

Name	Jamael Jarez
ID	7832
Department	Be (civil)
To	Engr. Syed Ashraf Ali
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\* Q. NO #1 :-

\* Part A :-

\* Ans :-

Algorithms and flowcharts:-

\* Peseudo codes:-

\* Input the width (W) and length (L) of a rectangle.  
 \* Calculate the area (A) by multiplying L with W.  
 Print A.

\* Algorithms and Flowcharts:-

\* Algorithm:

\* Step 1:-

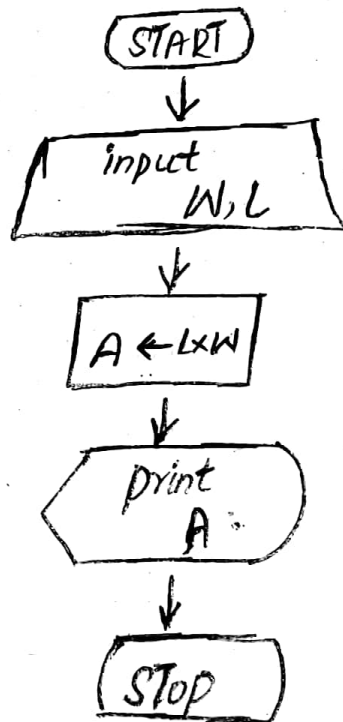
input W, L

\* Step 2:-

$A \leftarrow L \times W$

\* Step 3:-

Print A



\* Part B:-

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(2)

\* Ans:-

There are three types of error occur during execution of programming.

(1) Syntax Errors-

These are error where the compiler finds something wrong with your program and can't even try to execute it.

\* Example:-

you may have incorrect punctuation, or may be trying to use a variable that hasn't been declared.

(2) Runtime errors-

if there are no syntax errors, Java may detect an error while your program is running. you will get an error message telling you the kind of error occurred and the stack trace that tells not only where the error occurred, but also what other method or methods you were in.

(3) Logic Errors-

A logic error, or bug, is when your program compiles and runs, but does the wrong thing. The Java system, of course has no idea what your program is supposed to do, so it provides no additional information to help you find the error.



\* Q.NO#2

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(3)

\* Part A:-

\* Ans:-

We used <iostream.h>:-

\* This is the name of the library definition file for all input output streams. your programme will almost certainly want to send stuff to the screen and read things from the keyboard.

\* iostream.h is the name of the file in which has code to do that work for you.

<Conio.h>:-

\* Conio.h is a C header file used mostly by MS-DOS compiler to provide console input/output. It is not part of the C standard library or ISO.

\* This header declares several useful library functions for performing console input and output from a programme.

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(4)

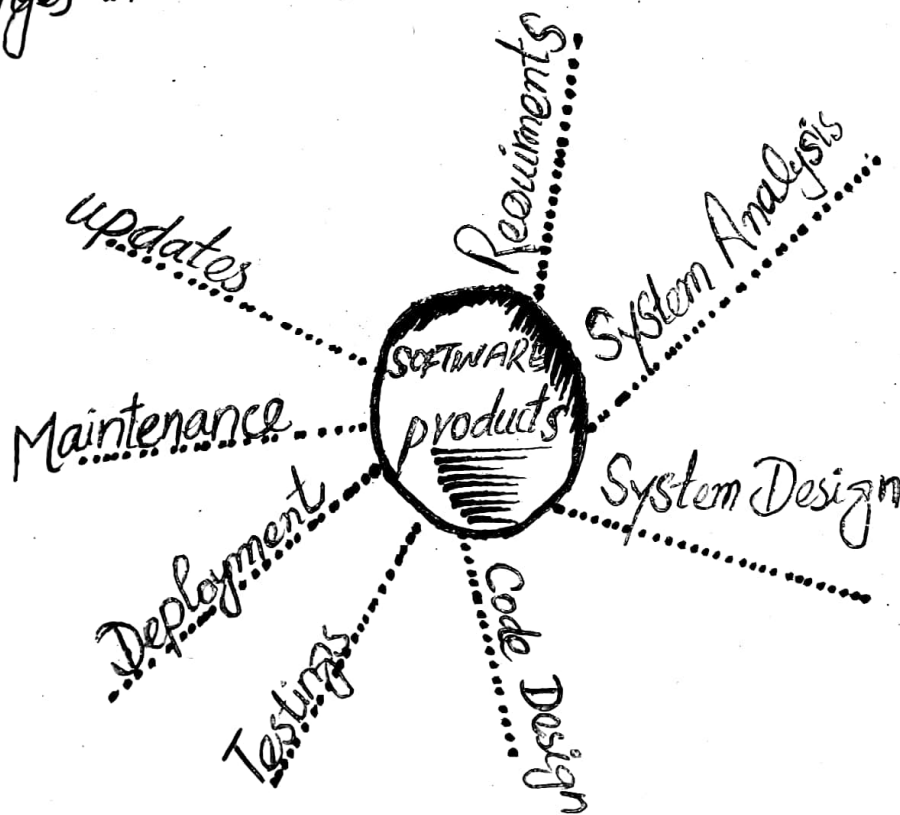
\* Q. NO #2

\* Part B:-

\* Ans:-

\* Maintain And Update the programs:-

Maintenance and update are the modification of a software products after delivery to correct faults, to improve performance or other attributes or to adapt the product to a modified environment. It deals with updating the software according to changes in user requirements.





## 2. Bug and debug?

### BUG:

Bugs are errors in code of your program that make your program function improperly.

⇒ The word Bug . originated in engineering

⇒ A bug is not only the kind of problem a program can have. A program can run bug-free and still difficult to use or fail in some major objective.

### Debug:

It is the process of detecting and removing of existing and potential errors in a software code that can cause it to behave crash.

→ Debugging is used to find and resolve bugs & defects.

## (b) Syntax and Logical error:

✓ A syntax error is an error in the source code of a program. Since programs of computers must follow strict syntax to compile correctly, any aspects of the code that do not conform to the syntax programming language will produce syntax error.

→ It is small grammatical mistakes, some + times limited to a single character.

e.g. missing of semicolon or bracket at the end of a line.

⇒ While logical error is a bug or mistake in a program's source code that results in incorrect behaviour. It caused many

types of different program error.  
e.g. multiply two numbers instead of adding or subtracting it.

## C Assembler and Compiler:

These are language Processors.

→ Assembler is a program that converts assembly level language (low level language) into machine level language.

→ Compiler compiles entire C source code into machine code and is primarily used for programs that transfer or translate source code from a high-level language to a machine level.  
e.g. C, C++, C# etc.

## d) System and Application Software:

System software is used for operating computer hardware. where as Application software is used by user to perform specific task.

→ System software is installed when operating system is installed in a computer.



→ System software contain  
(i) File Mngmt tool (ii) operating system  
(iii) utilities (iv) Assembler  
(v) debugger (vi) Compilers.

→ Application software includes  
(i) word processing (ii) Spread sheets.  
(iii) Graphics (iv) Games (v) Databases.  
(vi) Communications.

## ⑨ Low Level language.

→ Low level language are far from human beings

→ It provides facilities to write programs at hardware level

→ Deep knowledge of hardware is require to write program.

Normally used to write hardware

## High level language

It is Near to human beings

→ It do not provide much facilities at hardware level.

→ Deep knowledge is not required.

→ Normally used to write application program