

IAP LAB 2

BY

ENG. JOUD KHATTAB

2 WHAT IS PROGRAMMING?

- Its to write Computer Programs (**Algorithms**) that allow a computer to solve problems in mathematics, physics, science, language, etc.
- An algorithm is an effective method for solving a problem using a **finite sequence of instructions**.
 - Ex: Navigation Instructions.
- An algorithm should be:
 - Complete (Do not forget any necessary steps).
 - Precise (Determine the amount, time, number, length, etc...).
 - Unambiguous (Should not be misunderstood by others).






3 ALGORITHM PROCESS



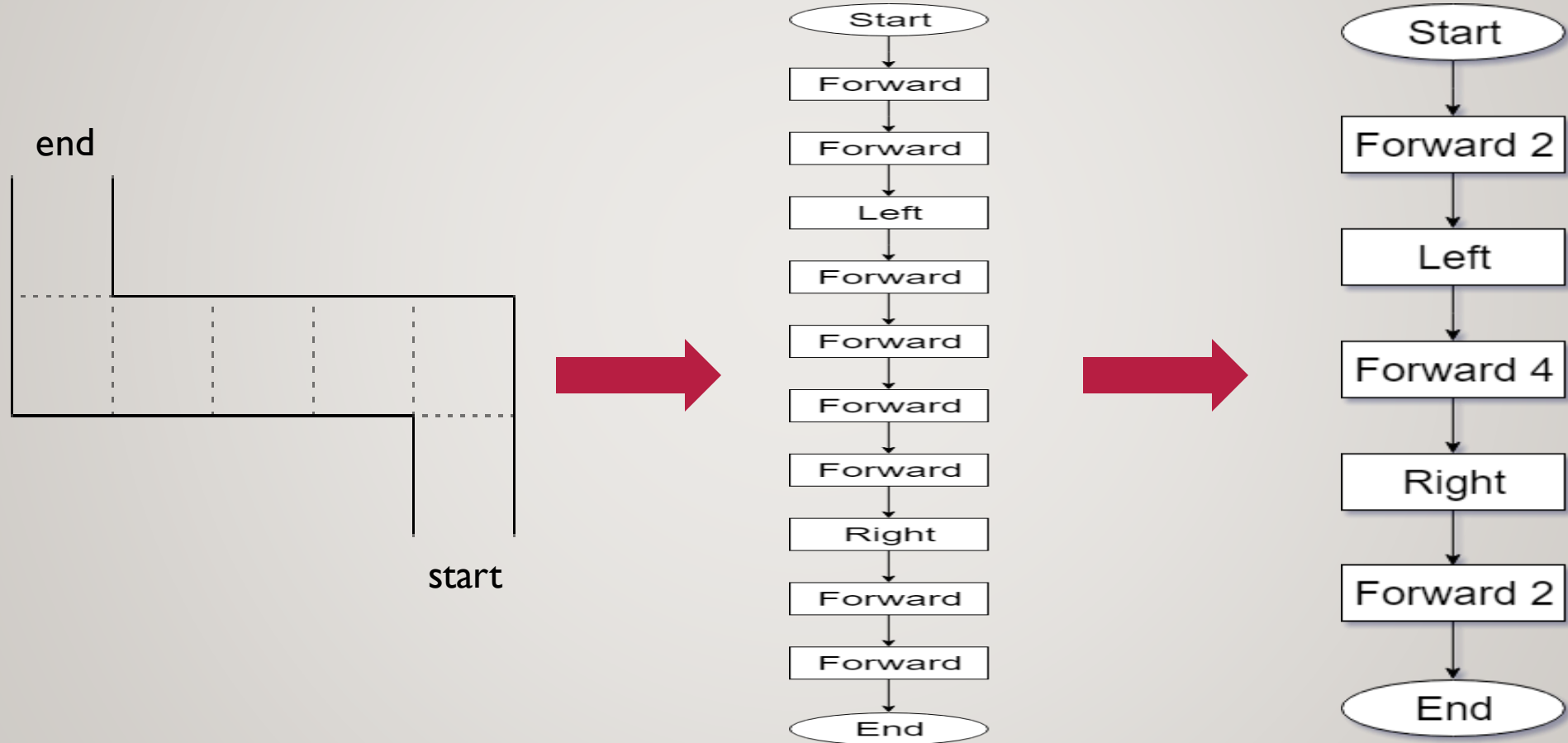
4 FLOWCHART

- A set of drawings are used to express the algorithm in schematic form.
- These charts are a common language for all programmers and a practical way to write any algorithm to be converted into a programming language that is understood by the computer.

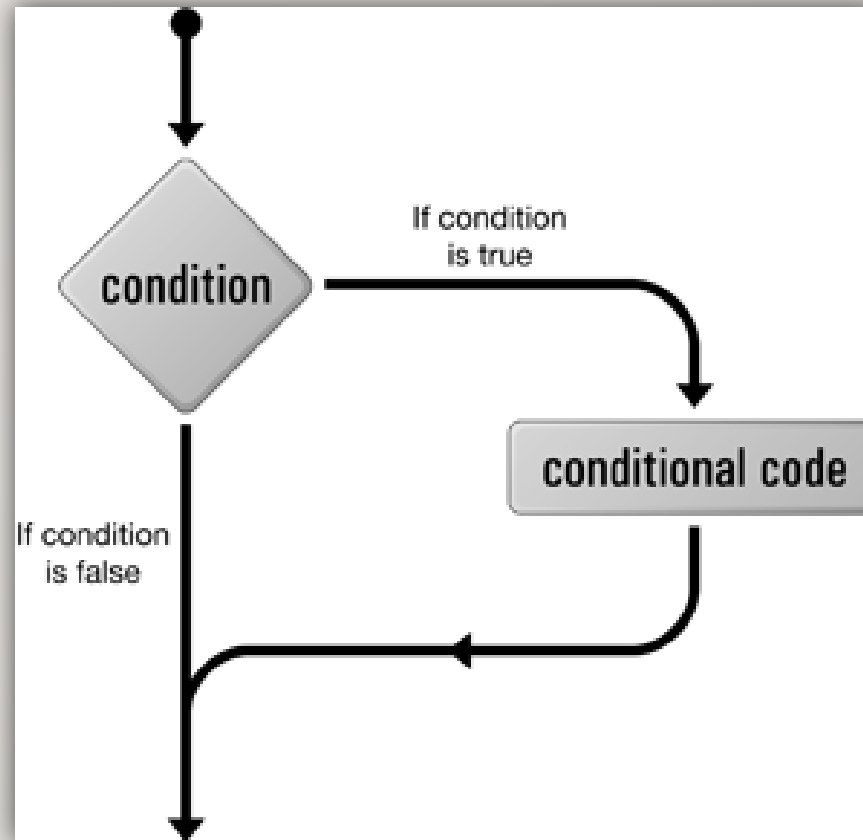
5 FLOWCHART

Symbol	Purpose	Description
	Flow line	Used to indicate the flow of logic by connecting symbols.
	Start / Stop	Used to represent start and end of flowchart.
	Input / Output	Used for input and output operation.
	Processing	Used for arithmetic operations and data-manipulations.
	Decision	Used to represent the operation in which there are two alternatives, true and false.

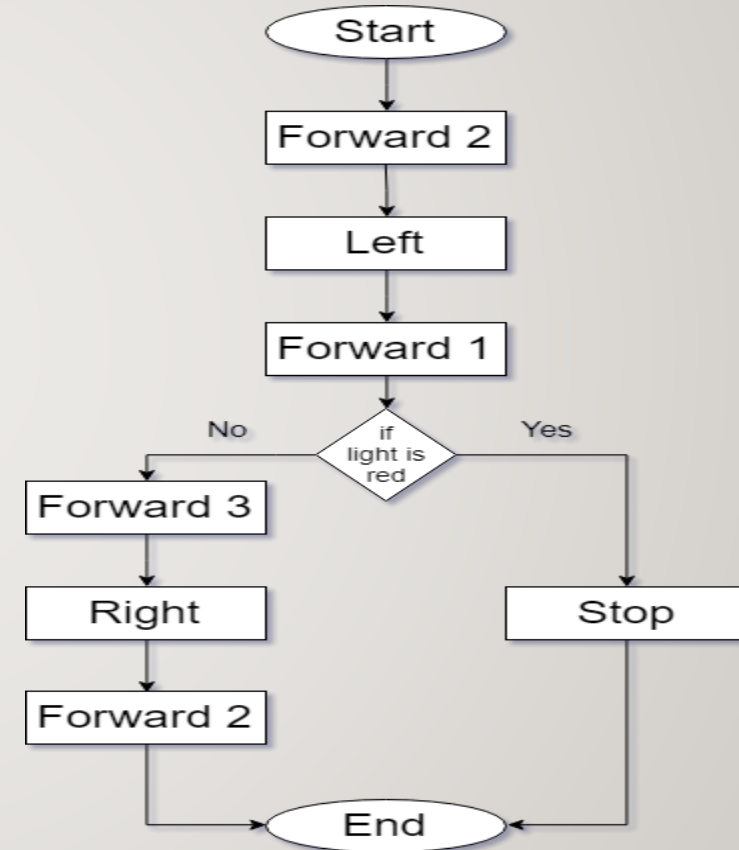
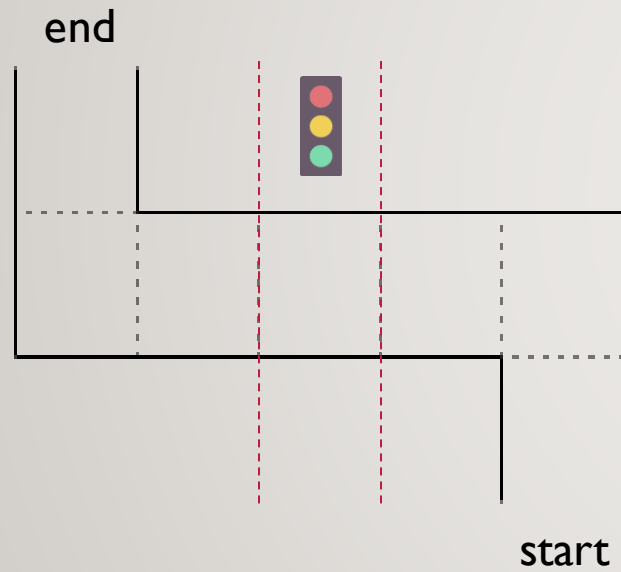
6 EXAMPLE I: MAZE



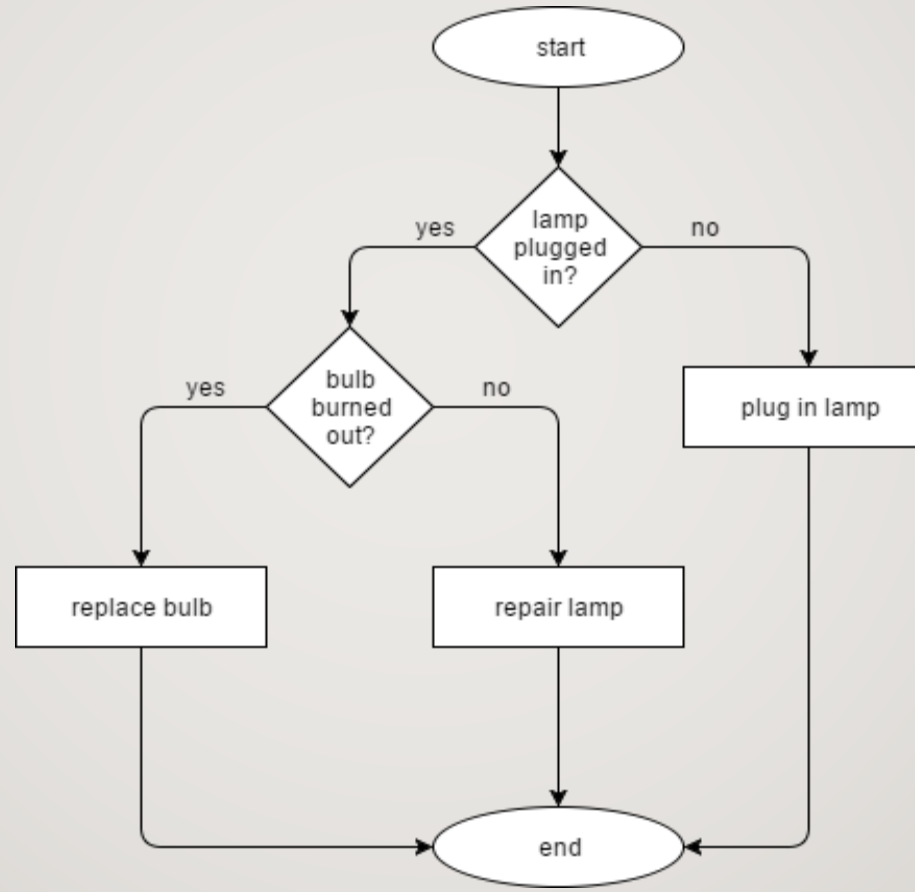
7 IF STATEMENT



8 EXAMPLE 2: MAZE

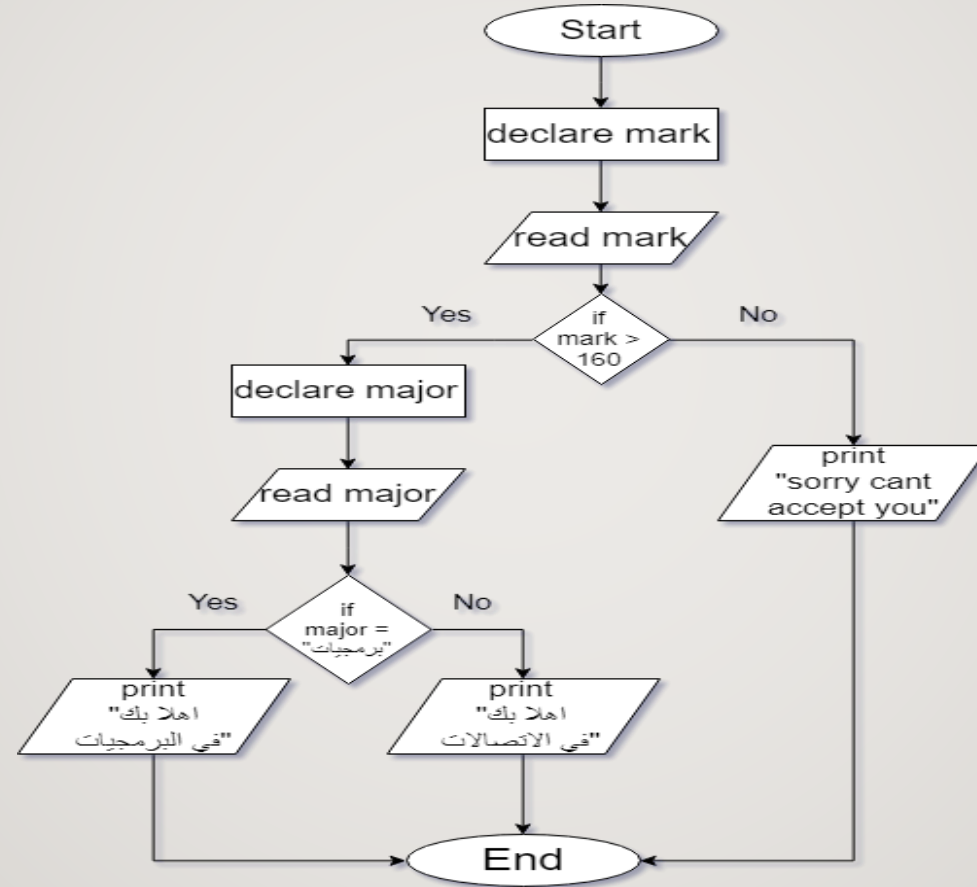


9 EXAMPLE 3: FIX THE BULB



10 EXAMPLE 4

REGISTER IN YPU

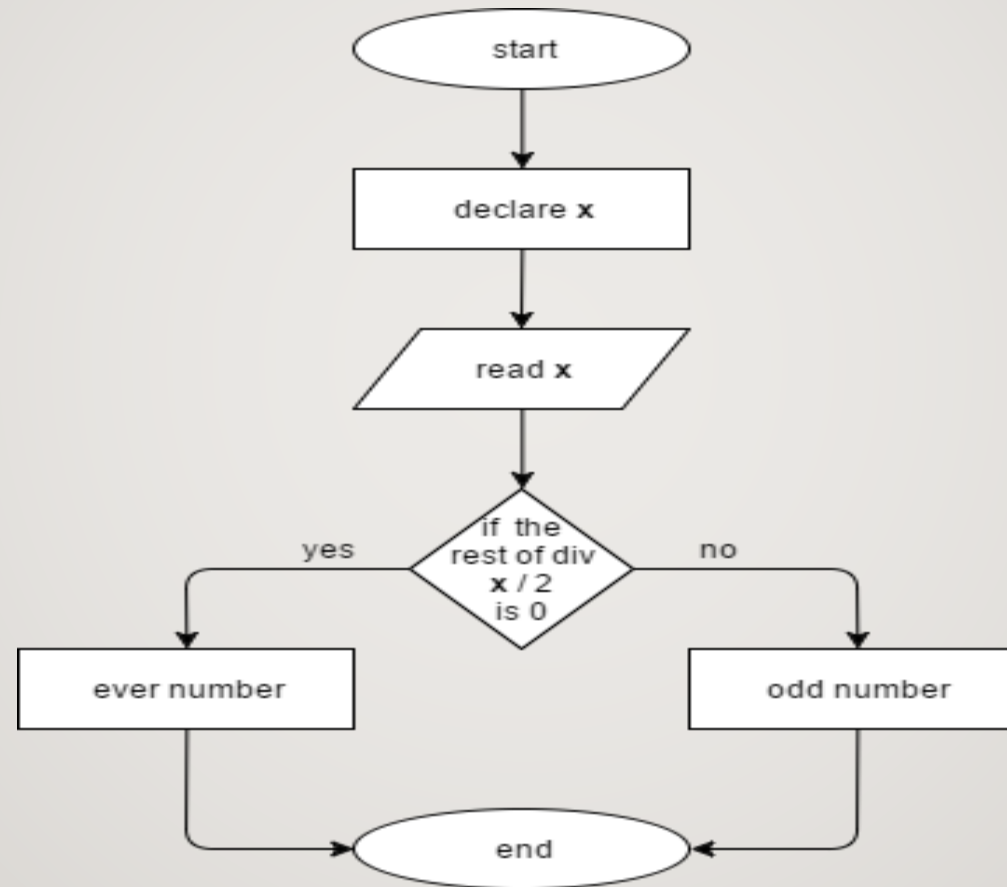




HOMEWORK

Draw a flowchart to figure out if a given number is even or odd

I2 HOMEWORK SOLUTION



THE END
