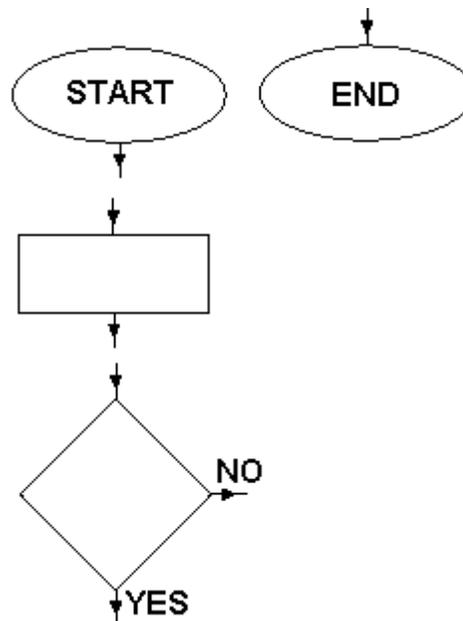


Unit 1 Section 2 : Flow Charts for Practical Tasks

All the flow charts we will be looking at begin with a *Start Point* and finish with an *End Point*. These look like this on the chart :

Most of the boxes on a flow chart are *instructions*, which tell you what to do next. These appear in rectangular boxes like the one shown on the right:

Sometimes a question needs to be answered to decide what instruction should happen next. These questions are put in *decision* boxes like the one on the right:



To construct a flow chart we need to think about the order in which the operations need to occur, then draw the chart.

Flow Chart Example 1

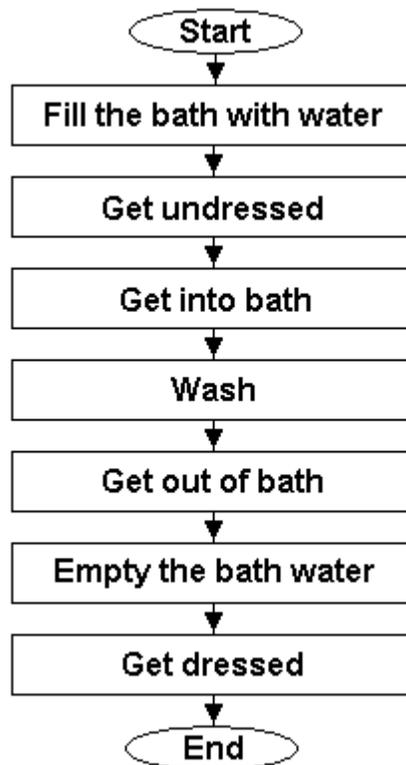
We will now draw a flow chart for having a bath.

We start by thinking about the steps involved:

- (1) Fill the bath with water
- (2) Get undressed.
- (3) Get into bath.
- (4) Wash.
- (5) Get out of bath.
- (6) Empty the bath water.
- (7) Get dressed.

Now we need to draw the chart with instruction boxes. There are no decisions on this chart - the steps all follow on from one another. Remember the **Start** and **End** boxes.

The final chart is shown on the right. Of course some people might do some of these steps in a different order, but hopefully they get undressed before getting in the bath!



Flow Chart Example 2

The step *Fill the bath with water* in the previous example could have been more detailed. For example, you need to check if there is enough water and whether it is at the right temperature while running the bath.

Again we need to think about the steps involved:

- (1) Turn on the hot and cold taps.
- (2) Is it too hot or cold? If it is, go to step 3, otherwise go to step 4.
- (3) Adjust the hot and cold taps and go back to step 2.
- (4) Wait for 2 minutes.
- (5) Is the bath full? If it is, go to step 7, otherwise go to step 6.
- (6) Go back to step 4.
- (7) Turn off the hot and cold taps.

Now we need to draw the chart. This time we need to use decision boxes for steps 2 (where the temperature of the water is checked) and 5 (where it is checked if the bath is full).

The final chart is shown on the right.

