Technology Stacks

MEAN

MERN

MEVN

M- MongoDB

E- Express.js

A-Angular

R- React.js

V – Vue.js

N- Node.js

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**Java Fullstack**

Frontend – Angular, React,Vue

Backend/middleware – Java

Database – Mysql , MongoDB

Programming language

* Machine level language – 0110 - microprocessor
* Assembly level language – ADD
* High level programming language - +

RAM – microprocessor - Machine level language

ALL – Assembler - MLL

HLL – compiler/Interpretor – MLL

**A Compiler takes a program as a whole.** **An Interpreter takes single lines of a code**.

Java

* High level programming language
* James gosling and team at Sun Microsystems
* 1995 – official realease
* Oracle corporation acquried- 2010

History of HLL

BCPL

* Basic combined programming language
* Martin Richards – 1962
* Occupy more memory

B

* Ken Thompson
* 1965
* Occupy less memory
* Unstructured

C

* Dennies Ritchie
* 1972
* Occupy less memory
* Structured

C++

* Stroustrup
* 1982
* Occupy less memory
* Object oriented
* Non portable

Java

* James gosling and team at Sun micro systems
* Occupy less memory
* Object oriented
* Portable

**Features of Java**

* Platform independent/portable/WORA
* Object oriented programming language

Abstraction

Encapsulation

Inheritance

Polymorphism

* WORA – Write Once Run Anywhere
* Multi threading

**Architecture -JAVA**

JDK – Java Development kit

JDK = JRE(Java Runtime environment) + Java compiler

JRE = JVM(Java Virtual Machine) + Java class libraries+ class loader + Bytecode verifier

JVM = JIT Compiler + Java interpretor + Runtime system

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Program.java(HLL) – javac (compiler) – Bytecode/ Intermidiate level code(Program.class)

Program.class – JVM (JIT) – MLL – operating system

There are 4 editions of Java

1.Java SE (Java Standard Edition)

2.Java EE (Java Enterprise Edition)

3.Java ME (Java Micro Edition)

4.Java FX