Access to Event Object

- **`event` variable (HTML):**

  ```
  <div onclick="mouseClick(event);">
  ```

- **Passed as argument to function (DOM/Firefox/Chrome):**

  ```
  element.onclick = mouseClick;
  function mouseClick(evt) {
      ...
      x = evt.pageX;
      ...
  }
  ```

- **Global variable (DOM/IE):**

  ```
  element.onclick = mouseClick;
  function mouseClick() {
      ...
      x = window.event.pageX;
      ...
  }
  ```

Draggable Rectangle

```
<style type="text/css">
  #div1 {
    position: absolute;
  }
</style>
...
<div id="div1" onmousedown="mouseDown(event);"
     onmousemove="mouseMove(event);"
     onmouseup="mouseUp(event);">Drag Me!</div>
```

Dragging Application

```javascript
isMouseDown = false;
function mouseDown(event) {
    prevX = event.pageX;
    prevY = event.pageY;
    isMouseDown = true;
}
function mouseMove(event) {
    if (!isMouseDown) {
        return;
    }
    var element = document.getElementById("div1");
    element.style.left = (element.offsetLeft +
            (event.pageX - prevX)) + "px";
    element.style.top = (element.offsetTop +
            (event.pageY - prevY)) + "px";
    prevX = event.pageX;
    prevY = event.pageY;
}
function mouseUp(event) {
    isMouseDown = false;
}
```

Cleaner Implementation

```
<body>
  <div id="div1">Drag Me!</div>
  <div id="div2">Drag Me Too!</div>

  <script type="text/javascript" src="dragger.js" />
  <script type="text/javascript">
  //<![CDATA[
      new Dragger("div1");
      new Dragger("div2");
  //]]>
  </script>
</body>}
```

Dragger.js, part 1

```
function Dragger(id) {
    this.isMouseDown = false;
    this.element = document.getElementById(id);
    var obj = this;
    this.element.onmousedown = function(event) {
        obj.mouseDown(event);
    }
}
Dragger.prototype.mouseDown = function(event) {
    var obj = this;
    this.oldMoveHandler = document.body.onmousemove;
    document.body.onmousemove = function(event) {
        obj.mouseMove(event);
    }
    this.oldUpHandler = document.body.onmouseup;
    document.body.onmouseup = function(event) {
        obj.mouseUp(event);
    }
    this.prevX = event.pageX;
    this.prevY = event.pageY;
    this.isMouseDown = true;
}
```

Dragger.js, part 2

```
Dragger.prototype.mouseMove = function(event) {
    if (!this.isMouseDown) {
        return;
    }
    this.element.style.left = (this.element.offsetLeft
            + (event.pageX - this.prevX)) + "px";
    this.element.style.top = (this.element.offsetTop
            + (event.pageY - this.prevY)) + "px";
    this.prevX = event.pageX;
    this.prevY = event.pageY;
}
Dragger.prototype.mouseUp = function(event) {
    this.isMouseDown = false;
    document.body.onmousemove = this.oldMoveHandler;
    document.body.onmouseup = this.oldUpHandler;
}
```

Which Element Gets Event?

```
<body>
  <table>
    <tr>
      <td>xyz</td>
    </tr>
  </table>
</body>
```

Click on this