Instruction on Using the Shiny Web Application

Step 1: In the top panel on the left, select one of the first four examples. For instance, select Example 4 *Should I switch?* and the example's BN model structure will show in the panel below.

Select an example
- ○ Sex as a Cause of Pregnancy
- ○ Color Preference by Culture
- ○ Efficacy of Medication Treatment
- ● Should I Switch?
- ○ Effect of Smoking on Forced Expiratory Volume

The Bayes Network model structure
P(Host,Jen,Car)=P(Jen)P(Car)P(Jen)P(Host|Jen,Car)

Meanwhile, its DAG is shown in the **DAG** tab on the right
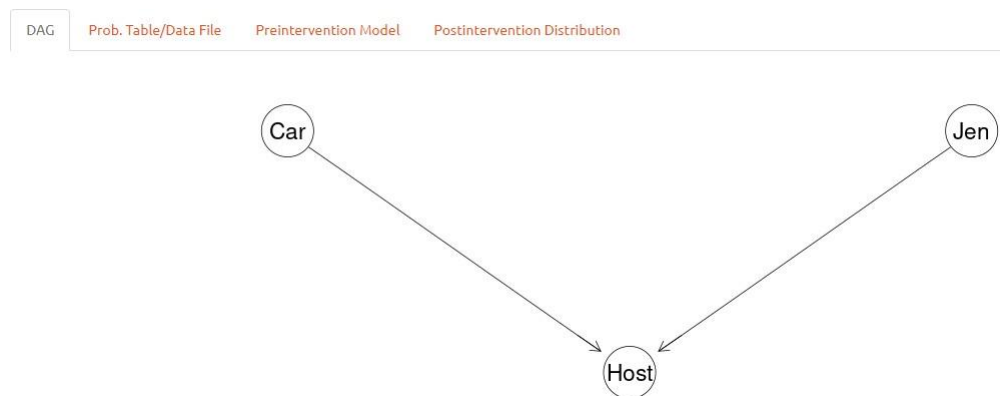
Step 2: In the third panel on the left, select a variable and complete its conditional probability table in the **Prob. Table/Data File** tab.

Complete the probability table(i.e., the row sum of each row is one) for
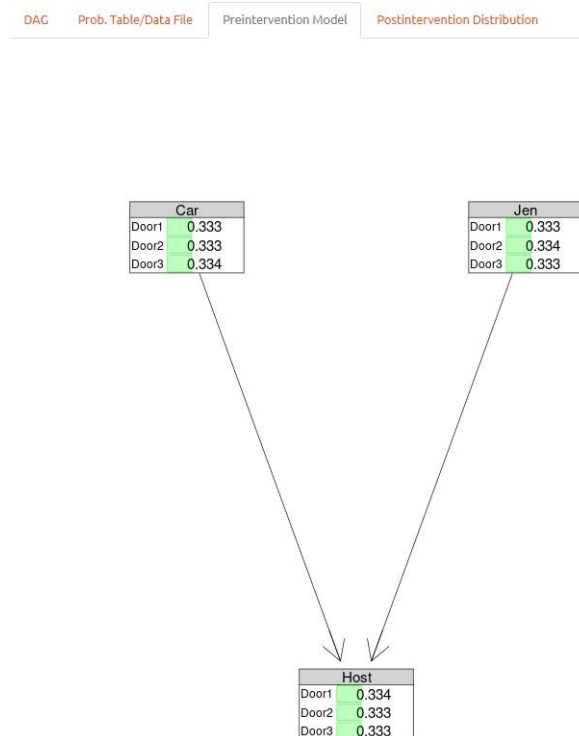- ● Jen
- ○ Car
- ○ Host

Apply

	Door1	Door2	Door3
1	1/3	1/3	1/3

After that, press **Apply** to load the table into the BN model. Repeat this step for each variable in the example.

Step 3: After all the probability tables in one example are completed, press **Compile** to build the preintervention model that will be shown in the **Preintervention Model** tab.

Step 4: Variable intervention and manipulation can be done in the two panels as shown below

First, specify the variables you want to intervene on and then fix the variables at selected states. Second, select the variable to view its postintervention conditional (and marginal, if it is the effect variable) distributions in the **Postintervention Distribution** tab. (Note: due to space limit, the conditional distribution for some variable is not fully displayed.)
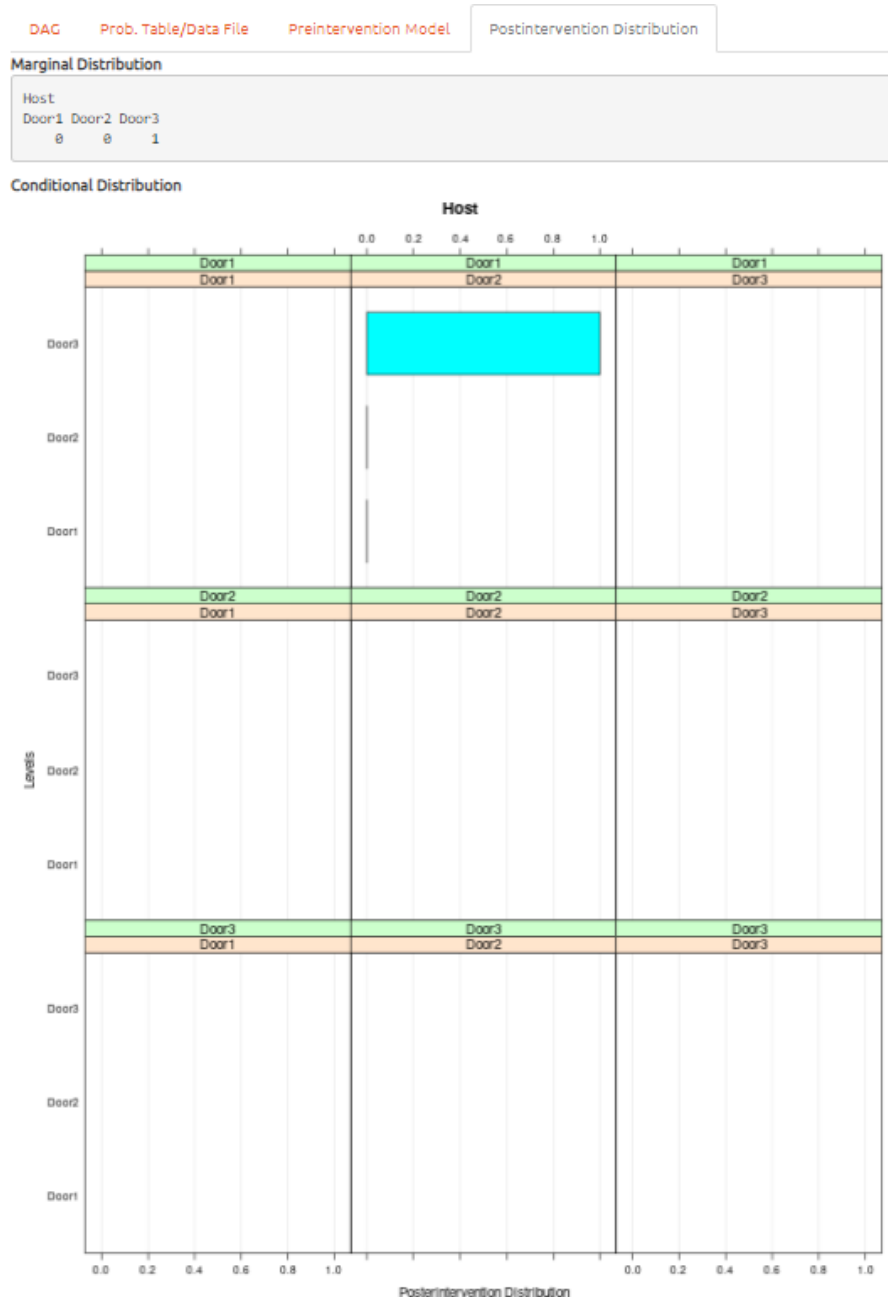
When selecting Example 5 *Effect of Smoking on Forced Expiratory Volume* in **Step 1**, instead of completing the conditional probability tables manually in **Step 2**, you press **Load** to load the example data file directly from JSDE website

The loaded data will show in the **Prob. Table/Data File** tab.

Show 10 ⌄ entries   Search: [   ]

Age ⇕	FEV ⇕	Height ⇕	Sex ⇕	Smoke ⇕
9	1.708	57	0	0
8	1.724	67.5	0	0
7	1.72	54.5	0	0
9	1.558	53	1	0
9	1.895	57	1	0
8	2.336	61	0	0
6	1.919	58	0	0
6	1.415	56	0	0
8	1.987	58.5	0	0
9	1.942	60	0	0
Age	FEV	Height	Sex	Smoke

Showing 1 to 10 of 654 entries   Previous 1 2 3 4 5 … 66 Next

You can then follow the other steps instructed above to complete the example.