

```
1
2 import com.cete.dynamicpdf.*;
3 import com.cete.dynamicpdf.pageelements.Label;
4 import com.cete.dynamicpdf.pageelements.Image;
5 import com.cete.dynamicpdf.pageelements.TextArea;
6 import com.cete.dynamicpdf.pageelements.OrderedList;
7 import com.cete.dynamicpdf.pageelements.OrderedSubList;
8 import com.cete.dynamicpdf.pageelements.PageNumberingLabel;
9 import java.io.IOException;
10 import javax.servlet.ServletConfig;
11 import javax.servlet.ServletException;
12 import javax.servlet.ServletOutputStream;
13 import javax.servlet.http.HttpServlet;
14 import javax.servlet.http.HttpServletRequest;
15 import javax.servlet.http.HttpServletResponse;
16 import java.io.FileNotFoundException;
17
18
19 public class TaggedPdfWithStructureElements extends HttpServlet {
20
21     ServletOutputStream sOut;
22
23     public void init(ServletConfig config) throws ServletException {
24         super.init(config);
25     }
26
27     public void doGet(HttpServletRequest req, HttpServletResponse res)
28         throws IOException, ServletException {
29
30         sOut = res.getOutputStream();
31
32         // Create a PDF document
33         Document document = new Document();
34         document.setCreator("TaggedPdfWithStructureElements.aspx");
35         document.setAuthor("ceTe Software");
36         document.setTitle("TaggedPdfWithStructureElements");
37
38         // Specify document as a tagged PDF
39         document.setTag(new TagOptions());
40
41         // Create a page and add it to the document
42         Page page = new Page();
43         document.getPages().add(page);
44
45         // Create a text area
46         TextArea textArea1 = new TextArea("This is Paragraph one", 0, 0, 512, 100, Font.getHelvetica(), 15f);
47         textArea1.setAlign(TextAlign.CENTER);
48
49         // Create a structure element of tag type section
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50     StructureElement parentStrucutreElement = new StructureElement(TagType.getSection());
51
52     // Create a structure element
53     StructureElement structureElement1 = new StructureElement(TagType.getParagraph());
54     structureElement1.setIncludeDefaultAttributes(true);
55
56     // Set structure element parent
57     structureElement1.setParent(parentStrucutreElement);
58
59     // Set strucute element order
60     structureElement1.setOrder(2);
61
62     // Set structure element to the text area
63     textArea1.setTag(structureElement1);
64
65     // Create a text area
66     TextArea textArea2 = new TextArea("This is Paragraph two", 0, 50, 512, 100, Font.getHelvetica(), 15f);
67     textArea2.setAlign(TextAlign.CENTER);
68
69     // Create a structure element
70     StructureElement structureElement2 = new StructureElement(TagType.getParagraph());
71     structureElement2.setIncludeDefaultAttributes(true);
72
73     // Set structure element parent
74     structureElement2.setParent(parentStrucutreElement);
75
76     // Set strucute element order
77     structureElement2.setOrder(3);
78
79     // Set structure element to the text area
80     textArea2.setTag(structureElement2);
81
82     // Create a text area
83     TextArea textArea3 = new TextArea("This is Paragraph three", 0, 100, 512, 100, Font.getHelvetica(), 15f);
84     textArea3.setAlign(TextAlign.CENTER);
85
86     // Create a structure element
87     StructureElement structureElement3 = new StructureElement(TagType.getParagraph());
88     structureElement3.setIncludeDefaultAttributes(true);
89
90     // Set structure element parent
91     structureElement3.setParent(parentStrucutreElement);
92
93     // Set strucute element order
94     structureElement3.setOrder(1);
95
96     // Set structure element to the text area
97     textArea3.setTag(structureElement3);
98
```

```
99      // Add text areas to the page
100      page.getElements().add(textArea1);
101      page.getElements().add(textArea2);
102      page.getElements().add(textArea3);
103      try {
104          // Create an image
105          Image image = new Image(getServletContext().getRealPath("/images/DPDFLogo.png"), 180f, 150f, 0.24f);
106          image.setHeight(200);
107          image.setWidth(200);
108
109          // Create a structure element
110          StructureElement imageStructureElement = new StructureElement(TagType.getFigure());
111          imageStructureElement.setIncludeDefaultAttributes(true);
112          imageStructureElement.setAlternateText("DynamicPDF Logo");
113
114          // Set structure element to the image
115          image.setTag(imageStructureElement);
116
117          // Add image to the page
118          page.getElements().add(image);
119      }
120      catch (FileNotFoundException ex1) {
121          System.err.println("Image file not found :"+ex1);
122      }
123      // Create an ordered list
124      OrderedList orderedList = new OrderedList(165, 400, 300, 300, Font.getHelvetica(), 12);
125
126      // Add items to the ordered list
127      orderedList.getListItems().add("Fruits");
128      orderedList.getListItems().add("Vegetables");
129
130      // Tag the ordered list with the structure element
131      orderedList.setTag(new StructureElement(TagType.getList()));
132
133      // Create an ordered sublist and add items to it
134      OrderedSubList orderedSubList =
orderedList.getListItems().getItem(0).getSubLists().addOrderedSubList(NumberingStyle.ROMAN_UPPERCASE);
135      orderedSubList.getListItems().add("Citrus");
136      orderedSubList.getListItems().add("Non-Citrus");
137
138      // Tag the item one child lists with the structure element
139      orderedList.getListItems().getItem(0).setTag(new StructureElement(TagType.getList(), true));
140
141      // Tag the item one body with the structure element
142      orderedList.getListItems().getItem(0).setBodyTag(new StructureElement(TagType.getListBody(), true));
143
144      // Tag the item one bullet with the structure element
145      orderedList.getListItems().getItem(0).setBulletTag (new StructureElement(TagType.getLabel(), true));
146
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147 // Tag the item one with the structure element
148 orderedList.getListItems().getItem(0).setListItemTag(new StructureElement(TagType.getListItem(), true));
149
150 // Tag the sublist with the structure element
151 orderedSubList.setTag(new StructureElement(TagType.getList(), true));
152
153 // Create an ordered sublist and add items to it
154 OrderedSubList orderedSubList2 =
orderedList.getListItems().getItem(1).getSubLists().addOrderedSubList(NumberingStyle.ROMAN_UPPERCASE);
155 orderedSubList2.getListItems().add("Potato");
156 orderedSubList2.getListItems().add("Beans");
157
158 // Create an ordered sublist and add items to it
159 OrderedSubList subOrderedSubList =
orderedSubList.getListItems().getItem(0).getSubLists().addOrderedSubList(NumberingStyle.ROMAN_LOWERCASE);
160 subOrderedSubList.getListItems().add("Lime");
161 subOrderedSubList.getListItems().add("Orange");
162
163 // Create an ordered sublist and add items to it
164 OrderedSubList subOrderedSubList2 =
orderedSubList.getListItems().getItem(1).getSubLists().addOrderedSubList(NumberingStyle.ROMAN_LOWERCASE);
165 subOrderedSubList2.getListItems().add("Mango");
166 subOrderedSubList2.getListItems().add("Banana");
167
168 // Create an ordered sublist and add items to it
169 OrderedSubList subOrderedSubList3 =
orderedSubList2.getListItems().getItem(0).getSubLists().addOrderedSubList(NumberingStyle.ROMAN_LOWERCASE);
170 subOrderedSubList3.getListItems().add("Sweet Potato");
171
172 // Create an ordered sublist and add items to it
173 OrderedSubList subOrderedSubList4 =
orderedSubList2.getListItems().getItem(1).getSubLists().addOrderedSubList(NumberingStyle.ROMAN_LOWERCASE);
174 subOrderedSubList4.getListItems().add("String Bean");
175 subOrderedSubList4.getListItems().add("Lima Bean");
176
177 // Add ordered list to the page
178 page.getElements().add(orderedList);
179
180 // Create a Page numbering label
181 PageNumberingLabel pageNumberingLabel = new PageNumberingLabel("Page %%CP%% of %%TP%%", 0, 680, 512, 12,
Font.getHelvetica(),
182     12, TextAlign.CENTER);
183
184 // Create a artifact and add type
185 Artifact artifact = new Artifact();
186 artifact.setType(ArtifactType.PAGINATION);
187
188 // Set artifact to the page numbering label
189 pageNumberingLabel.setTag(artifact);
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190
191     // Add page numbering label to the page
192     page.getElements().add(pageNumberingLabel);
193
194     // Outputs the document to current web page.
195     document.drawToWeb(req, res , sOut, "TaggedPdfWithStructureElements.pdf");
196     sOut.close();
197 }
198
199 }
```