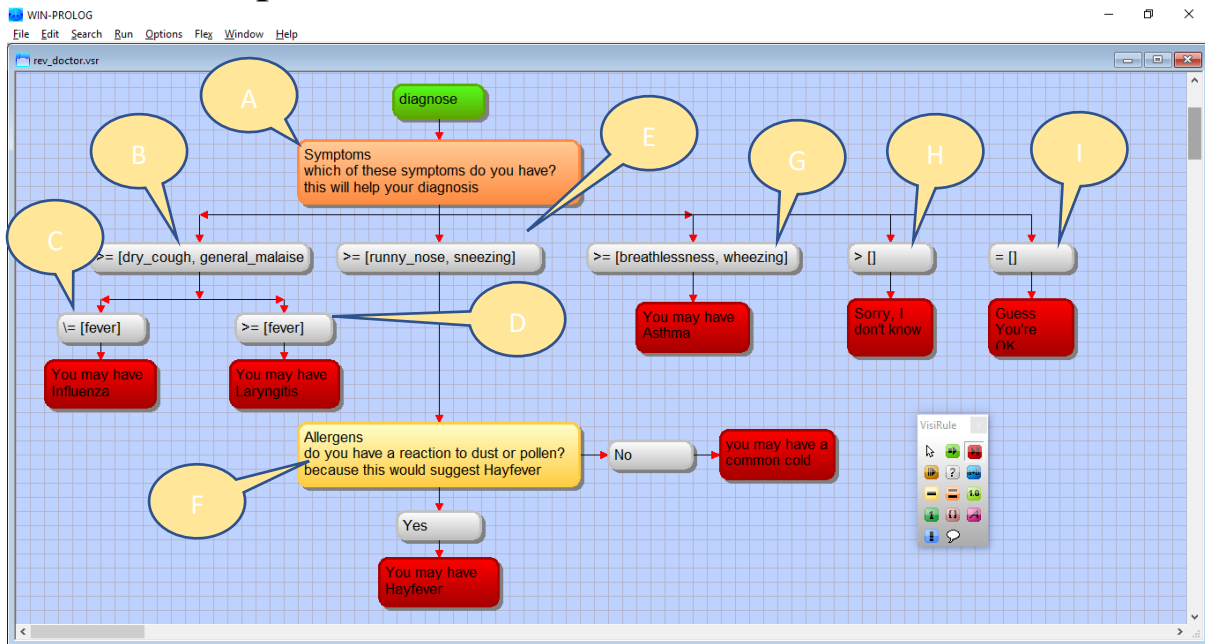


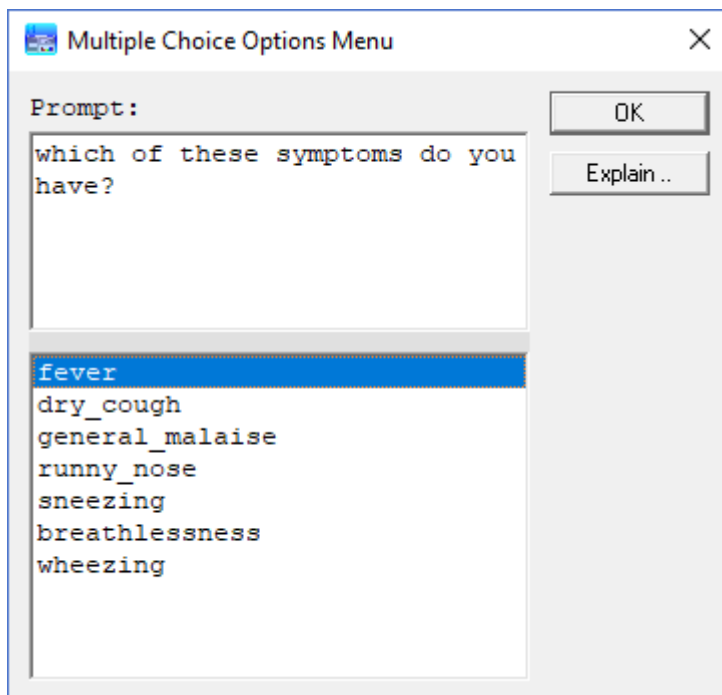
Doctor example



In the above chart, we ask a multi-choice (multiple selections) question with 7 options and then process the answer; this example uses 4 Comparison Operators (>=, >, = and \=). It also uses the logical operator 'or', a single-choice question, and it uses structured branching.

A] Symptoms

This is a multiple choice question which has 3 expressions hanging off of it; i.e. 3 branches to be explored. Note they are not exhaustive --- which means that some answer combinations are not catered for and will fail.



B] >= [dry_cough,general_malaise]

This is an expression which checks to see if the answer contains both dry_cough and general_malaise (Note: we are using underscores so we have no spaces in the answers, and so do not need to use quotes)

1] The LHS is empty, i.e. there is nothing before the Comparison Operator, so VisiRule knows to use the last question asked

2] >= is a Comparison Operator which means that the LHS must contain all the items in the RHS, and can have extra ones too, for the expression to succeed

3] square brackets '[' and ']' are used to contain sets

4] [dry_cough,general_malaise] denotes the set containing 2 items

This expression will succeed if the user has chosen both items (and possibly others)

If this expression fails, VisiRule will try another.

C] \= [fever]

This is an expression which checks to see that the answer does NOT contain fever.

This is sometimes called a sub-expression or a structured expression, as it is an expression which directly follows another expression and both relate to the same question.

1] The LHS is empty, there is nothing before the Comparison Operator, so VisiRule knows we are using the last question

2] \= is a Comparison Operator which means that the LHS must NOT contain the item on the RHS; so \= [fever] means the answer does not contain 'fever'

This expression will succeed if the user has NOT included fever and the conclusion then reached.

D] >= [fever]

This is an expression which checks to see that the answer does contain fever

This is sometimes called a sub-expression or a structured expression, as it is an expression which directly follows another expression and both relate to the same question.

1] The LHS is empty, there is nothing before the Comparison Operator, so VisiRule knows we are using the last question

2] >= is a Comparison Operator which means that the LHS must contain all the items in the RHS for the expressions to succeed so >= [fever] means the answer contains 'fever' (and possibly other items too)

This expression will succeed if the user has included fever and the conclusion then reached.

E] >= [runny_nose, sneezing]

This is an expression which checks to see if the answer contains both `runny_nose` and `sneezing` (Note: we are using underscores, we have no spaces in the answers, and so do not need to use quotes)

1] The LHS is empty, i.e. there is nothing before the Comparison Operator, so VisiRule knows we are using the last question (Symptoms)

2] `>=` is a Comparison Operator which means that the LHS must contain all the items in the RHS for the expressions to succeed

3] `[` and `]` are used to contain sets

4] `[runny_nose, sneezing]` denotes the set containing 2 items

This expression will succeed if the user has chosen both items (and possibly others)

If this expression fails, VisiRule will try another.

F] Allergens

This is single choice question which asks a simple Yes or No question and branches accordingly

G] `>= [breathlessness, wheezing]`

This is an expression which checks to see if the answer contains both `breathlessness` and `wheezing` (not as we are using underscores, we have no spaces in the answers, and so do not need to use quotes)

1] The LHS is empty, i.e. there is nothing before the Comparison Operator, so VisiRule knows we are using the last question

2] `>=` is a Comparison Operator which means that the LHS must contain all the items in the RHS for the expressions to succeed

3] `[` and `]` are used to contain sets

4] `[breathlessness, wheezing]` denotes the set containing 2 items

This expression will succeed if the user has chosen both.

If this expression fails, VisiRule will try another.

H] `> []`

This expression is used to match all other non-empty selections.

This is an expression which checks to see if the answer contains ‘something’ as all non-empty sets are deemed to contain the empty set

1] The LHS is empty, i.e. there is nothing before the Comparison Operator, so VisiRule knows we are using the last question

2] > is a Comparison Operator which means that the LHS must contain all the items in the RHS for the expressions to succeed. As we are comparing with the empty set, [], that means that the answer must contain at least one item to succeed

3] '[' and ']' are used to contain sets

4] [] denotes the empty set

This expression will succeed if the user has chosen any item.

[] = []

This expression is used to match the empty set.

This is an expression which checks to see if the answer contains no initial selection

1] The LHS is empty, i.e. there is nothing before the Comparison Operator, so VisiRule knows we are using the last question

2] = is a Comparison Operator which means that the LHS must equal the

3] '[' and ']' are used to contain sets

4] [] denotes the empty set

This expression will succeed if the user has NOT chosen any item.