex; align-items: center; justify-content: center;
    }

    #university { width: 100px; height: 100px; background-color: #007bff;
      display: flex; align-items: center; justify-content: center;
      color: white; font-weight: bold;
    }
  </style>
</head>
<body>

  <h1 style="text-align: center; color: #003366;">JavaScript Event Capturing</h1>
```

```
<h1 style="text-align: center; color: #003366;">JavaScript Event Capturing</h1>

<div id="school">
  <div id="college">
    <div id="university">Click Me!</div>
  </div>
</div>

<script>
  const school = document.getElementById('school');
  const college = document.getElementById('college');
  const university = document.getElementById('university');

  // ADD EVENT LISTENERS (Capturing phase)
  school.addEventListener('click', () => {
    console.log("SCHOOL DIV CLICKED");
  }, true);
  college.addEventListener('click', () => {
    console.log("COLLEGE DIV CLICKED");
  }, true);
  university.addEventListener('click', () => {
    console.log("UNIVERSITY DIV IS CLICKED");
  }, true);
</script>
</body>
</html>
```

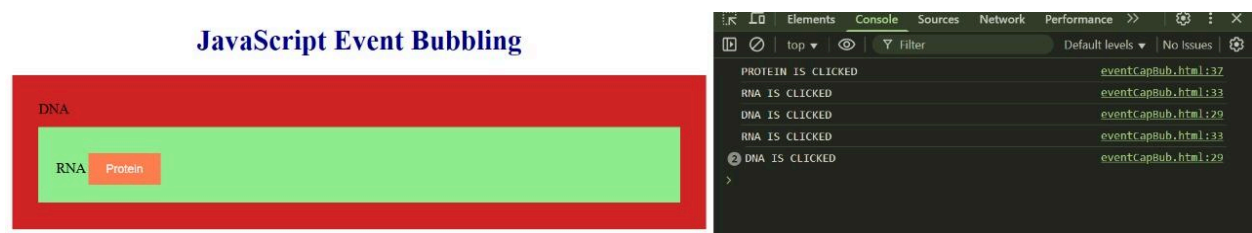
output :-



Event Bubbling:-



Output:-



Ques-2 : Get the same output without event capturing/bubbling.

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8" />
  <meta name="viewport" content="width=device-width, initial-scale=1.0"/>
  <title>No Bubbling or Capturing</title>
</head>
<body>
  <h2>Click Any Role</h2>

  <div id="ceo" style="padding: 20px; background-color: #856b1d;">
    <div id="boss" style="padding: 20px; background-color: #611fa9;">
      <button id="manager" style="padding: 10px 20px; background-color: #798586; border: none;">
        Manager
      </button>
    </div>
  </div>
</div>

<script>
  const ceo = document.getElementById("ceo");
  const boss = document.getElementById("boss");
  const manager = document.getElementById("manager");

  ceo.addEventListener("click", function (e) {
    if (e.currentTarget === e.target) {
      console.log("ceo");
    }
  });
```

```
    boss.addEventListener("click", function (e) {
      if (e.currentTarget === e.target) {
        console.log("boss");
      }
    });

    manager.addEventListener("click", function () {
      console.log("manager");
    });
  </script>
</body>
</html>
```

Output:-

Click Any Role

