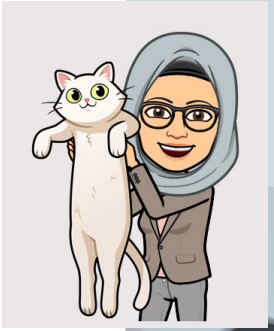
Meeting #1 Bahasa Inggris 2
Unit 1: Programming



By
Atiqah Nurul Asri

Topics:

1. Stages in Programming
2. Flowcharting

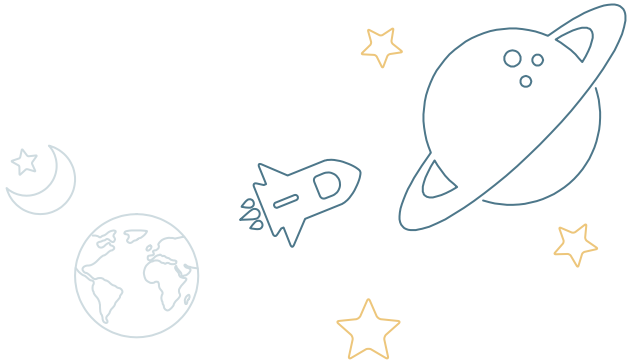
Material:

Unit 1 Module English for Informatics 2 (page 1-8)

Learning Outcomes:

By the end of the lesson, the students are expected to be able to use appropriate English to:

- **identify and explain steps in programming.**
- **identify symbols used in making a flowchart and their functions.**
- **interpret a flowchart.**
- **draw a flowchart and explain it.**



Topic 1: Stages in Programming

What are their differences?

program

programming

programmer

Exercise 1:

```
#include <stdio.h>
main ()
{

Printf("good
morning\n");

}
```

Are you familiar with this? What Programming Language is it? What does the codes mean?

Exercise 3 and 4: Stages in Programming (p. 3)

Arrange these steps into a good order.

1. Write instructions in a programming language
2. Prepare documentation
3. Understand the problem and plan a solution
4. Take a flowchart of the program
5. Compile the program (to turn it into machine code)
6. Test and debug the program

Listen to the Audio File to Check Your Answer

Audio:

Listen to the Audio File to do exercise 2 (page 2)

Audio:

Exercise 2: Match the words 1-5 with the definition (a-e).

1. flowchart	a. program instructions written in a particular computer language
2. source code	b. the techniques of detecting and correcting errors which may occur in programs
3. compiler	c. a diagram representing the successful logical steps of the program.
4. machine code	d. a special program which converts the source program into machine code-the only language understood by the processor.
5. debugging	e. the basic instructions understood by computers, consisting of 1s and 0s (binary code).

Do exercise 5 (page 3)

Exercise 5: Fill the missing words to complete the text. Use the words in the box.

errors program compiled debugging flowchart documentation language

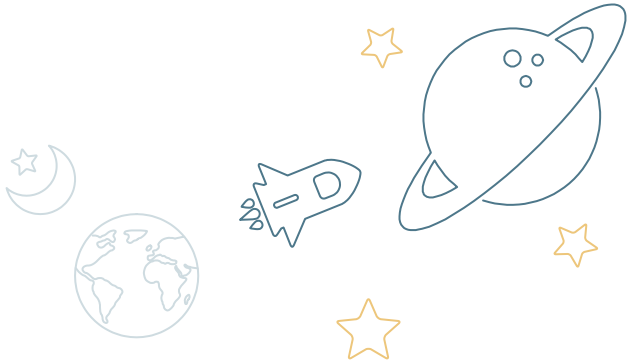
Steps in Programming

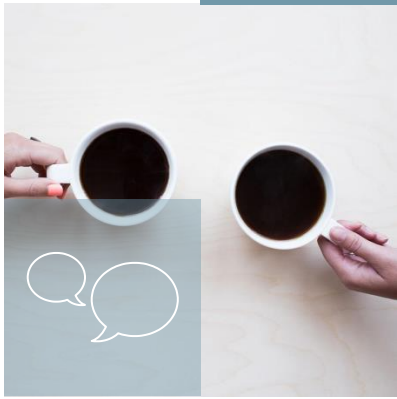
To write a (1) _____ software engineers usually follow these steps. First, they try to understand the problem and define the purpose of the program. Next, they design a step-by-step plan of instructions. This usually takes the form of a (2) _____, a diagram that uses standardized symbols showing the logical relationship between the various parts of the program. These logical steps are then translated into instructions written in a high-level computer (3) _____ (PASCAL, COBOL, C++, etc.). These computer instructions are called the 'source code'. The program is then (4) _____, a process that converts the source code into machine code (binary code), the language that computers understand.

Testing program are then run to detect (5) _____ in the program. Errors are known as 'bugs', and the process of correcting these errors is called (6) _____. Engineers must find the origin of each error, then write the correct instruction, compile the program again, and conduct another series of tests. Debugging continues until the program runs smoothly.

Finally, software developers write detailed (7) _____ for the users. Manuals tell us how to use programs like word processors, databases, or web browsers.

(Taken from Infotech English for Computer Users Workbook, pp.50)





Topic 2: Flowcharting

Flowcharting

What is a flowchart?

Do you know the symbols used in making a flowchart?

What are they? What are their functions?

Do exercise 7 (page 4)

1.2. Flowcharting

Exercise 7: Programmers sometimes use flowchart when they are planning a program. These following symbols are used in making flowchart. Identify each and its function.

No.	Symbols	Names	Functions
1.			
2.			
3.			
4.			
5.			
6.			
7.			

Read and Do Exercise 8 (page 5)

Exercise 8: Read this text carefully and then do the exercises.

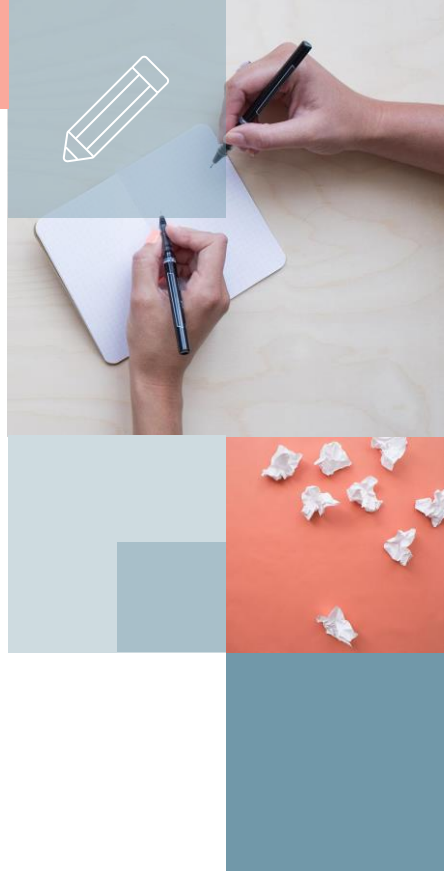
So far, we have dealt mainly with computers, but now it is imperative that we find out how a program is written. In all activities involving computers, it is necessary that the programmer is aware of what the machine is doing and what a program is supposed to do. As previously mentioned, flowcharting, one of the steps in programming, indicates the logical path the computer will follow in executing a program; it is a drawing very much like a road map. Flowcharting is not restricted to the preparation of programs in a particular language and should be done for each major problem before the writing of the program is attempted. If the finished program does not run as it should, the errors are more easily detected on the flowchart than in the maze of words, characters, and numbers that make up the computer program. In order to develop a flowchart successfully, a programmer should be aware of the sequence of steps needed to obtain a correct solution to a problem.

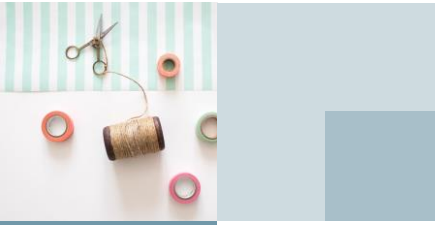
There are two ways of making a flowchart; the freehand version and the neater, more readable version. In the former version, the graphic outlines are simply jotted down as the steps of the program are worked out. This is quite satisfactory if the flowchart is not intended to be kept as a permanent record. However, if a permanent, neater and more readable

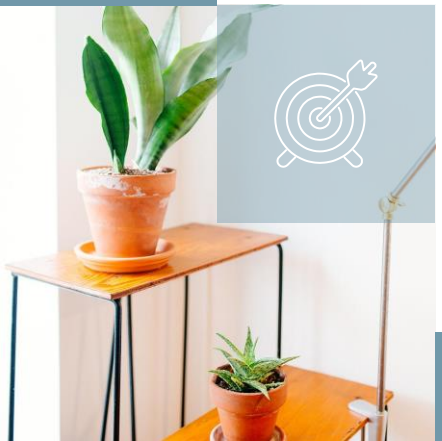
Assignment

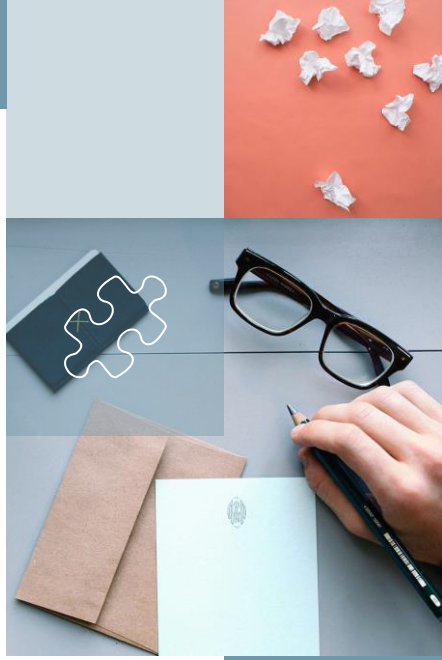
At home:

1. Do exercise 9 (page 8)
2. Do exercise 10 (**next week: prepare for individual presentation**): Create a flowchart about one of the activities (you can create an activity by yourself) using visio, ms office, etc. Present it next week. Please be logical.









"Once you replace negative thoughts with positive ones, you'll start having positive results."

Willie Nelson
Musician