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1
2 <!DOCTYPE html>
3 <html>
4 <head>
5
6 <title>Utah Water Resources</title>
7
8 <meta http-equiv="Content-Type" content="text/html; charset=utf-8">
9 <meta name="viewport" content="initial-scale=1, maximum-scale=1,user-scalable=no">
10
11 <link rel="stylesheet" href="https://js.arcgis.com/3.16/dijit/themes/claro/claro.css">
12 <link rel="stylesheet" href="https://js.arcgis.com/3.16/esri/css/esri.css">
13
14 <style>
15     html, body {
16         width: 98%;
17         margin: 1%;
18         height: 97%;
19     }
20
21     #content {
22         width: 100%;
23         height: 100%;
24         margin: 0;
25     }
26
27     #mapDiv {
28         width:100%;
29         height:100%
30     }
31
32
33     #rightPane {
34         width: 20%;
35     }
36
37     #legendPane {
38         border: solid #97DCF2 1px;
39     }
40     #search {
41         display: block;
42         position: absolute;
43         z-index: 2;
44         top: 20px;
45         left: 74px;
46     }
47
48     /* Change color of icons to match bar chart and selection symbol */
49     .esriPopup.dark div.titleButton,
50     .esriPopup.dark div.titlePane .title,
51     .esriPopup.dark div.actionsPane .action {
52         color: #A4CE67;
53     }
54
55     /* Additional customizations */
56     .esriPopup.dark .esriPopupWrapper {
57         border: none;
58     }
59
60     .esriPopup .contentPane {
61         text-align: center;
62     }
63
64     .esriViewPopup .gallery {
65         margin: 0 auto;
```

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66     }
67
68     #BasemapToggle {
69     position: absolute;
70     top: 20px;
71     right: 20px;
72     z-index: 50;
73     }
74
75 </style>
76
77 <script src="http://js.arcgis.com/3.16/"></script>
78 <script>
79     /*
80     This script uses dojox.charting to create a bar chart in a popup window when a river features
81     is selected. The graph data are the 12 months of river flow for the Great Salt Lake Watershed
82     Boundary. The URL for this dojo chart source code is: https://dojotoolkit.org/reference-
83     guide/1.10/dojox/charting.html
84
85     A query API is also being used to query the attribute table of the rivers feature class for
86     the river name, select it, and then make it yellow. It is a QueryTask ArcGIS API for JavaScript:
87     https://developers.arcgis.com/javascript/3/jsapi/querytask-amd.html
88
89     An ESRI map service is providing the basemap feature, legend features and the basemap toggle.
90
91     */
92
93     var map;
94     var executeQueryTask;
95
96     require([
97         "esri/map",
98         "esri/dijit/Scalebar",
99         "esri/dijit/Popup", "esri/dijit/PopupTemplate",
100        "esri/layers/FeatureLayer",
101        "esri/dijit/Legend",
102        "esri/SpatialReference",
103        "dojo/_base/array",
104        "dojo/parser",
105        "esri/dijit/BasemapToggle",
106        "esri/symbols/SimpleFillSymbol", "esri/Color",
107        "dojo/dom-class", "dojo/dom-construct", "dojo/on",
108        "dojox/charting/Chart", "dojox/charting/themes/BlueDusk",
109        "esri/layers/ArcGISDynamicMapServiceLayer",
110        "esri/tasks/QueryTask",
111        "esri/tasks/query",
112        "esri/symbols/SimpleLineSymbol",
113        "dojo/_base/Color",
114
115        "dijit/layout/BorderContainer",
116        "dijit/layout/ContentPane",
117        "dijit/layout/AccordionContainer",
118        "dojo/domReady!"
119    ], function (
120        Map,
121        Scalebar,
122        Popup, PopupTemplate,
123        FeatureLayer,
124        Legend,
125        SpatialReference,
126        arrayUtils,
127        parser,
128        BasemapToggle,
129        SimpleFillSymbol, Color,
130        domClass, domConstruct, on,

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126     Chart, theme,
127     ArcGISDynamicMapServiceLayer,
128     QueryTask,
129     Query,
130     SimpleLineSymbol,
131     Color
132 ) {
133     var fill = new SimpleFillSymbol("solid", null, new Color("#A4CE67"));
134     var popup = new Popup({
135         fillSymbol: fill,
136         titleInBody: false
137     }, domConstruct.create("div"));
138     //Add the dark theme which is customized further in the <style> tag at the top of this page
139 //     domClass.add(popup.domNode, "dark");
140
141     map = new Map("mapDiv", {
142         basemap: "topo",
143         center: [-110.6, 42.0],
144         zoom: 8,
145         infoWindow: popup
146     });
147     var scalebar = new Scalebar({
148         map: map,
149         scalebarUnit: "dual"
150     });
151     var template = new PopupTemplate({
152         title: "Monthly Flow",
153         description: "{GNIS_Name}: {MA_Flow} cfs mean annual flow",
154         fieldInfos: [
155             { fieldName: "F1", label: "Jan Flow (cfs)" },
156             { fieldName: "F2", label: "Feb Flow (cfs)" },
157             { fieldName: "F3", label: "Mar Flow (cfs)" },
158             { fieldName: "F4", label: "Apr Flow (cfs)" },
159             { fieldName: "F5", label: "May Flow (cfs)" },
160             { fieldName: "F6", label: "Jun Flow (cfs)" },
161             { fieldName: "F7", label: "Jul Flow (cfs)" },
162             { fieldName: "F8", label: "Aug Flow (cfs)" },
163             { fieldName: "F9", label: "Sep Flow (cfs)" },
164             { fieldName: "F10", label: "Oct Flow (cfs)" },
165             { fieldName: "F11", label: "Nov Flow (cfs)" },
166             { fieldName: "F12", label: "Dec Flow (cfs)" }
167         ],
168         mediaInfos: [{ //define the bar chart
169             caption: "",
170             type: "barchart",
171             value: {
172                 theme: "BlueDusk",
173                 fields: ["F1", "F2", "F3", "F4", "F5", "F6", "F7", "F8", "F9", "F10", "F11", "F12"]
174             }
175         }]
176     });
177
178     var rivers = new
FeatureLayer("http://cipher.digit.utah.edu:6080/arcgis/rest/services/Welker/UT_Rivers/MapServer/0", {
179         mode: FeatureLayer.MODE_ONDEMAND,
180         outFields: ["*"],
181         infoTemplate: template
182     });
183
184     var water_use = new
FeatureLayer("http://cipher.digit.utah.edu:6080/arcgis/rest/services/Welker/WelkerMapService/MapServer/2", {
185         mode: FeatureLayer.MODE_ONDEMAND,
186         outFields: ["*"]

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187     });
188
189     map.addLayers([water_use, rivers]);
190
191     var legendLayers = [];
192     legendLayers.push({layer: water_use, title: 'Municipal Water Use'})
193     legendLayers.push({layer: rivers, title: 'UT Rivers and Streams'})
194
195
196     map.on('layers-add-result', function () {
197         var legend = new Legend({
198             map: map,
199             layerInfos: legendLayers
200         }, "legendDiv");
201         legend.startup();
202     });
203
204     parser.parse();
205
206     var toggle = new BasemapToggle({
207         map: map,
208         basemap: "satellite"
209     }, "BasemapToggle");
210     toggle.startup();
211
212     var layer = new
ArcGISDynamicMapServiceLayer("http://cipher.digit.utah.edu:6080/arcgis/rest/services/Welker/UT_Ri
vers/MapServer");
213     map.addLayer(layer);
214
215     //initialize query task
216     var queryTask = new
QueryTask("http://cipher.digit.utah.edu:6080/arcgis/rest/services/Welker/UT_Rivers/MapServer/0");
217
218     //initialize query
219     var query = new Query();
220     query.returnGeometry = true;
221     // Need to make the spatial reference the same as the map
222     query.outSpatialReference = new SpatialReference({wkid: 102100, latestWkid: 3857});
223     query.outFields = ["GNIS_Name", "MA_Flow", "F1", "F2", "F3", "F4", "F5", "F6", "F7", "F8",
"F9", "F10", "F11", "F12"];
224
225     //create symbol for selected features
226     var symbol = new SimpleLineSymbol();
227     symbol.setStyle(SimpleLineSymbol.STYLE_SOLID);
228     symbol.setWidth(10);
229     symbol.setColor(new Color([255,255,0,0.5]));
230
231     executeQueryTask = function(river_name) {
232         //set query based on what user typed in for name;
233         query.where = " GNIS_Name = '" + river_name + "' ";
234
235         //execute query
236         queryTask.execute(query, showResults);
237     }
238
239     function showResults(featureSet) {
240         //remove all graphics on the maps graphics layer
241         map.graphics.clear();
242
243         //Performance enhancer - assign featureSet array to a single variable.
244         var resultFeatures = featureSet.features;
245
246         //Loop through each feature returned
247         for (var i = 0, il = resultFeatures.length; i < il; i++) {

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248         //Get the current feature from the featureSet.
249         //Feature is a graphic
250         var graphic = resultFeatures[i];
251         graphic.setSymbol(symbol);
252
253         //Set the infoTemplate.
254         graphic.setInfoTemplate(template);
255
256         //Add graphic to the map graphics layer.
257         map.graphics.add(graphic);
258         map.graphics.show()
259     }
260 }
261 });
262 </script>
263 </head>
264 <body class="claro">
265
266 <div id="content"
267     data-dojo-type="dijit/layout/BorderContainer"
268     data-dojo-props="design:'headline',gutters:true">
269
270     <div id="rightPane"
271         data-dojo-type="dijit/layout/ContentPane"
272         data-dojo-props="region:'right'">
273
274         <div data-dojo-type="dijit/layout/AccordionContainer">
275
276             <div id="legendPane"
277                 data-dojo-type="dijit/layout/ContentPane"
278                 data-dojo-props="title:'Legend',selected:true">
279
280                 <div id="legendDiv"></div>
281
282             </div>
283
284             <div id="searchPane"
285                 data-dojo-type="dijit/layout/ContentPane"
286                 data-dojo-props="title:'Search',selected:true">
287
288                 <div id="searchDiv">
289                     <input type="text" name="river_name" id="river_name" placeholder="River Name">
290                     <input type="button" value="Search"
onclick="executeQueryTask(dojo.byId('river_name').value);">
291                 </div>
292
293             </div>
294
295         </div>
296
297     </div>
298
299     <div id="centerPane"
300         data-dojo-type="dijit/layout/ContentPane"
301         data-dojo-props="region:'center'">
302         <div id="mapDiv"></div>
303         <div id="BasemapToggle"></div>
304     </div>
305
306 </div>
307
308 </body>
309 </html>
310

```