Decision Tables

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Decision tables are a technique used in systems analysis and software development to represent conditional logic. They are particularly useful in situations where there are multiple conditions and actions that need to be evaluated. A decision table is a tabular representation of decision logic, where the conditions and actions are specified in a structured manner.

**Example:**

<table>
<thead>
<tr>
<th>Condition</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age &lt;= 25</td>
<td>Pay standard rate</td>
</tr>
<tr>
<td>Age &gt; 25</td>
<td>Pay overtime rate</td>
</tr>
</tbody>
</table>

This table shows that if the driver's age is less than or equal to 25, they pay the standard rate, otherwise they pay the overtime rate.

**Uses of Decision Tables:**

1. **Business Rules:** Decision tables can be used to define and document business rules, ensuring consistency and clarity.
2. **Software Testing:** They are used in software development to test and verify the correctness of the logic in the system.
3. **Requirements Management:** Decision tables can be used to specify requirements in a structured format.
4. **Rule-based Systems:** They are used in rule-based systems to define complex logic in a spreadsheet-like format.

Decision tables are particularly useful in situations where the logic is complex and needs to be easily understandable and maintainable. They are a powerful tool in the toolbox of a software developer, enabling them to define and document logic in a clear and concise manner.