```
1 # # Get list of index values for all invalid State code rows
In [29]:
          2 # invalid 1 = list(has address[has address['State'].isin(invalid states)].index)
```

## 4. Check nulls

Answer: The resulting table shows the rows in charges where the 'State' code OR 'Country' code is NULL.

```
In [30]:
          1 # Find all rows where State code OR Country code is NULL
          2 has address[(has address['State'].isnull()) | (has address['Country'].isnull())]
```

## Out[30]:

	Address 1	Address 2	City	State	Zip	Country
218	173 Main St.	NaN	Alberta	NaN	NaN	CA
1720	731 Main St.	Seuzach Switzerland	NaN	NaN	NaN	NaN
1758	234 Main St.	NaN	NaN	NaN	NaN	NaN
1812	992 Main St.	NaN	Vancouver	ВС	CA	NaN
2175	127 Main St.	NaN	NaN	NaN	NaN	NaN

```
In [31]:
          1 # Get list of index values for all null rows
          2 invalid 2 = list(has address[(has_address['State'].isnull()) | (has_address['Country'].isnul
```

## 5. Final overview

All invalid rows were in one of 2 groups:

- 1. Invalid 'Country' code either null or USA which is NOT the correct country code according to the countries table.
- 2. Invalid 'State' code either null or an incorrect code: ['XY', 'VW', 'CD', 'AE', 'UX', 'AW'].

## 6. Other observations/EDA

• Notice has address.iloc[1720] which has city/state/country information in the Address 2 column instead of in the appropriate columns. Based on the countries table, the country code for Switzerland would be CH.