Class Design

CIS110
Class Design

- **Abstraction**: set of information properties relevant to a stakeholder about an entity
- Information Property (or property): a named, objective and quantifiable aspect of an entity
- Stakeholder: a real or imagined person (or a class of people) who is seen as the audience for, or user of the abstraction being defined
Class Design

• Example:
  – Entity: Movie
  – Properties:
    • Title
    • Year
    • Length
    • Genre
    • Format
    • Price
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Representing the Movie Abstraction using a Table

<table>
<thead>
<tr>
<th>Movie</th>
<th>On-Line Customer</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Title</strong> (string)</td>
<td><strong>Year</strong> (int)</td>
</tr>
<tr>
<td>“Moneyball”</td>
<td>2011</td>
</tr>
<tr>
<td>“Gone With the Wind”</td>
<td>1939</td>
</tr>
<tr>
<td>“Jurassic Park”</td>
<td>1993</td>
</tr>
<tr>
<td>“Pirates of the Caribbean”</td>
<td>2003</td>
</tr>
<tr>
<td>“Sicko”</td>
<td>2007</td>
</tr>
</tbody>
</table>
Java Class

- Entity is the class: Movie.Java
- Properties become attributes (data fields)
  - String title
  - int year
  - etc.
Activity

• Download the classwork file from the course website and complete the activity