Guide to Flowchart Symbols, from Basic to Advanced

DIAGRAMS FOR SOFTWARE ENGINEERING

Symbols for Creating a Flowchart

A flowchart is simply a graphical representation of steps. It shows steps in sequential order and is widely used in presenting the flow of algorithms, workflow or processes. Typically, a flowchart shows the steps as boxes of various kinds, and their order by connecting them with arrows.

1. The Oval

An End or Beginning While Creating a Flowchart

The oval, or **terminator,** is used to represent the start and end of a process. Use the Gliffy flowchart tool to drag and drop one of these bad boys and you've got yourself the beginning of a flowchart. Remember to use the same symbol again to show that your flowchart is complete.

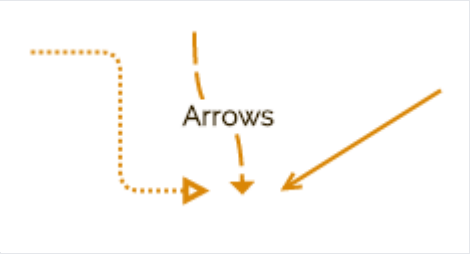
2. The Rectangle

A Step in the Flowcharting Process

The rectangle is your go-to symbol once you've started flowcharting. It represents any step in the process you're diagramming and is the workhorse of the flowchart diagram. Use rectangles to capture **process steps** like basic tasks or actions in your process.

3. The Arrow

Indicate Directional Flow



The **arrow** is used to guide the viewer along their flowcharting path. And while there are many different types of arrow tips to choose from, we recommend sticking with one or two for your entire flowchart. This keeps your diagram looking clean, but also allows you to emphasize certain steps in your process.

4. The Diamond

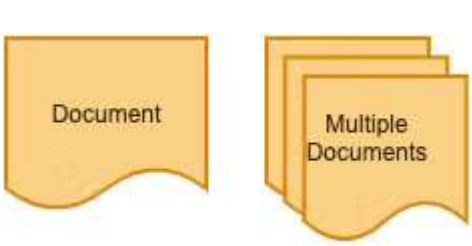
Indicate a Decision

The diamond symbolizes that a **decision** is required to move forward. This could be a binary, this-or-that choice or a more complex decision with multiple choices. Make sure that you capture each possible choice within your diagram.

Intermediate & Advanced Flowchart Symbols

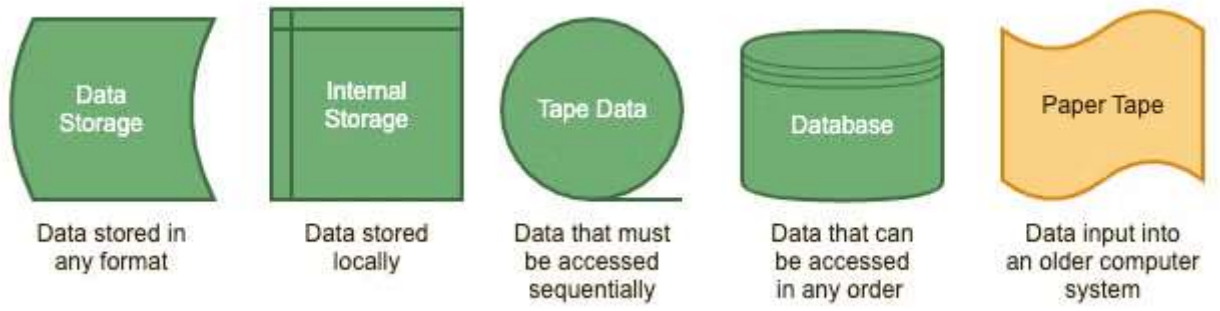
As you know, flowcharts are made up of a sequence of actions, data, services, and/or materials. They illustrate where data is being input and output, where information is being stored, what decisions need to be made, and which people need to be involved. In addition the basic flowchart conventions, rules, and symbols, these intermediate flowchart symbols will help you describe your process with even more detail.

Document Symbols



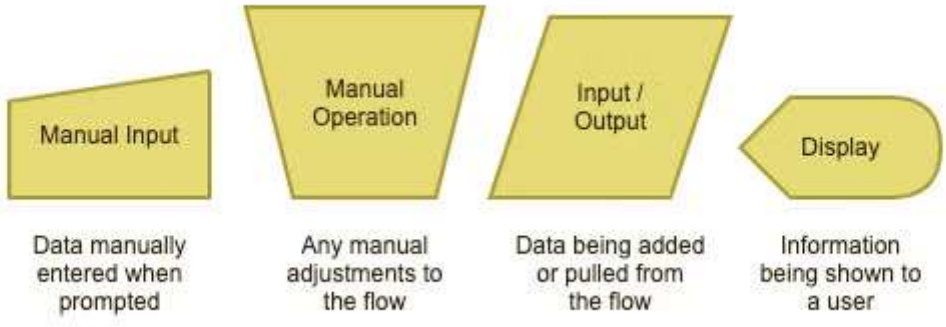
Single and multiple document icons show that there are additional points of reference involved in your flowchart. You might use these to indicate items like “create an invoice” or “review testing paperwork.”

Data Symbols



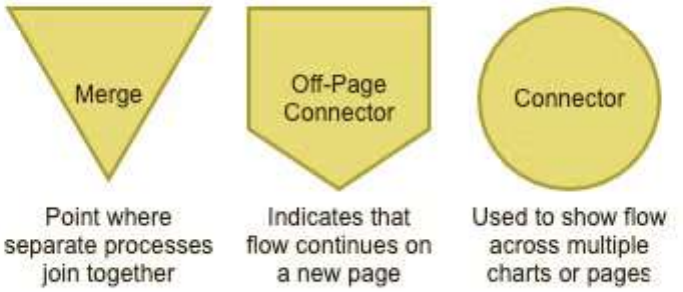
Data symbols clarify where the data your flowchart references is being stored. (You probably won’t use the paper tape symbol, but it definitely came in handy back in the day.)

Input & Output Symbols



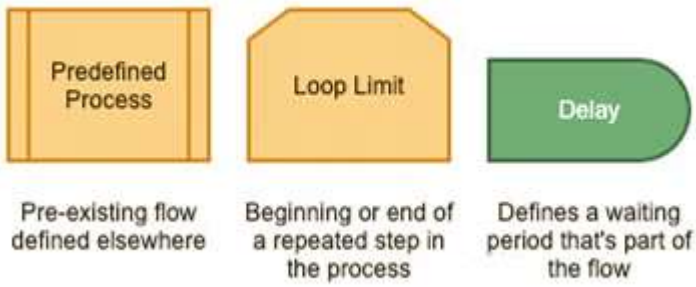
Input and output symbols show where and how data is coming in and out throughout your process.

Merging & Connecting Symbols

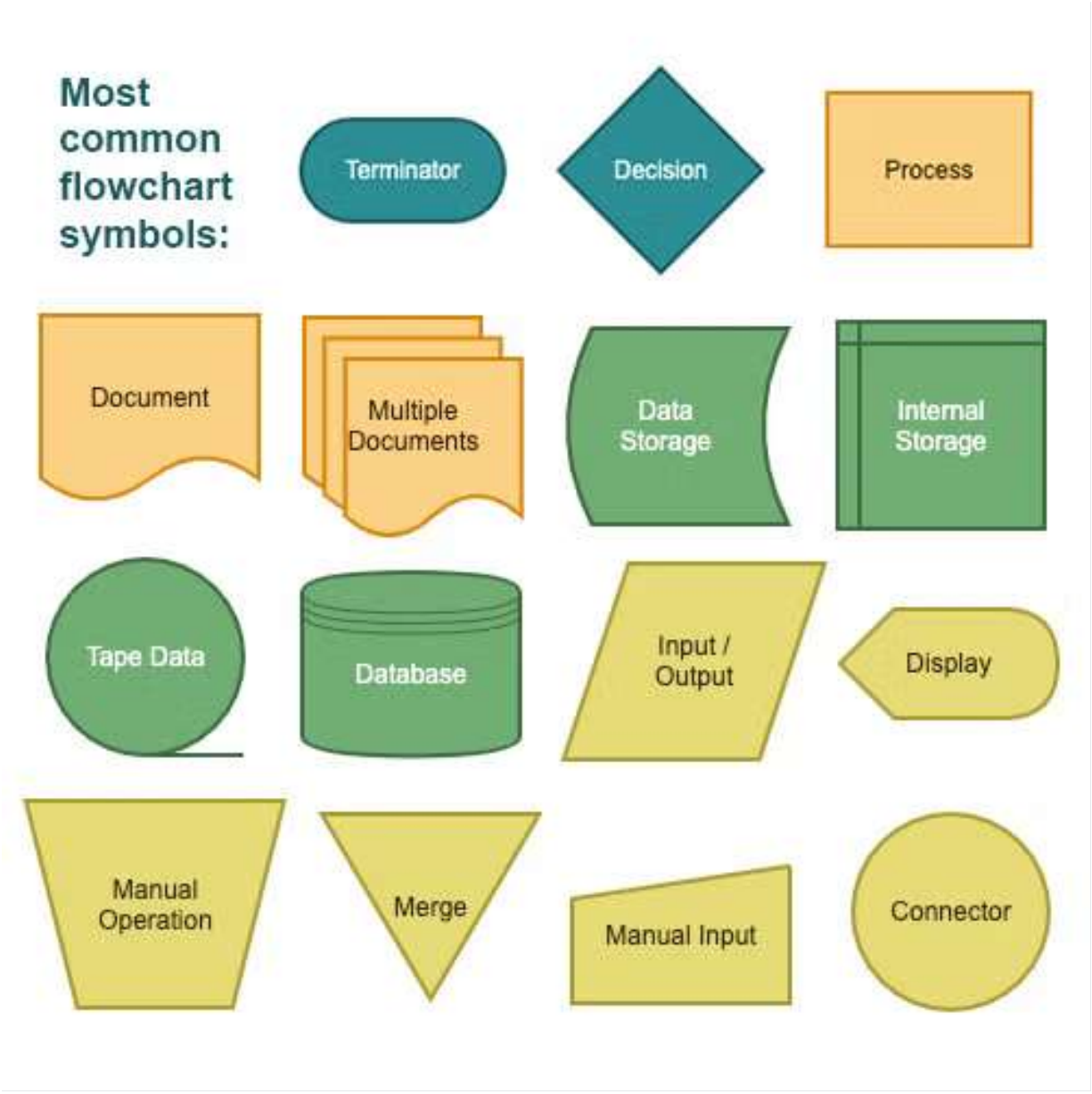


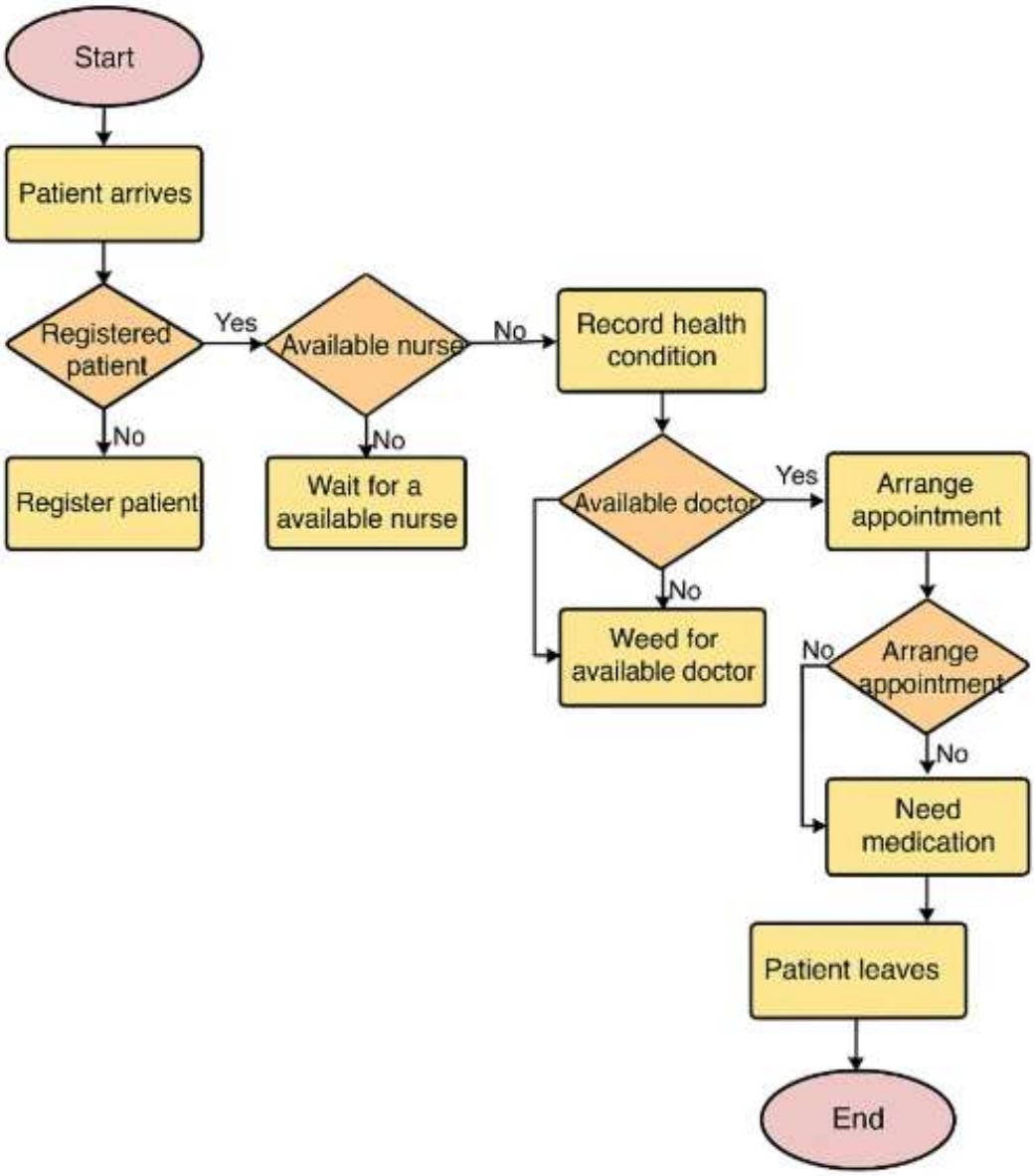
Agreed-upon merging and connector symbols make it easier to connect flowcharts that span multiple pages.

Additional Useful Flowchart Symbols

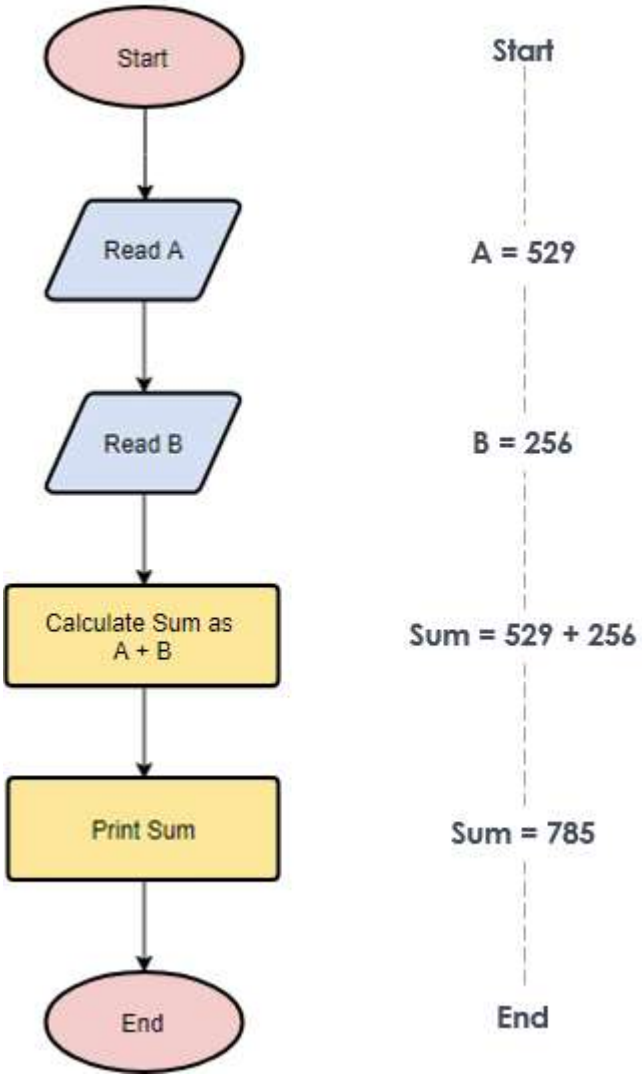


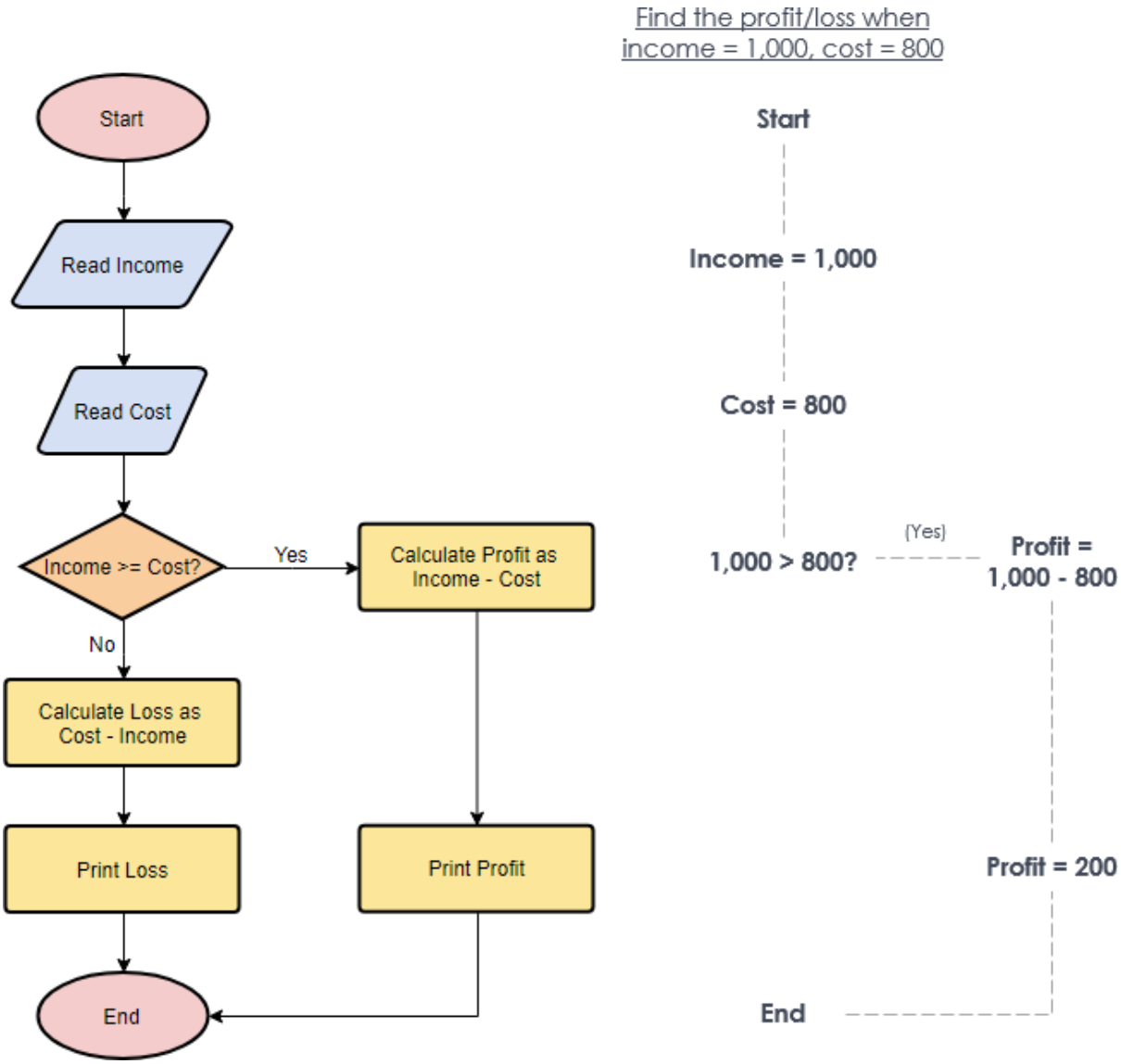
The above are a few additional symbols that prove your flowcharting prowess when put to good use.


Most common flowchart symbols:
Terminator
Decision
Process
Document
Multiple Documents
Data Storage
Internal Storage
Tape Data
Database
Input / Output
Display
Manual Operation
Merge
Manual Input
Connector


Start
Patient arrives
Registered patient
Yes
Available nurse
No
Record health condition
No
Register patient
No
Wait for a available nurse
Available doctor
Yes
Arrange appointment
No
Weed for available doctor
No
Arrange appointment
No
Need medication
Patient leaves
End

Find the sum of 529 and 256





Symbols and Their Meanings

Symbol	Name	Purpose in This Flowchart	Example in the Diagram
Oval (Ellipse)	**Terminator (Start/End)**	Shows the **beginning** or **end** of the process.	"Start" and "End"

Parallelogram	**Input/Output Symbol**	Used for **input** (reading data) or **output** (displaying results).	“Read Income”, “Read Cost”, “Print Profit”, “Print Loss”
Diamond	**Decision Symbol**	Used for **checking a condition** — it splits the flow based on **Yes/No** or **True/False**.	“Income ≥ Cost ?”
Rectangle	**Process Symbol**	Represents a **processing step** such as calculation or assignment.	“Calculate Profit as Income – Cost”, “Calculate Loss as Cost – Income”
➡ Arrow Lines	**Flow Lines**	Indicate the **direction** of flow or sequence of operations.	Connect all steps top to bottom and through branches.