2016 json-schema json-ld primers

```
1 // primer-json-schema.js
                                                                                                   3 // FISHCO1LBC
 4 // TCAACYAATCAYAAAGATATYGGCAC
 6 // FISHCO1HBC
   // ACTTCYGGGTGRCCRAARAATCA
 8
 9 {
      "id": 1,
10
      "name": "FISHCO1LBC",
11
      "description": "Fish CO1 barcoding primer",
12
      "sequence": "TCAACYAATCAYAAAGATATYGGCAC",
13
      "orientation": [
14
15
        "forward",
        "reverse"
17
18
19
20
        "type": "object",
21
        "properties": {
22
            "id": {
23
                "type": "string",
24
25
                "description": "unique id",
                "minLength": 0,
26
27
                "maxLength": 255
28
29
            "name": {
30
                "type": "string",
                "description": "short name",
31
                "minLength": 4,
32
                "maxLength": 32
33
34
35
            "description": {
                "type": "string"
36
37
38
            "sequence": {
                "type": "string",
39
40
                "description": "sequence"
41
            "orientation": {
42
                "type": "string",
43
                "default": "forward",
44
45
                "enum": [
46
                         "forward",
47
48
                         "reverse"
49
                    1
50
                ]
51
            }
52
        "required": [
53
            "id",
54
55
            "name",
56
            "sequence",
```

```
57
             "orientation"
         1
 58
 59 }
 60
 61
 62
       "$id": "http://example.com/example.json",
 63
       "type": "object",
 64
       "definitions": {},
 65
       "$schema": "http://json-schema.org/draft-06/schema#",
 66
       "properties": {
 67
         "id": {
 68
           "$id": "/properties/id",
 69
           "type": "integer",
 70
 71
           "title": "id",
 72
           "description": "id string",
           "default": ""
 73
 74
         },
         "name": {
 75
           "$id": "/properties/name",
 76
           "type": "string",
 77
 78
           "title": "The Name Schema",
 79
           "description": "An explanation about the purpose of this instance.",
           "default": ""
 80
           "examples": [
 81
             "FISHC01LBC"
 82
           ]
 83
 84
 85
         "description": {
           "$id": "/properties/description",
 86
           "type": "string",
 87
 88
           "title": "The Description Schema",
           "description": "An explanation about the purpose of this instance.",
 89
 90
           "default": "",
           "examples": [
 91
             "Fish CO1 barcoding primer"
 92
           ]
 93
         },
 94
         "sequence": {
 95
 96
           "$id": "/properties/sequence",
           "type": "string",
 97
 98
           "title": "The Sequene Schema",
           "description": "An explanation about the purpose of this instance.",
 99
           "default": ""
100
           "examples": [
101
             "TCAACYAATCAYAAAGATATYGGCAC"
102
103
104
         },
         "orientation": {
105
           "$id": "/properties/orientation",
106
107
           "type": "array",
108
           "uniqueItems": false,
109
           "items": {
             "$id": "/properties/orientation/items",
110
             "type": "string",
111
112
             "title": "orientation",
             "description": "forward or reverse strand",
113
             "default": "forward",
114
             "examples": [
115
116
               "forward"
             ],
117
```

```
"enum": [
118
119
                "forward, reverse"
120
121
         }
122
123
124
       "required": [
         "id",
125
         "name",
126
         "sequence"
127
128
129
130
    const mobx = require("mobx")
131
     const { types } = require('mobx-state-tree');
133
     const jsonSchemaToTypes = require('jsonschema-to-mobx-state-tree')(types);
134
135 const eventSchema = {
136
       type: "object",
137
       title: "Event",
138
       properties: {
         title: {
139
           type: "string"
140
141
         },
142
         public: {
           type: "boolean",
143
144
           default: false
145
146
         time: {
           type: "object",
147
148
           properties: {
149
             start: {
150
                type: "string",
151
                format: "datetime"
152
             },
153
             end: {
                type: "string",
154
155
                format: "datetime"
156
157
           required: ["start"]
158
         }
159
160
       required: ["title", "public"]
161
162
    };
163
164
    const primer = {
       "type": "object",
165
       "properties": {
166
167
         "id": {
168
           "type": "string",
           "description": "unique id",
169
170
         },
         "name": {
171
172
           "type": "string",
173
           "description": "short name",
           "minLength": 4,
174
175
           "maxLength": 32
176
177
         "description": {
           "type": "string"
178
```

```
179
         "sequence": {
180
           "type": "string",
181
           "description": "sequence"
182
183
         "orientation": {
184
           "type": "string",
185
           "default": "forward",
186
           "enum": [
187
188
                "forward",
189
                "reverse"
190
191
192
         }
193
194
       },
       "required": [
195
         "id",
196
197
         "name",
198
         "sequence",
         "orientation"
199
200
201
202
203 const eventModel = jsonSchemaToTypes(primer);
204
    console.log(eventModel);
205
206
    // https://npm.runkit.com/jsonschema-to-mobx-state-tree
```

json-ld_simple_protocol_flow.json

```
1 <script type="application/ld+json">
                                                                                                 2
   [ {
      "@context":
 3
 4
 5
        "schema": "http://schema.org",
 6
        "name": {
          "@id": "http://schema.org/name",
 7
 8
          "@type": "@id"
 9
        },
10
        "input": {
11
          "@id": "http://schema.org/url",
          "@type": "@id"
12
13
        "content": {
14
          "@id": "http://schema.org/code",
15
          "@type": "@id"
16
17
     },
18
19
      "name": "calculate transformation efficiency",
      "input": "http://fab.bio/100ideas/pcr/1/1sjf2h2",
20
      "content": "content",
21
      "dateCreated": "2013-02-14T13:15:03-08:00"
22
23
  }]
24
   </script>
25
26
27
    /*#################/*/
```

```
28
29
30
  <script type="application/ld+json">
31
32
       "@context": "http://schema.org",
       "atype": "Recipe",
33
       "name": "calculate transformation efficiency",
34
       "url": "https://www.example-petstore.com/",
35
      "dateCreated": "2013-02-14T13:15:03-08:00"
36
37 }
38 </script>
39
40
41
   /*###################
42
43
   <script type="application/ld+json">
44
   [ {
45
      "@context":
46
       "name": {
47
         "@id": "http://schema.org/name",
48
49
          "@type": "@id"
50
       },
       "operation": "http://schema.org/Recipe",
51
       "input": {
52
          "@id": "http://schema.org/url",
53
54
         "atype": "aid"
55
        "content": {
56
57
         "@id": "http://schema.org/code",
          "@type": "@id"
58
59
60
     },
61
      "atype": "operation",
      "name": "calculate transformation efficiency",
62
      "input": "http://fab.bio/100ideas/pcr/1/1sjf2h2",
63
      "content": "content",
64
      "dateCreated": "2013-02-14T13:15:03-08:00"
65
66 }]
67
   </script>
68
69
70
   /*#################
71
72
73
      "@context": {
74
75
        "name": "http://fab.bio/schema/0.1/name",
76
        "homepage": {
          "@id": "http://xmlns.com/foaf/0.1/workplaceHomepage",
77
         "atype": "aid"
78
79
       },
80
        "Person": "http://xmlns.com/foaf/0.1/Person"
81
     },
82
     "@id": "http://me.example.com",
83
     "atype": "Person",
      "name": "John Smith",
84
85
      "homepage": "http://www.example.com/"
86 }
87
   /*#################/*/
88
```