

# JAVA – Constructor Overloading [2022]

---

[29.08.2022]

---

**Techno India College of Technology**

**Authored by:** Abu Taha Md Farhad

**Roll:** 31401221052

**Reg No:** 213141001210016 OF 2021-22

**Stream:** BCA 2<sup>nd</sup> year

**Subject:** Object Oriented Programming [BCAC391]



---

# Write a program in Java to demonstrate the Constructor Overloading feature of an Object Oriented Programming Language:

## Domelement.java:

```
import java.util.Arrays;
import java.util.stream.Collectors;

public class Domelement {
    private final String tag;
    private final String content;
    protected boolean style;
    protected int width;
    protected int height;

    protected int borderTop;
    protected int borderRight;
    protected int borderBottom;
    protected int borderLeft;

    Domelement(String t){
        tag = t;
        content = "";
    }
    Domelement(String t, String c){
        tag = t;
        content = c;
    }

    String dom() {
        String temp_style = style? " style=\"width: "+width+"px; " +
            "height: "+height+"px; " +
            "border-top: "+borderTop+"px; " +
            "border-right: "+borderRight+"px; " +
            "border-bottom: "+borderBottom+"px; " +
            "border-left: "+borderLeft+"px;\"" : "";

        String temp_content = Arrays.stream(content.split("\n"))
            .collect(Collectors.joining("\n\t"));
        return "<"+tag+temp_style+">\n\t"+temp_content+"\n/>"+tag+">\n";
    }
}
```

---

## Style\_css\_border.java:

```
public class Style_css_border {

    Style_css_border(Domelement d) {
        d.borderTop = 1;
        d.borderRight = 1;
        d.borderBottom = 1;
        d.borderLeft = 1;
        d.style = true;
    }
    Style_css_border(Domelement d, int trbl) {
        d.borderTop = trbl;
        d.borderRight = trbl;
        d.borderBottom = trbl;
        d.borderLeft = trbl;
        d.style = true;
    }
    Style_css_border(Domelement d, int tb, int rl) {
        d.borderTop = tb;
        d.borderRight = rl;
        d.borderBottom = tb;
        d.borderLeft = rl;
        d.style = true;
    }
    Style_css_border(Domelement d, int t, int r, int b, int l) {
        d.borderTop = t;
        d.borderRight = r;
        d.borderBottom = b;
        d.borderLeft = l;
        d.style = true;
    }
}
```

## Style\_css\_width.java:

```
public class Style_css_width {
    Style_css_width(Domelement d, int w){
        d.width = w;
        d.style = true;
    }
}
```

## Style\_css\_height.java:

```
public class Style_css_height {
    Style_css_height(Domelement d, int h){
        d.height = h;
        d.style = true;
    }
}
```

---

## Html.java:

```
public class Html {
    public static Domelement html, head, body, title, div1, div2, div3, span1;
    Html() {
        div1 = new Domelement("div", "i am div1.");
        new Style_css_border(div1, 5); // overloaded constructor to set all side
                                         // border as 5px

        new Style_css_width(div1, 100);
        new Style_css_height(div1, 100);

        div2 = new Domelement("div", "i am div2.");
        new Style_css_border(div2, 5, 10); // overloaded constructor to set border
                                         // of top, bottom as 5px
                                         // and right, left as 10px

        div3 = new Domelement("div", "i am div3.");
        new Style_css_border(div3, 2, 4, 8, 10); // overloaded constructor to set
                                         // all different border width of
                                         // all side

        span1 = new Domelement("span");
        new Style_css_border(span1); // default overloaded constructor to set all
                                         // side border as 1px

        new Style_css_width(div1, 500);
        new Style_css_height(div1, 200);

        title = new Domelement("title", "This is title");

        head = new Domelement("head", title.dom());
        body = new Domelement("body", div1.dom() + div2.dom() + div3.dom()
                                   + span1.dom());
        html = new Domelement("html", head.dom() + body.dom());
    }
}
```

## Main.java:

```
public class Main {  
    public static void main(String[] args) {  
        new Html();  
        System.out.println(Html.html.dom());  
    }  
}
```

## Output:



```
Farhad ~ >> javac Main.java  
Farhad ~ >> java Main  
<html>  
  <head>  
    <title>  
      This is title  
    </title>  
  </head>  
  <body>  
    <div style="width: 500px; height: 200px; border-top: 5px; border-right: 5px;  
border-bottom: 5px; border-left: 5px;">  
      i am div1.  
    </div>  
    <div style="width: 0px; height: 0px; border-top: 5px; border-right: 10px; border-  
bottom: 5px; border-left: 10px;">  
      i am div2.  
    </div>  
    <div style="width: 0px; height: 0px; border-top: 2px; border-right: 4px; border-  
bottom: 8px; border-left: 10px;">  
      i am div3.  
    </div>  
    <span style="width: 0px; height: 0px; border-top: 1px; border-right: 1px;  
border-bottom: 1px; border-left: 1px;">  
  </span>  
  </body>  
</html>
```