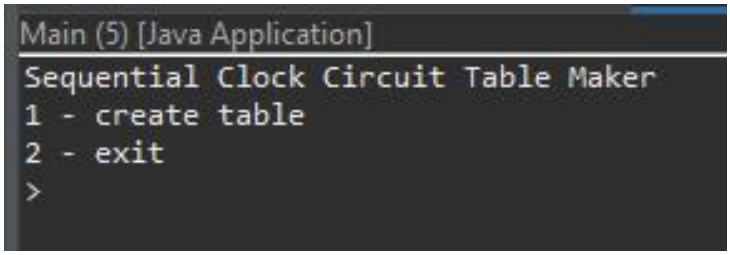
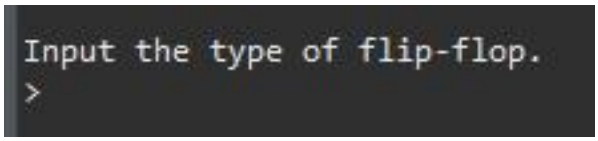
*Note: Eclipse is being used to run the program for this example**

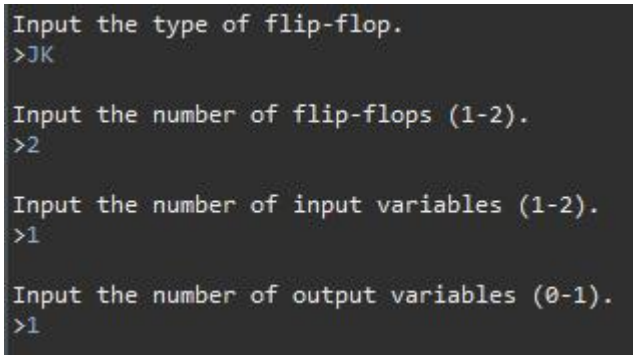
Firstly, run the program. The image below you is what you'll see first:



Type a number from 1 to 2. The ">" symbol will indicate the input marker for this program. Inputting anything else other than 1 or 2, the program will prompt you to input again. If you input "2", the program will be terminated. If you input "1", it will bring you here:



You can input one of the four types of flip-flops namely: D, T, RS, and JK. Capitalization doesn't matter for this. Inputting anything else will prompt you to input again. For this example, we'll use JK. For the next part, it's a series of inputting the number of flip-flops and variables as seen below:

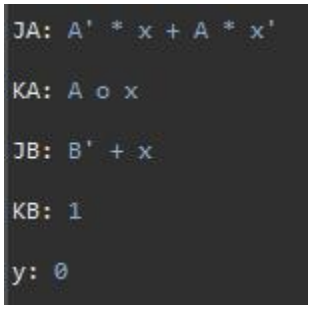


After inputting correctly, you'll have to input expressions beside the colon. Letters A and B represent the flip flops while letters x, y, and z represent the variables. They work chronologically depending on the quantity of those. For example, since two flip-flops are used, A and B can be used for the expressions. One input variable is used; therefore, only x can be used for the expressions. There's one output variable which will be the letter y, and this is

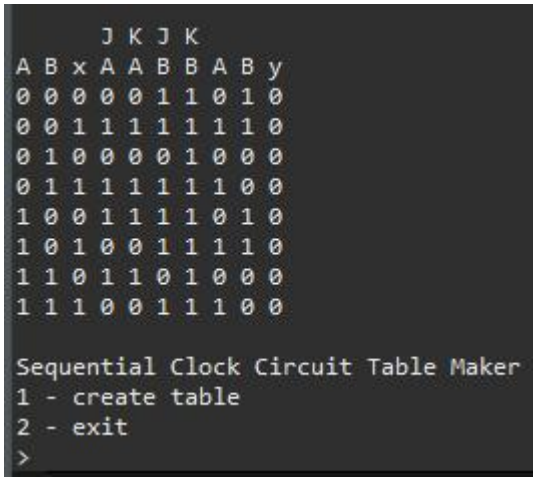
an input function (y will not be used in the expressions). These symbols are used for the operations:

- An asterisk “*” is “and”
- The letter “o” is “xor”
- A plus sign “+” is “or”
- An apostrophe “ ‘ ” is compliment (to be used on the right side) of a letter.

The “xor” sign has the same precedence as “and”, and they’re both greater than “or”. There may or may not be spaces in between for the expressions. Inputting incorrectly or incorrect variables will cause an error in the program, and it will be terminated. You may also input 0 or 1. Below is an example of these expressions (notice that JA and KA are just the same):



After this, the calculation happens as well as the next state depending on the type of flip-flop, and the table is created. The menu appears at the bottom.



Since the menu is back again, you may create another table or you may exit.

Here’s another example of a this:

```
Sequential Clock Circuit Table Maker
1 - create table
2 - exit
>1

Input the type of flip-flop.
>RS

Input the number of flip-flops (1-2).
>2

Input the number of input variables (1-2).
>2

Input the number of output variables (0-1).
>1

RA: A + B + x + y

SA: A o B o x o y

RB: A * B * x * y

SB: 0

z: 1
```

```
       R S R S
A B x y A A B B A B z
0 0 0 0 0 0 0 0 0 0 1
0 0 0 1 1 1 0 0 ? 0 1
0 0 1 0 1 1 0 0 ? 0 1
0 0 1 1 1 0 0 0 1 0 1
0 1 0 0 1 1 0 0 ? 1 1
0 1 0 1 1 0 0 0 1 1 1
0 1 1 0 1 0 0 0 1 1 1
0 1 1 1 1 1 0 0 ? 1 1
1 0 0 0 1 1 0 0 ? 0 1
1 0 0 1 1 0 0 0 1 0 1
1 0 1 0 1 0 0 0 1 0 1
1 0 1 1 1 1 0 0 ? 0 1
1 1 0 0 1 0 0 0 1 1 1
1 1 0 1 1 1 0 0 ? 1 1
1 1 1 0 1 1 0 0 ? 1 1
1 1 1 1 1 0 1 0 1 1 1

Sequential Clock Circuit Table Maker
1 - create table
2 - exit
>
```