

Prepared by Eng. Eman Hamdy

Introduction to Information Systems – IT111
Flowchart Part 1

Lecture 7 (Practical)



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Flow Chart component

- A computer program is a **set of instructions that the computer can understand** which it will obey sequentially one after the other.
- A program must be planned and written down as a **set of steps to follow.**
- One method is using visual tools such **as Flowcharts.**

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Flow Chart component

- Flowchart Symbols

- a. **Start** and **end** symbols, represents start and end of a process

Startend

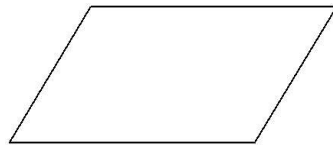
- b. **Arrows**, showing what's called "**flow of control**". An arrow coming from one symbol and ending at another symbol represents that control passes to the symbol the arrow points to.
- c. **Processing**, represented as rectangles. Examples: "Add 1 to X"; "replace identified part"; "save changes" or similar.



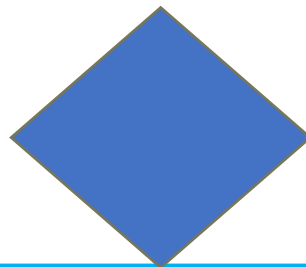
Flow Chart component

- Flowchart Symbols

d. **Input/output**, represented as a parallelogram. Examples: Get X from the user; display X.



e. **Conditional (or decision)**, represented as a diamond. These typically contain a Yes/No question or True/False test. This symbol is unique in that it has two arrows coming out of it, usually from the bottom point and right point, one corresponding to Yes or True, and one corresponding to No or False. The arrows should always be labeled. More than two arrows can be used.

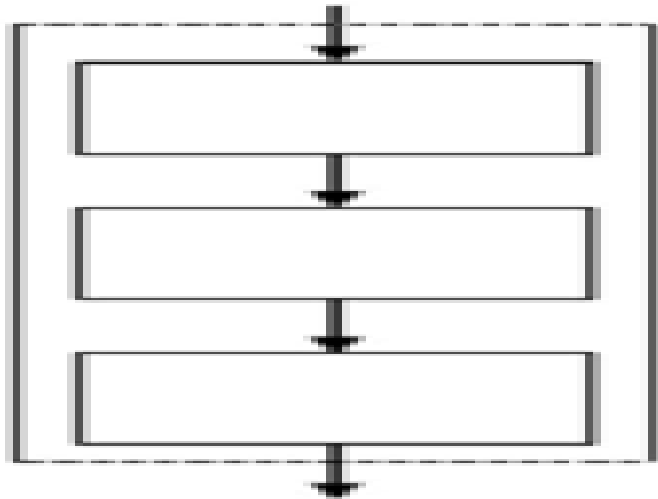


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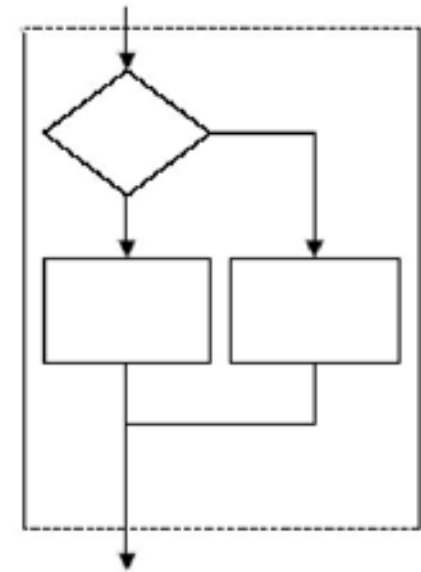
Flow Chart component

Introduce the different structures in flowcharts

a. Sequence Structure



b. If- then-else structure

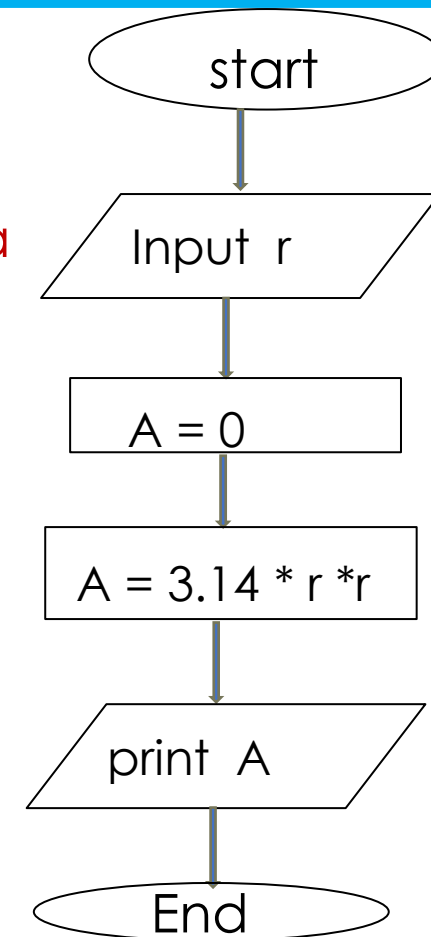


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Flow Chart

a. Sequence Structure

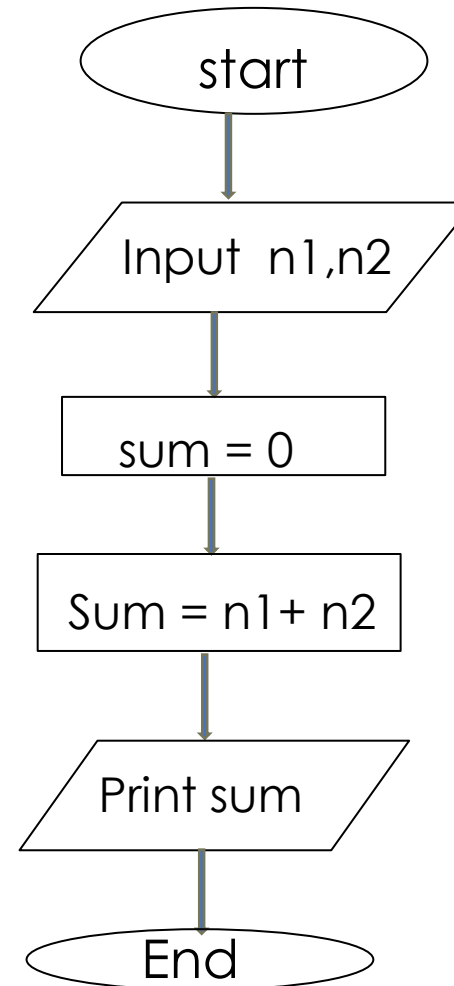
Read radius (R) and calculate circle area



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Flow Chart

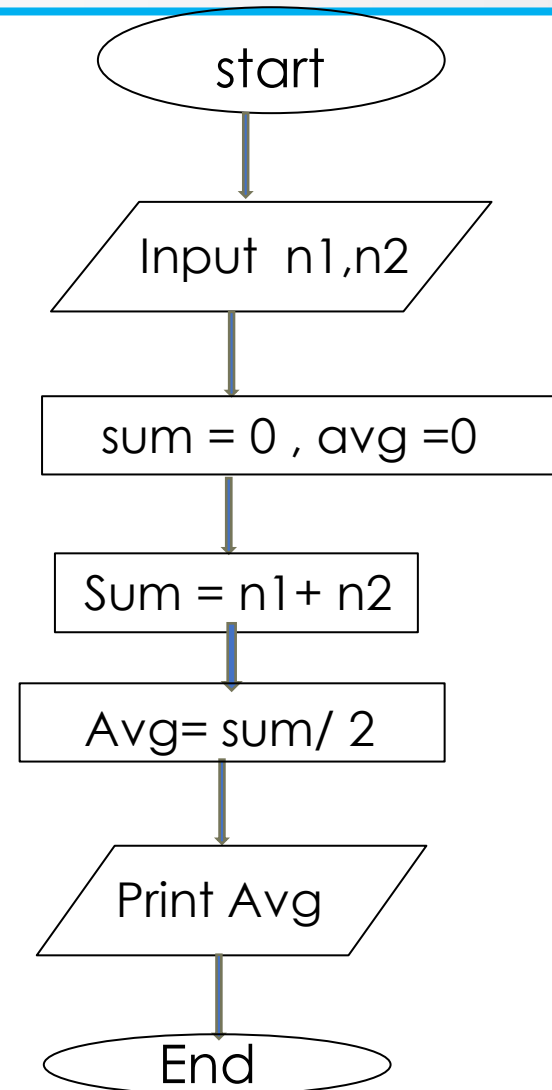
Calculate sum of 2 numbers



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Flow Chart

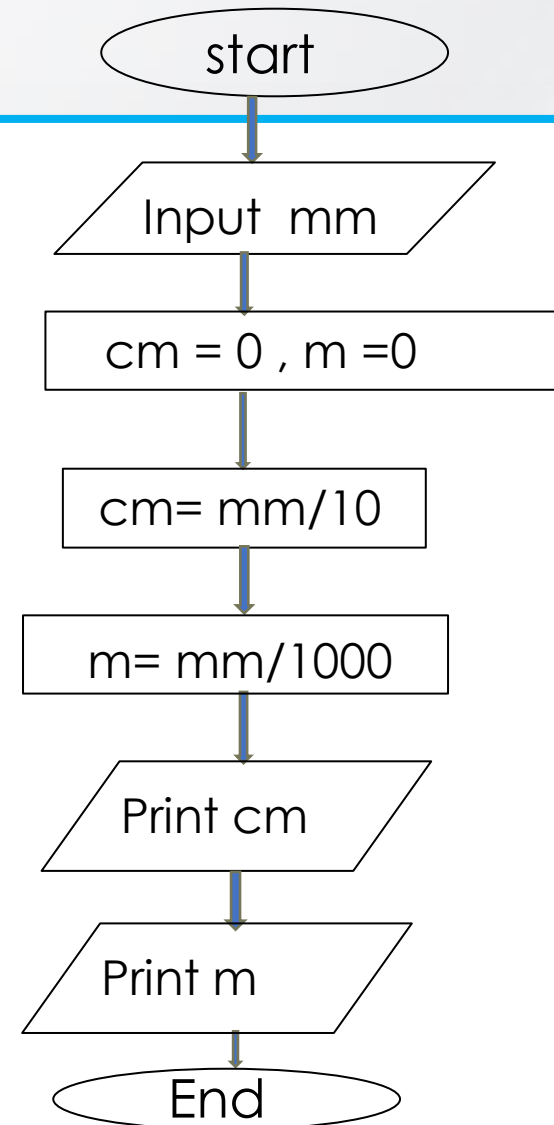
Calculate average of 2 numbers



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Flow Chart

Read distance in millimeter and print distance centimeters and meters.

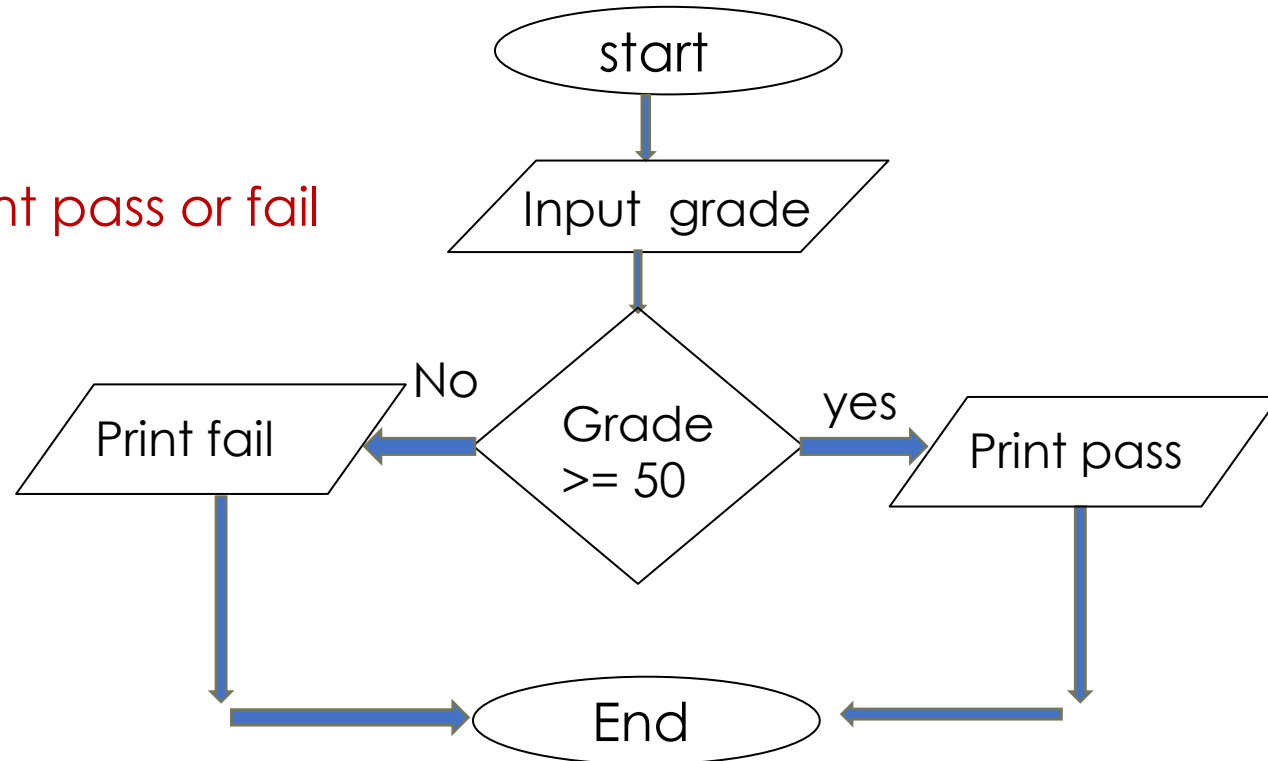


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Flow Chart

b. If- then-else structure

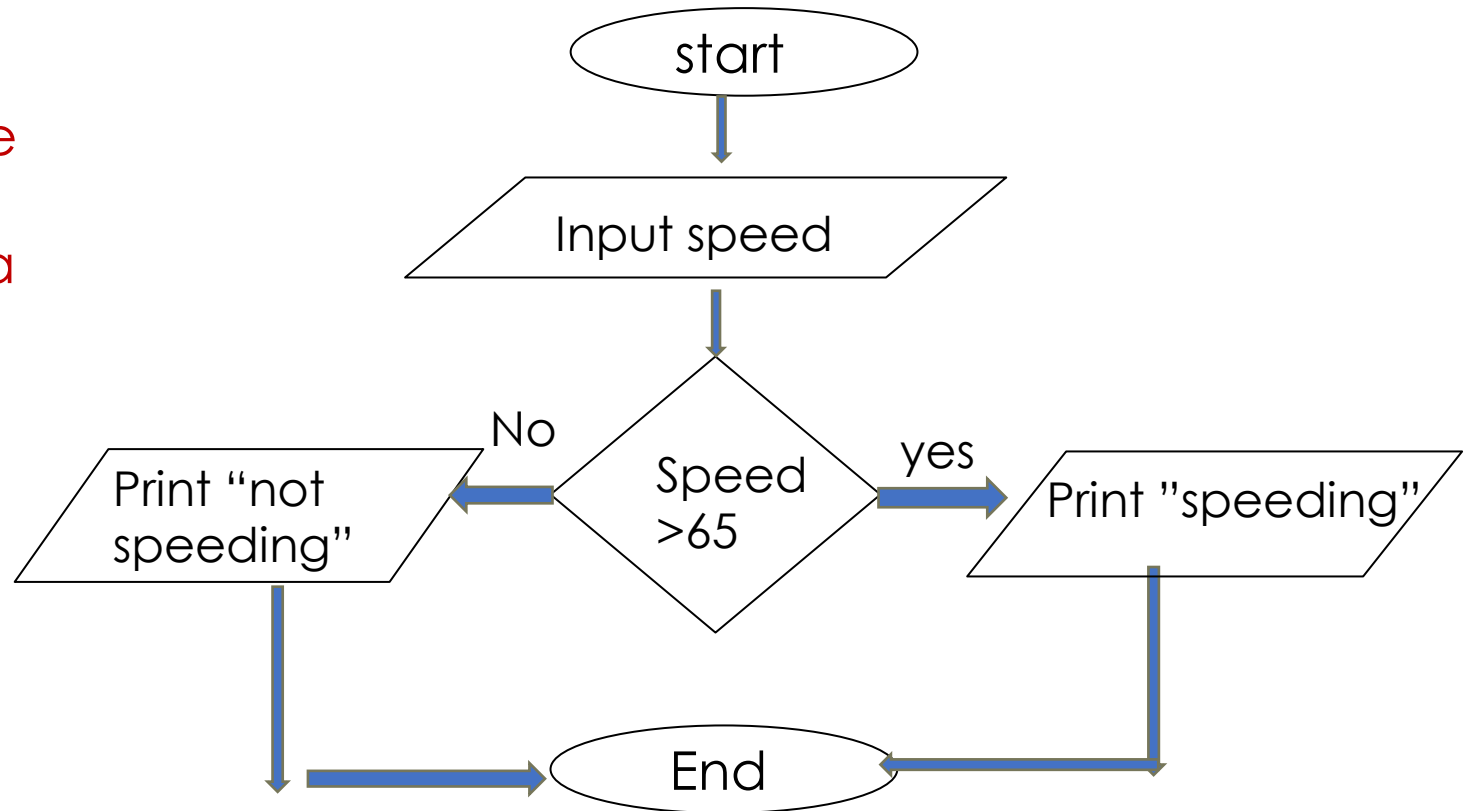
Display student pass or fail



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Flow Chart

Draw flowchart to simulate a state police radar gun , the program should take a car speed
And display the message "speeding" if the speed exceeds 65 mph , "Not speeding" otherwise



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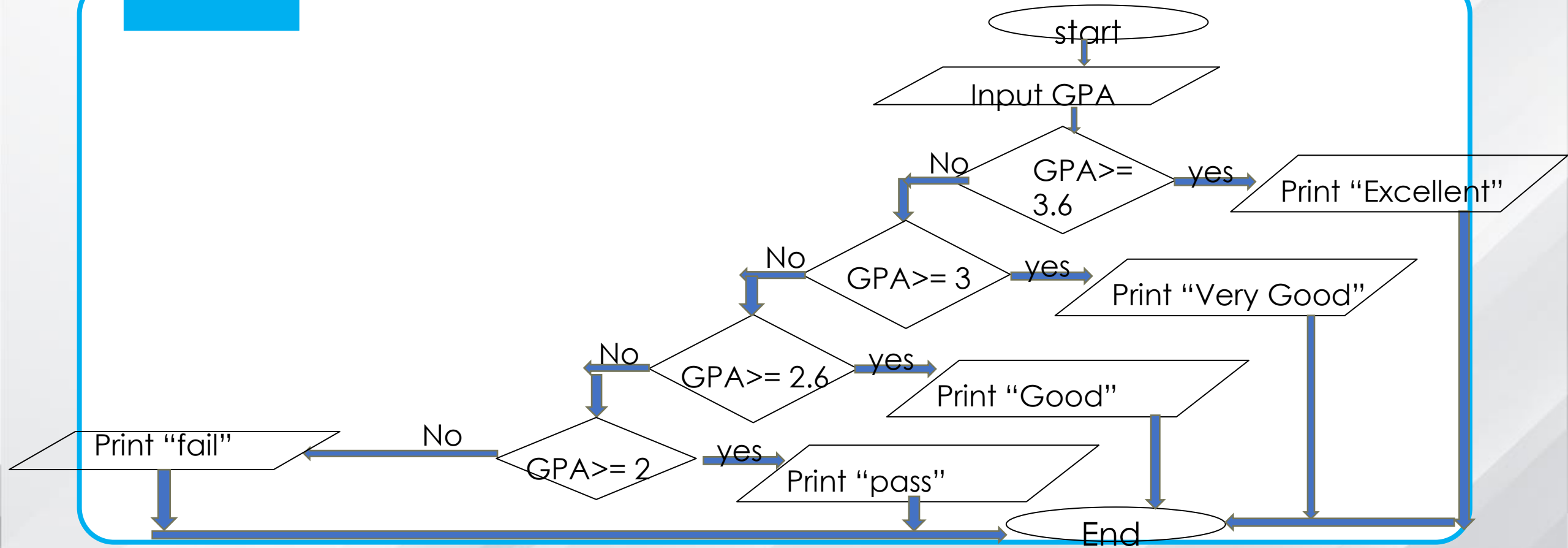
Flow Chart

Draw flowchart to display GPA Grade based on the following:

G.P.A SYSTEM:	Excellent	3.60 TILL	4.00
	Very Good	3.00 LESS THAN	3.60
	Good	2.60 LESS THAN	3.00
	Pass	2.00 LESS THAN	2.60
	Fail	LESS THAN	2.00

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Flow Chart





Thank You