COBOL: Common Buisness Oriented Language
Divisions - IDENTIFICATION, ENVIRONMENT, DATA & PROCEDURE
Working:

- computer only understand binary language
- COBAL code is converted into binary language using a Compiler
- Compiler checks the syntax and convert into Binary language
- Compiles creates an output file which is known as Load module

Importance:

1. first widely used high level programming language
2. user friendly, can be coded in simple english language
3. used as self - documenting language
4. can handle huge date processing
5. highly Compatible and easier debugging

Features:

1. Standard Language - can be compiled and run on machines like IBM AS /400, personal computers
2. Business Oriented - designed for business oriented applications related to financial domain, defense domain etc.
3. Robust Language - has numerous testing and debugging tools available for almost all computer platforms
4. Structured Language - has logic control structures, makes it easier to read and modify, different divisions so it's easy to debug

Structures:
A COBOL program structure consists of divisions as shown

Program - > Divisions - > Sections - > Paragraphs - > Sentences - > Statements - > Characters

Sections - collection of paragraphs, logical subdivision of program logic
Paragraphs - Subdivision of a section or division

- either user defined or pre-defined name followed by period
- Consists of zero or more sentences / entries

Sentences - combination of one or more statements

- appear only in procedure division
- must end with a period

Statements - meaningful COBOL statements that perform some processing .
Characters - the lowest in the heirarchy and cannot be divisible
example code:

```
PROCEDURE DIVISION,
A0000-FIRST-PARA SECTION,
FIRST -PARAGRAPH,
ACCEPT WS-ID
MOVE ' 10 ' TO WS-ID
DISPLAY WS-ID
.
```

Divisions:
COBOL has four divisions

1. Identification divisions - only mandatory division, used to identify the program. PROGRAM -ID - only mandatory paragraph, specifies the program name that can consists 1 to 30 characters.

2. Environment Divisions - used to specify input and output files to the program.

    Consists of two sections :-
    Configuration Section - provides information about the system on which the program is written and executed.
    It consists of two paragraphs :-
    Source computer - System used to compile the program
    Object computer - System used to execute the program

    Input-Output section - provides information about files to be used.
    It consists of two paragraphs :-
    File Control - Provides information of external data sets used in the program
    I-O Control - provides information of file used in the program

3. Data division - used to define the variables

    consists of four sections :-
    File Section - defines record structure of the file
    Working - Storage section - declare temporary variables and file structures

Local-Storage section - allocates variables every time a program starts
Linkage Section - to describe the data names that are received from an external program

4 . Procedure Division - used to include the logic of the program

- Consists of executable statements using Variable defined
- paragraph and sections names are user - defined
- must be atleast one statement
    - STOP RUN - last statement to end the execution in calling programs
    - EXIT PROGRAM - last statement to end the execution in called programs