**Computer** – Hardware + Operating System

* Devise to solve real-time problems based on instructions given by the user
* Input -> Process -> Output
* Ability to store, access and find the information based on user input
* Electronic device which knows only 0’s and 1’s

CALCULATOR

Phone v/s Smart Phone

Internet/ Ease of access

**Software/Application**

* Dedicated functionality
* Set of programs
* Has its own file extension
* Is OS-dependent/platform dependent

Java – programming language or application? – BOTH

Java – application -> platform dependent

Java – programming language -> platform independent

**Software/Application – It is the interface between User and OS.**

**OS – It is the interface between Application/Software and Hardware**

**Language**

* medium to communicate
* Communication tool
* Expression of idea/thoughts

Set of rules/instructions

Programming Languages – set of rules/instructions

HTML, Java, C, C++, Python, PHP, SQL, CSS

C/C++ -> .obj -> .exe

Java - .class -----------------------secure

**Applications/Software** **Types**–

1. Web application – many users
2. Stand-alone application – one user
3. Smart phone application
4. Smart watch application

**Internet/Network – Interconnection of computers or other devices**

Network ----------🡪 Intranet (private) , Internet(public)

Server – is computer with high hardware configuration

Unix/Linux based servers are usually preferred.

RAM - 2 TB

Rack Servers – stack of servers

Bangalore ---------------------------------------------------------------- Mumbai

Windows -Fortuner – Cost, Mileage

Unix/Linux - Audi – Speed, Comfort, Performance, **Reliability**, Safety, **Stability**

KB,MB,GB,TB,PB(PetaBytes)

**Multi-tier Architecture (3-Tier Architecture)**

**2 options – browser or mob app**

2-Tier (Gmail Server)

Install gmail app

Web app (CORE) <– Smart Phone, Smart Watch

Roles –

* Web Designer
* **Developer**
* Tester
* Quality Engineer
* Site Reliability Engineer
* Support Engineer (Maintainance) – 24/7
* Digital Marketing Consultant
* Sales engineer
* Pre-sales consultant
* Business Analyst
* Business Development Associate
* Project Manager
* Tech lead
* Program Manager
* People Manager