

How to Develop a Decision Table?

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Creating <u>decision table</u> in <u>Visual Paradigm</u> is easy. You don't need to draw the table and grid lines yourself. You don't even need to worry about how to operate with the editing tool. Just focus on what is important to you - the business logic. Add into decision table the conditions, actions and business rules, all by simple clicks.

Pre-requisite - The Decision Table Software

Just in case you are not currently using Visual Paradigm, you may download in the <u>Visual Paradigm</u> <u>download page</u>. It comes with 30 days free evaluation period. You don't need any license key or activation code. Just download it, install it (or unzip it if you are going to download the No-Install version), run it and set the edition. Remember to select the <u>Enterprise Edition</u> as it is the edition that supports decision table.

Develop a Decision Table

In this section, we are going to develop a decision table that represents the following business rules implemented by an online bookstore.

- 1. New customer has to pay in advance.
- 2. If the amount of transactions a customer made in the previous month was more than \$1,000, but the amount of transaction is less than \$500 this time, allow the customer to pay in advance and pay upon delivery.
- 3. If the amount of transactions a customer made in the previous month was more than \$1,000, and if the amount of transaction is more than \$500 this time, allow the customer to pay in advance or pay upon delivery but with 15% prior deposit.
- 4. If the amount of transactions a customer made in the previous month was less than \$1,000, request the customer to pay in advance.

Now, take the steps below to develop a decision table.

- 1. Start Visual Paradigm.
- 2. To create a decision table, select **Diagram > New** from the toolbar.

3. In the **New Diagram** window, select *Decision Table* and click **Next**.

New Diagram		>	×
Q Search			
Handberger Handberger Handberger Handberger Handberger Kannak Ka	Decision Table Represent business logic with classical decision table.	^	
	Deployment Diagram Model the physical deployment of artifacts with component (e.g. web server), artifact (e.g. jar file) and node (web application, DB).		
	Desktop Wireframe Sketch the screen of a desktop application to facilitate the discussion of system design with stakeholders.		
C	Doughnut Chart Essentially a pie chart with an area of the center cut out.	•	
	Powered by Visual Paradigm Online's web diagram technol Next]

- 4. Keep **Blank** in the template selection screen and click **Next**.
- Let's consider this rule: New customer has to pay in advance. Obviously, "New customer" is a condition and "Accept pay in advance" is an action. Let's put them into the decision table. Initially a dummy condition and action are created for you. Let's rename them into New customer and Accept "Pay in advance" respectively.

Decision Table1		
📄 🖸 💽 📖 🐟 💙 FE 🗊		
		Rules
Conditions		1
C1. New customer		
Actions	× *	1
A1. Accept "Pay in advance"		

Double click on the cell next to the condition *New customer*, under the first rule. Select Y.
Double click on the cell next to the action *Accept "Pay in advance"*, under the first rule. Select X.

Decision Table1	
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	Rules
Conditions	1
C1. New customer	Y
Actions	1
A1. Accept "Pay in advance"	×
	X (Marked)

7. Here is another rule we have: *If the amount of transactions a customer made in the previous month was more than \$1,000, but the amount of transaction is less than \$500 this time, allow the customer to pay in advance and pay upon delivery.*

Add a new condition first. You can create a condition by moving your mouse pointer to the **Conditions** row and clicking the add button.

		< Rules >
Conditions		1
C1. New cus Add Condition		Y
Actions	× *	1
A1. Accept "Pay in advance"		Х

- 8. Name the condition *Previous monthly transaction* > \$1,000.
- 9. Add one more condition *Transaction* > \$500.
- 10. Similarly, create an action Accept "Pay upon delivery".

	Rules
Conditions	1
C1. New customer	Y
C2. Previous monthly transaction > \$1,000	
C3. Transaction > \$500	
Actions	1
A1. Accept "Pay in advance"	Х
A2. Accept "Pay upon delivery"	

11. Add a rule by clicking on the third button the editor toolbar.



- 12. Select **Y** for the condition *Previous monthly transaction* >\$1,000, **N** for *Transaction* > \$500.
- 13. Select X for the actions Accept "Pay in advance" and Accept "Pay upon delivery".

	< Rules >		
Conditions	1	2	
C1. New customer	Y		
C2. Previous monthly transaction > \$1,000		Y	
C3. Transaction > \$500		N	
Actions 🗸 🔦	1	2	
A1. Accept "Pay in advance"	Х	Х	
A2. Accept "Pay upon delivery"		Х	

14. Create the other rules. Your decision table should look like this:

	Rules			
Conditions	1	2	3	4
C1. New customer	Y			
C2. Previous monthly transaction > \$1,000		Y	Y	N
C3. Transaction > \$500		N	Y	
Actions	1	2	3	4
A1. Accept "Pay in advance"	Х	х	Х	х
A2. Accept "Pay upon delivery"		х		
A3. Accept "Pay upon delivery" with 15% prior deposit			Х	

Decision table that can answer your question

One of the strengths of decision table is that it allows people to view business logic from different angles, thus providing answers to different kinds of questions related to decision making. By viewing a decision table, you can easily tell with what conditions certain action would be performed, what will happen when certain condition is met, in what extent certain condition may affect the decision making process, etc. Although you can find the answers of all these question by naked eye, Visual Paradigm makes it even simpler by providing you with the highlighting feature. Just click on a condition (row), the business rules that cover the condition will be highlighted. The same technique can be applied on actions and rules, too.

Related Links

- <u>Tutorial Business Logic Discovery with Decision Table</u>
- <u>Tutorial Establish and Maintain Sensible Business with Decision Table</u>
- <u>Tutorial Align Business Goal and Business Logic with Decision Table</u>
- Article Decision Table Explained



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