We instantiate the NRI and NRS templates for the following algorithms on the MovieLens-20M dataset:

- **Item-Item**, a model-based collaborative filtering algorithm
- **LightFM**, a hybrid, content-based recommender algorithm

<table>
<thead>
<tr>
<th>Algorithm</th>
<th>Precision</th>
<th>Recall</th>
<th>NRI</th>
<th>NRS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item-Item</td>
<td>0.00179</td>
<td>0.000341</td>
<td>2791</td>
<td>138417</td>
</tr>
<tr>
<td>LightFM</td>
<td>0.00520</td>
<td>0.00213</td>
<td>786</td>
<td>85784</td>
</tr>
</tbody>
</table>

**Initial Exploration**

We instantiate the NRI and NRS templates for the following algorithms on the MovieLens-20M dataset:

- **Item-Item**, a model-based collaborative filtering algorithm
- **LightFM**, a hybrid, content-based recommender algorithm

**Using Instantiated Properties**

- **Algorithm developers**: perform a richer comparison of the behavior of their proposed algorithm in relation to others
- **RS developers**: ensure that a RS meets some specification. They can also be used as assertions as a dataset evolves
- **Recommender clients**: compare RS and guide the selection of a recommender for a particular application

**Future Work**

- A more exhaustive exploration of the space of templates that can be generated using our model
- Define templates that capture learned influence relationships
- Use instantiated properties to assist in the explanation of anomalous recommendation behavior

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