Documenting XML API Exercise

Step 1: Request to record a TV program

XML Sample

```
<recordTV>
    <date>2021-06-01</date>
    <time format="24">18:00</time>
    <duration>1.5</duration>
    <channel>54</channel>
</recordTV>
```

Request to record a television program

Element	Description	Type	Required	Notes
recordTV	Top Level Data on when a TV program should be recorded	TV record data	Required	
date	TV program date	String	Optional	yyyy-mm-dd Default is current date
time	TV Program start time	String	Required	Attribute: **format** either 24 (hours) or 12 (hours) Time is hh:mm or hh:mm am/pm
duration	TV program length	Number	Required	Hours
channel	Channel to record	Number	Required	

XML Sample

```
<recordTV>
   <when date="2021-06-01" time="18:00" format="24" />
   <duration hours="1.5" />
   <station channel="54" />
</recordTV>
```

Request to record a television program

Element	Attributes	Description	Type	Required	Notes
recordTV		Top Level Data on when a TV program should be recorded	TV record data	Required	
	when	The date and time when the program starts	Date and time data	Required	
		date	TV program date	String	Optional	yyyy-mm-dd Default is current date
		time	TV Program start time	String	Required	If format is 24: hh:mm If format is 12: hh:mm followed by am/pm
		format	Either 12 or 24 hours	Number	Required	Value 12 or 24 hours
	duration		TV program length	Duration data		
		hours	TV program length in hours	Number	Required	
	station		The station to record	Station data	Required	
		channel	Channel to record	Number	Required	

Step 3: Temperature and humidity (multiple tables)

XML Sample

```xml
<dailyData>
    <date>2021-06-01</date>
    <hourlyData>
        <time>10:00</time>
        <device>
            <id>34</id>
            <temperature>70</temperature>
            <humidity>11</humidity>
        </device>
        <device>
            <id>35</id>
            <temperature>72</temperature>
            <humidity>12</humidity>
        </device>
        ...
    </hourlyData>
    <hourlyData>
        <time>11:00</time>
        <device>
            <id>34</id>
            <temperature>71</temperature>
            <humidity>10</humidity>
        </device>
        ...
    </hourlyData>
    ...
</dailyData>
```

Top Level

Element	Description	Type
dailyData	Temperature and humidity data for one day	Element

dailyData Element

Element	Description	Type	Notes
date	Current date	String	yyyy-mm-dd
hourlyData	Temperature and humidity data for one hour	Element	

hourlyData Element

Element	Description	Type	Notes
time	Local time temperature/humidity was taken	String	hh:mm
device	Device objects with data from each device	Element	

device Element

Element	Description	Type	Notes
id	Device ID	Number	
temperature	Measured temperature	Number	Fahrenheit
humidity	Measured humidity	Number	Percentage %