

Getting Some Station Data

1. Click on the Station schema. List the names of the values stored in it.
Id, code, officialName, operating, latitude, type, timeSeries

```
Station {
  id          string
  code        string
  officialName string
  operating    boolean
  latitude    number($double)
  longitude   number($double)
  type        string
  timeSeries  {
    TimeSeries {
      id          string
      code        string
      nameEn      string
      nameFr      string
      phenomenonId string
    }
  }
}
```

2. Which section uses the Station schema?

Responses

Code	Description	Links
200	OK	No links

Media type
/

Controls Accept header.

Example Value | Schema

{Station > {...}}

The response returned is in the form of the Station schema.

3. What is the id value for the station with an officialName of “Charlottetown” with an operating value of “true”?

The id is “5cebf1e33d0f4a073c4bc21f”

```
"id": "5cebf1e33d0f4a073c4bc21f",
"code": "01700",
"officialName": "Charlottetown",
"operating": true,
"latitude": 46.23012108,
"longitude": -63.1221766,
"type": "PERMANENT",
```

4. Open another browser tab and copy the Request URL value into it. What does it return?

It returns a very long unformatted json string which contains the Station schema.

```
{["id":"5ceb1e3d0f4a073c4bcbcd","code":"01003","officialName":"JAMESTOWN","operating":false,"latitude":48.433333,"longitude":-53.8,"type":"PERMANENT","timeSeries":
[{"id":"5ceb1e3d0f4a073c4bcbcd","code":"wlp","nameEn":"Water level predictions","nameFr":"Prédictions de niveaux d'eau","phenomenonId":"5ce598df487b84486892821c"},
{"id":"5d9dd7d33a9f593161c4006","code":"wlp-hilo","nameEn":"High and Low Tide Predictions","nameFr":"Prédictions de plaines et basses
mers","phenomenonId":"5ce598df487b84486892821c"}]],{"id":"5ceb1e3d0f4a073c4bcbcd","code":"00493","officialName":"CHEZZETCOOK
INLET","operating":false,"latitude":44.783333,"longitude":-63.233333,"type":"PERMANENT","timeSeries":[{"id":"5ceb1e3d0f4a073c4bcbcd","code":"wlp","nameEn":"Water level
predictions","nameFr":"Prédictions de niveaux d'eau","phenomenonId":"5ce598df487b84486892821c"},{"id":"5d9dd7d33a9f593161c4073","code":"wlp-hilo","nameEn":"High and Low Tide
Predictions","nameFr":"Prédictions de plaines et basses mers","phenomenonId":"5ce598df487b84486892821c"},{"id":"5dd306f0e0dc4b9b4bf9fb3","code":"wlo","nameEn":"Water level official
value","nameFr":"Niveau d'eau, valeur officielle","phenomenonId":"5ce598df487b84486892821c"}]],{"id":"5ceb1e3d0f4a073c4bcbcd","code":"01725","officialName":"PORT
BORDEN","operating":false,"latitude":46.25,"longitude":-63.7,"type":"PERMANENT","timeSeries":[{"id":"5ceb1e3d0f4a073c4bcbcd","code":"wlp","nameEn":"Water level
predictions","nameFr":"Prédictions de niveaux d'eau","phenomenonId":"5ce598df487b84486892821c"},{"id":"5d9dd7d33a9f593161c415e","code":"wlp-hilo","nameEn":"High and Low Tide
Predictions","nameFr":"Prédictions de plaines et basses mers","phenomenonId":"5ce598df487b84486892821c"},{"id":"5dd306f0e0dc4b9b4bf9fb3","code":"wlo","nameEn":"Water level official
value","nameFr":"Niveau d'eau, valeur officielle","phenomenonId":"5ce598df487b84486892821c"}]],{"id":"5ceb1e3d0f4a073c4bcbcd","code":"00097","officialName":"Hatfield
Point","operating":false,"latitude":45.616667,"longitude":-55.916667,"type":"DISCONTINUED","timeSeries":[{"id":"5ceb1e3d0f4a073c4bcbcd","code":"wlp","nameEn":"Water level
predictions","nameFr":"Prédictions de niveaux d'eau","phenomenonId":"5ce598df487b84486892821c"},{"id":"5d9dd7d33a9f593161c40d7","code":"wlp-hilo","nameEn":"High and Low Tide
Predictions","nameFr":"Prédictions de plaines et basses mers","phenomenonId":"5ce598df487b84486892821c"}]],{"id":"5ceb1e3d0f4a073c4bcbcd","code":"01050","officialName":"FOOD",
operating":false,"latitude":45.716667,"longitude":-54.266667,"type":"PERMANENT","timeSeries":
[{"id":"5ceb1e3d0f4a073c4bcbcd","code":"wlp","nameEn":"Water level predictions","nameFr":"Prédictions de niveaux d'eau","phenomenonId":"5ce598df487b84486892821c"},
{"id":"5d9dd7d33a9f593161c4119","code":"wlp-hilo","nameEn":"High and Low Tide Predictions","nameFr":"Prédictions de plaines et basses
mers","phenomenonId":"5ce598df487b84486892821c"},{"id":"5dd306f0e0dc4b9b4bf9fb3","code":"wlo","nameEn":"Water level official value","nameFr":"Niveau d'eau, valeur
officielle","phenomenonId":"5ce598df487b84486892821c"}]],{"id":"5ceb1e3d0f4a073c4bcbcd","code":"01600","officialName":"Ballantynes
Cove","operating":false,"latitude":45.898,"longitude":-61.918,"type":"DISCONTINUED","timeSeries":[{"id":"5ceb1e3d0f4a073c4bcbcd","code":"wlp","nameEn":"Water level
predictions","nameFr":"Prédictions de niveaux d'eau","phenomenonId":"5ce598df487b84486892821c"},{"id":"5d9dd7d33a9f593161c414d","code":"wlp-hilo","nameEn":"High and Low Tide
Predictions","nameFr":"Prédictions de plaines et basses mers","phenomenonId":"5ce598df487b84486892821c"}]],{"id":"5ceb1e3d0f4a073c4bcbcd","code":"01390","officialName":"MAKOVIK",
operating":false,"latitude":55.083333,"longitude":-59.166667,"type":"PERMANENT","timeSeries":
[{"id":"5ceb1e3d0f4a073c4bcbcd","code":"wlp","nameEn":"Water level predictions","nameFr":"Prédictions de niveaux d'eau","phenomenonId":"5ce598df487b84486892821c"},
{"id":"5d9dd7d33a9f593161c413c","code":"wlp-hilo","nameEn":"High and Low Tide Predictions","nameFr":"Prédictions de plaines et basses
mers","phenomenonId":"5ce598df487b84486892821c"}]],{"id":"5ceb1e3d0f4a073c4bcbcd","code":"02100","officialName":"PORT
HARMON","operating":false,"latitude":48.5,"longitude":-58.533333,"type":"TEMPORARY","timeSeries":[{"id":"5ceb1e3d0f4a073c4bcbcd","code":"wlp","nameEn":"Water level
predictions","nameFr":"Prédictions de niveaux d'eau","phenomenonId":"5ce598df487b84486892821c"},{"id":"5d9dd7d33a9f593161c41bc","code":"wlp-hilo","nameEn":"High and Low Tide
Predictions","nameFr":"Prédictions de plaines et basses mers","phenomenonId":"5ce598df487b84486892821c"},{"id":"5dd306f0e0dc4b9b4bf9fb3","code":"wlo","nameEn":"Water level official
value","nameFr":"Niveau d'eau, valeur officielle","phenomenonId":"5ce598df487b84486892821c"}]],{"id":"5ceb1e3d0f4a073c4bcbcd","code":"01186","officialName":"HENLEY
HARBOR","operating":false,"latitude":51.483333,"longitude":-55.85,"type":"PERMANENT","timeSeries":[{"id":"5ceb1e3d0f4a073c4bcbcd","code":"wlp","nameEn":"Water level
predictions","nameFr":"Prédictions de niveaux d'eau","phenomenonId":"5ce598df487b84486892821c"},{"id":"5d9dd7d33a9f593161c414d","code":"wlp-hilo","nameEn":"High and Low Tide
Predictions","nameFr":"Prédictions de plaines et basses mers","phenomenonId":"5ce598df487b84486892821c"}]]}
```

Accessing Water Level Data

1. We need to specify a time series type.

- How do we find that?

Use “time-series-definitions” API. Which returns different time series definitions. Also, the timeseries schema defines the time series type as following:

```
TimeSeries {
  id string
  code string
  nameEn string
  nameFr string
  phenomenonId string
}
```

- What are the code values for “Water level official value” and “High and Low Tide Predictions”?

Water level official value : wlo

High and Low Tide predictions: wlp-hilo

```
"id": "60b65a1f62a4df628689c974",
"code": "wlo",
"descriptionFr": "Niveau d'eau, valeur officielle",
"descriptionEn": "Water level official value",
"allowedPeriodInDays": 7
```

```
"id": "60b65a1f62a4df628689c97a",
"code": "wlp-hilo",
"descriptionFr": "Prédictions de plaines et basses mers",
```

```
"descriptionEn": "High and Low Tide Predictions",  
"allowedPeriodInDays": 366
```

2. We need to specify date in ISO 8601 format UTC.

- a) Use web search to discover what this is and give a short (maximum two sentence) description.

ISO 8601 represents date and time by starting with the year, followed by the month, the day, the hour, the minutes, seconds and milliseconds. For example, 2020-07-10 15:00:00.000, represents the 10th of July 2020 at 3 p.m.

Coordinated Universal Time or **UTC** is the primary time standard by which the world regulates clocks and time.

- b) Specify the value for the start of today's lab in this format.

2021-12-06T17:30:00.00Z

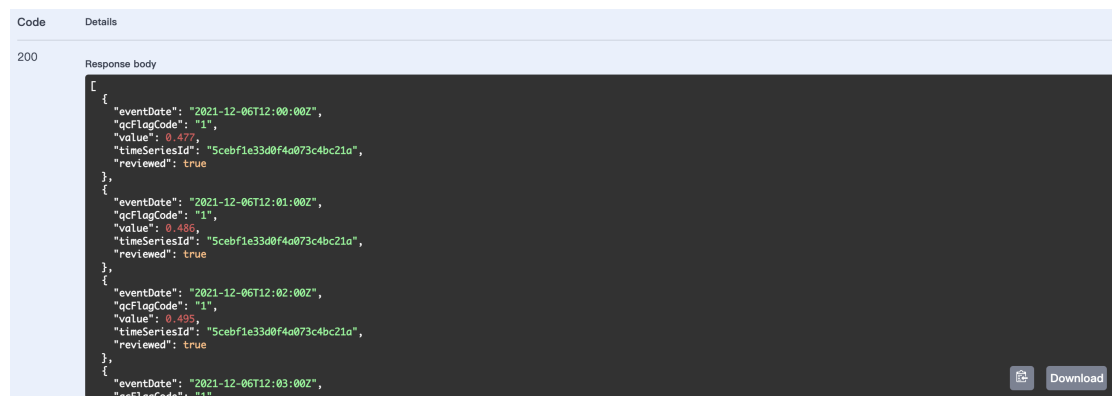
3. Using the endpoint under the data functionality, retrieve the data for the Charlottetown station for "Water level official value" from noon until the start of the lab.

- What is the URL that was used?

[https://api-iwls.dfo-](https://api-iwls.dfo-mpo.gc.ca/api/v1/stations/5cebf1e33d0f4a073c4bc21f/data?time-series-code=wlo&from=2021-12-06T12%3A00%3A00.00Z&to=2021-12-06T17%3A30%3A00.00Z)

[mpo.gc.ca/api/v1/stations/5cebf1e33d0f4a073c4bc21f/data?time-series-code=wlo&from=2021-12-06T12%3A00%3A00.00Z&to=2021-12-06T17%3A30%3A00.00Z](https://api-iwls.dfo-mpo.gc.ca/api/v1/stations/5cebf1e33d0f4a073c4bc21f/data?time-series-code=wlo&from=2021-12-06T12%3A00%3A00.00Z&to=2021-12-06T17%3A30%3A00.00Z)

- Take a screenshot of the Response body



```
200  
Response body  
[  
  {  
    "eventDate": "2021-12-06T12:00:00Z",  
    "qcFlagCode": "1",  
    "value": 0.477,  
    "timeSeriesId": "5cebf1e33d0f4a073c4bc21a",  
    "reviewed": true  
  },  
  {  
    "eventDate": "2021-12-06T12:01:00Z",  
    "qcFlagCode": "1",  
    "value": 0.486,  
    "timeSeriesId": "5cebf1e33d0f4a073c4bc21a",  
    "reviewed": true  
  },  
  {  
    "eventDate": "2021-12-06T12:02:00Z",  
    "qcFlagCode": "1",  
    "value": 0.495,  
    "timeSeriesId": "5cebf1e33d0f4a073c4bc21a",  
    "reviewed": true  
  },  
  {  
    "eventDate": "2021-12-06T12:03:00Z",  
    "qcFlagCode": "1"  
  }  
]
```

4. Using the endpoint under the data functionality, retrieve the data for the Charlottetown station for "High and Low Tide Predictions" for the entire day of 25 December, 2021.

- What is the URL that was used?

[https://api-iwls.dfo-](https://api-iwls.dfo-mpo.gc.ca/api/v1/stations/5cebf1e33d0f4a073c4bc21f/data?time-series-code=wlp-hilo&from=2021-12-25T00%3A00%3A00.00Z&to=2021-12-25T24%3A00%3A00.00Z)

[mpo.gc.ca/api/v1/stations/5cebf1e33d0f4a073c4bc21f/data?time-series-code=wlp-hilo&from=2021-12-25T00%3A00%3A00.00Z&to=2021-12-25T24%3A00%3A00.00Z](https://api-iwls.dfo-mpo.gc.ca/api/v1/stations/5cebf1e33d0f4a073c4bc21f/data?time-series-code=wlp-hilo&from=2021-12-25T00%3A00%3A00.00Z&to=2021-12-25T24%3A00%3A00.00Z)

Code

Details

200

Response body

```
[
  {
    "eventDate": "2021-12-25T00:17:00Z",
    "qcFlagCode": "2",
    "value": 1.577,
    "timeSeriesId": "5d9dd7da33a9f593161c4159"
  },
  {
    "eventDate": "2021-12-25T05:27:00Z",
    "qcFlagCode": "2",
    "value": 2.543,
    "timeSeriesId": "5d9dd7da33a9f593161c4159"
  },
  {
    "eventDate": "2021-12-25T12:28:00Z",
    "qcFlagCode": "2",
    "value": 0.847,
    "timeSeriesId": "5d9dd7da33a9f593161c4159"
  },
  {
    "eventDate": "2021-12-25T19:19:00Z",
    "qcFlagCode": "2",
    "value": 2.462,
    "timeSeriesId": "5d9dd7da33a9f593161c4159"
  }
]
```



Download