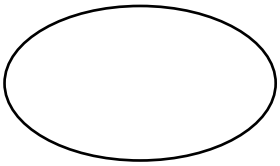
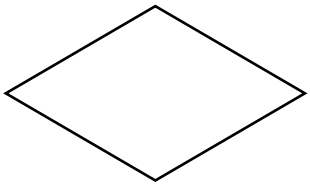
Flowchart2Code

Guidelines

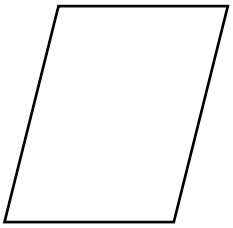


Terminator (used to start and end flowchart)

Data (used for declaring variables and changing value of variables)

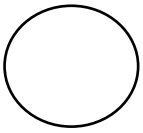


Decision (used for using conditional statements and loops)



Process (used for taking input and output)

Arrow (used to connect the elements of flowchart)



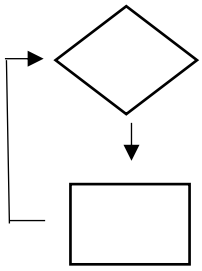
Connector (used to connect one process flow with another)

General Guidelines:

- Keywords such as START, END, INPUT, OUTPUT should be in capital letters.
- Every flowchart should have 'START' terminator. 'END' terminator is optional but is better if used. 'START' can only be used one time but 'END' can be used multiple times.
- All variables used in the flowchart need to be declared along with their type. Supported types: int, char, string and float.
- Only one variable can be processed upon in one Data box. Separate Data boxes are to be used for multiple variable initializations and declarations.
- Declaration and definition of one variable in a single data box is valid. E.g. *int a=10* is valid.
- Only the condition must be there in Decision box. **Use of IF keyword is not required.**
- Only one variable or string can be input or output per Process box.
- New line can be printed using: OUTPUT "\n" (similarly for "\t")
- Use of ++, -- operators is not supported for python. Use '&','|' or the words 'and', 'or' (with spaces in small) in conditions. E.g.-a=0&b=0, a=0 and b=0
- '&&', '||' are also valid in conditions.
- An arrow needs to have a condition box on at least one side for valid loops.
- Loop arrow denotes that the condition is true.

For Image Input:

- **Connectors are not supported in image input.**
- Make sure the input image is clear and not blurred to improve accuracy.
- Use capital letters to improve text recognition.
- **In case of Decision boxes, arrow in the bottom represents that the condition is true and arrow to the right represents that the condition is false**.
- For loops, arrow should be to the left of the boxes. E.g.-:



For XML Input:

- Following is the format for defining the flowchart in the XML file:

```
<node>
        <type>terminator</type> //type of box
        <id>1</id> //id of the node to identify
        <text>START</text> //text inside the box
</node>

<node>
        <type>data</type>
        <id>2</id>
        <text>int n</text>
        <down>1</down> //id of node to which it is down, <right> is similar to it
        <loop>3<loop> //id of node to which loop arrow is pointing to
</node>
```

- Following types are valid: connector, process, decision, data, terminator.
- In case of connectors *down* and *right* denotes the id of the boxes which it is connecting. Both are mandatory and none of them can be empty!
- Connectors can only connect 2 program flows that too from the same condition box. To connect multiple program flows and from different condition boxes, multiple connectors are to be used.
- Similar to image input, node which is down to the condition box represents that the condition is true and right one represents false.

SEE SAMPLES TO UNDERSTAND BETTER