

Chapter 2

HTML

```
<html>
```

```
<head>
```

```
<title>An example HTML document</title>
```

```
</head>
```

```
<body>
```

```
<p>Hello world!<p>
```

```
</body>
```

```
</html>
```

Chapter 2

HTML Document Structure

```
graph LR; html["<html>"] --- head["<head>"]; html --- body["<body>"]; html --- html_end["</html>"]; head --- title["<title>document title</title>"]; head --- head_end["</head>"]; body --- content["content"]; body --- body_end["</body>"];
```

The diagram illustrates the structure of an HTML document using nested brackets. The outermost level is the `<html>` tag, which contains the `<head>` and `<body>` tags, and ends with `</html>`. The `<head>` tag contains the `<title>` tag (with the text *document title*) and ends with `</head>`. The `<body>` tag contains the `content` and ends with `</body>`.

Chapter 2

Poorly Structured HTML Document

```
<html><head><title>An example HTML document</title>  
</head>  
<body> <p>Hello world!<p></body></html>
```

Chapter 2

HTML Document with JavaScript

```
<head>
<title>JavaScript Greeting</title>
<script type = "text/javascript">
//Display a greeting
alert("Hello World!");
</script>
</head>
```

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HTML Document with JavaScript Prompt

```
<head>
<title>JavaScript User Name</title>
<script type="text/javascript">
//initialize a variable with a null value
var name = null;
// Ask user for their name
name = prompt("Please enter your first name", " ");
//Greet the user
alert("Welcome " + name);
</script>
</head>
```

Chapter 2

A Java Applet

```
import java.awt.*;
import java.applet.*;

public class Example_Applet extends Applet {

    String message;

    public void init() {
        message="My first Java applet";
    }

    public void paint(Graphics g) {
        g.setColor(Color.blue);
        g.drawString(message, 50, 60 );
    }
}
```

The HTML applet Tag

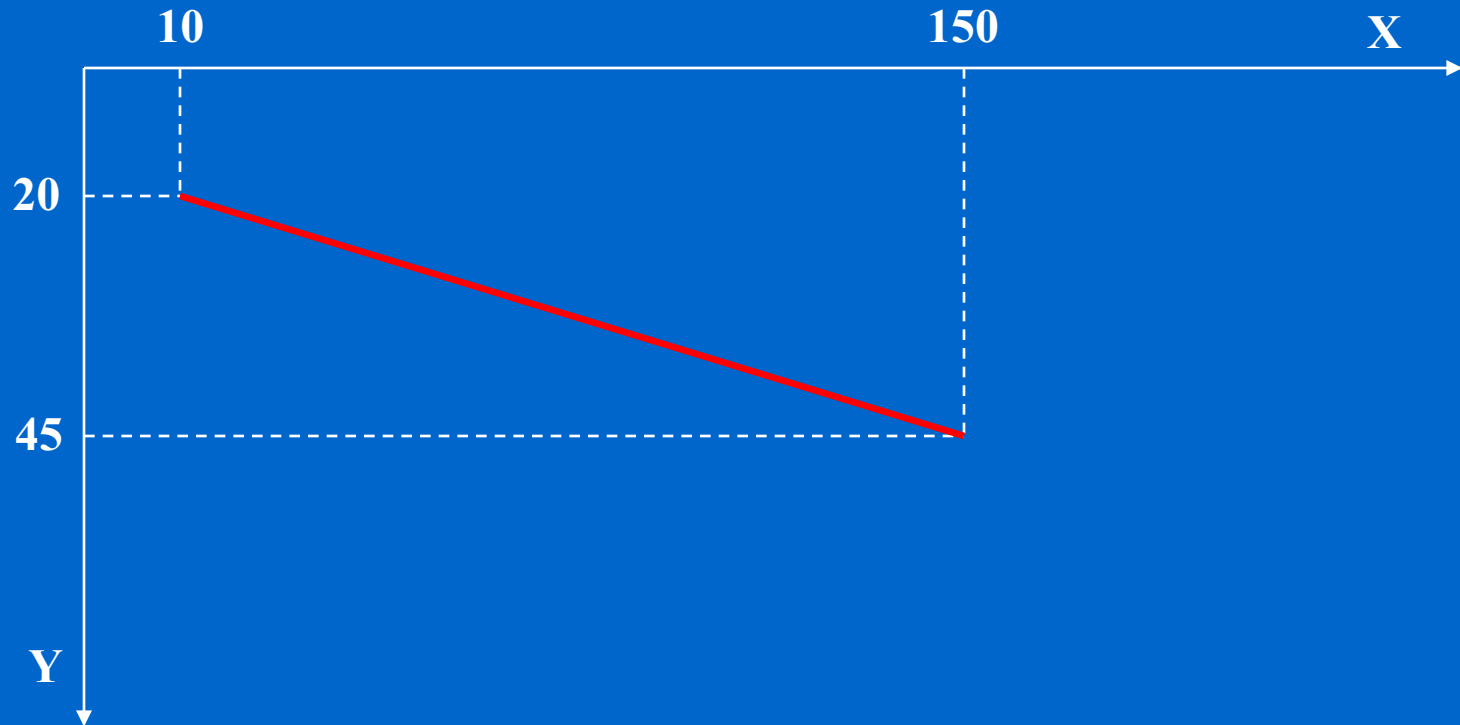
```
<html>

  <head>
    <title>The Einstein Applet</title>
  </head>

  <body>
    <applet code="Einstein.class" width=350 height=175>
    </applet>
  </body>

</html>
```

Drawing a Line

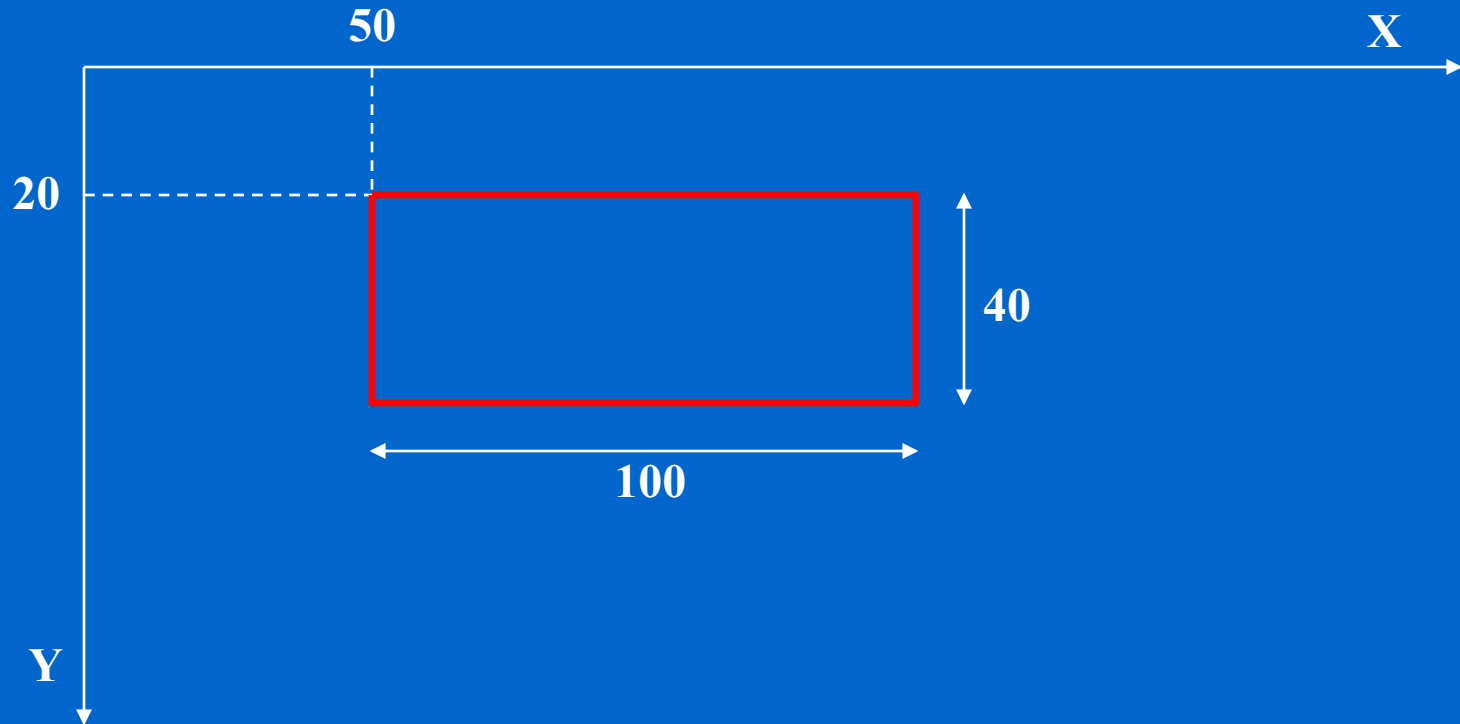


```
page.drawLine (10, 20, 150, 45) ;
```

or

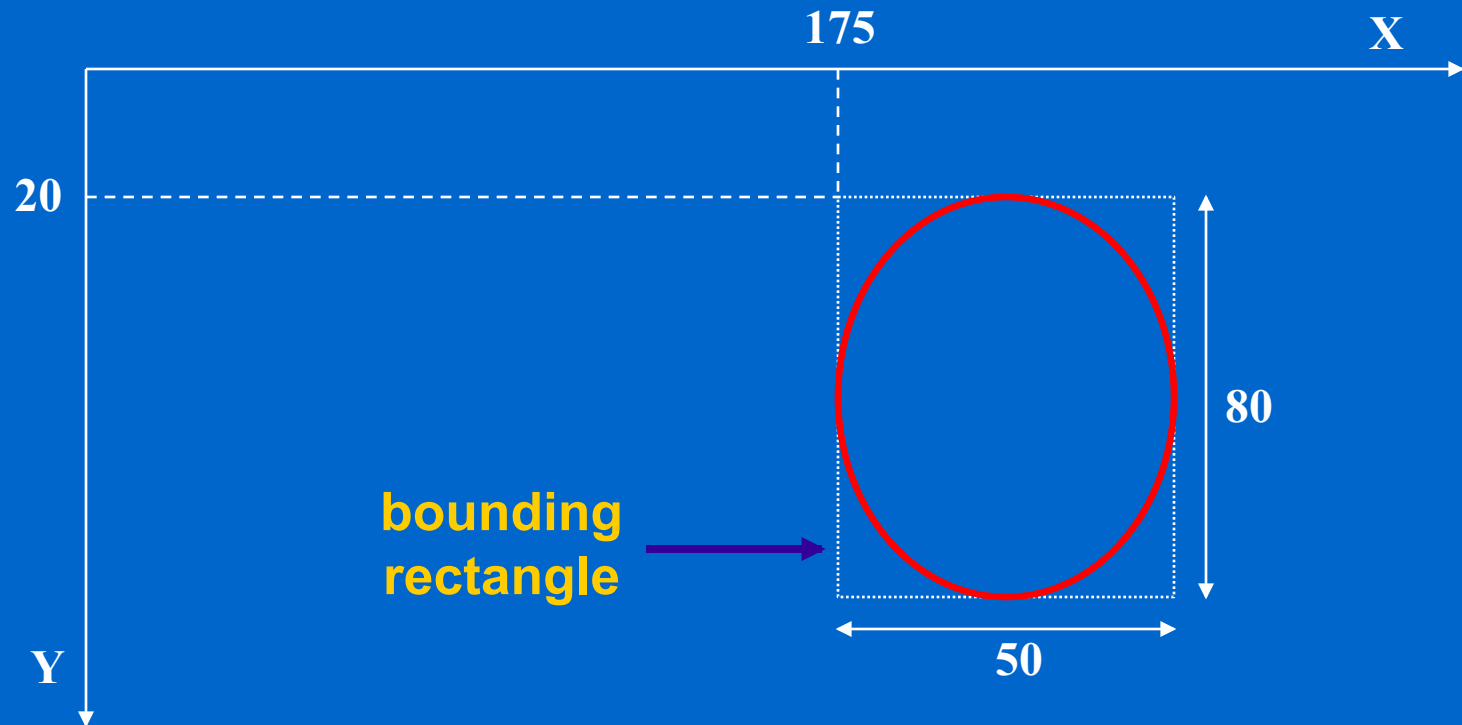
```
page.drawLine (150, 45, 10, 20) ;
```


Drawing a Rectangle



```
page.drawRect (50, 20, 100, 40);
```

Drawing an Oval



```
page.drawOval (175, 20, 50, 80) ;
```

```
import java.awt.*;
import java.applet.*;

public class Shapes_Color extends Applet {

    public void paint(Graphics g) {
        setBackground (Color.darkGray);
        g.setColor(Color.pink);
        g.drawRect(50, 50, 40, 40);
        g.setColor(Color.blue);
        g.fillRect(100, 100, 150, 150);
        g.setColor(Color.green);
        g.drawLine(20, 20, 300, 20);
        g.setColor(Color.red);
        g.fillOval(250, 250, 50, 50);
        g.drawArc( 10,10, 50, 30,20,110);
    }
}
```

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HTML Tags

- Heading Tags: `<h1>` `<h2>` `<h3>` `<h4>` `<h5>` `<h6>`
- Horizontal Rule Tag: `<hr>`
can include size and align attributes
- Paragraph Tag: `<p></p>`
- Comment Tag: `<!--comment-->`
- List Tags: `<ul></ul>` bulleted list
`<ol></ol>` numbered list
`<li></li>` item in the list

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Hyperlinks, Tables, and Images

- Hyperlink Tag: `<a href= " page.htm" ></a>`
- Table Tags: `<table></table>` table
`<th></th>` table header
`<tr></tr>` table row
`<td></td>` table data cell
The `<table>` tag can include border, cellpadding, and width attributes
- Image Tag: `<image src=" file name" >`
can include border, alt, height, and and width attributes

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Style Sheets

- Used to define the type, paragraph, and page formats for an HTML document. Gives HTML documents a consistent appearance because they override the browser settings.
- Style sheets can include rules and classes, a linked style sheet can include only rules.
- Embedded style sheet defined with tag:
`<style type="text/css"></style>`
- Linked style sheet is a separate file with a .css extension applied with the tag:
`<link rel="stylesheet" href "style.css" type="text/css"> </link>`