Version Spaces

- Consider a variant of the weather dataset with the following features:
  - Outlook: sunny, overcast, rainy
  - Temperature: hot, mild, cool
  - Humidity: high-humid, low-humid
  - Wind: windy, not-windy

and imagine the true concept being learned is:

(hot AND high-humid)

- Hypothesis are restricted to AND of attribute values
- We see the following sequence of examples:

<table>
<thead>
<tr>
<th>Ex1</th>
<th>sunny</th>
<th>hot</th>
<th>high-humid</th>
<th>not-windy</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Ex2</td>
<td>overcast</td>
<td>hot</td>
<td>high-humid</td>
<td>not-windy</td>
<td></td>
</tr>
<tr>
<td>Ex3</td>
<td>rainy</td>
<td>mild</td>
<td>low-humid</td>
<td>not-windy</td>
<td></td>
</tr>
<tr>
<td>Ex4</td>
<td>rainy</td>
<td>hot</td>
<td>high-humid</td>
<td>not-windy</td>
<td>?</td>
</tr>
<tr>
<td>Ex5</td>
<td>sunny</td>
<td>mild</td>
<td>low-humid</td>
<td>windy</td>
<td>?</td>
</tr>
<tr>
<td>Ex6</td>
<td>overcast</td>
<td>hot</td>
<td>low-humid</td>
<td>windy</td>
<td>?</td>
</tr>
<tr>
<td>Ex7</td>
<td>sunny</td>
<td>hot</td>
<td>high-humid</td>
<td>windy</td>
<td>?</td>
</tr>
</tbody>
</table>