

INTRODUCTION TO PROGRAMMING

By Vineet Nayak S
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“The Expert in anything was once a Beginner :-D.”

A BRIEF INTRO ABOUT ME...



I am Vineet Nayak S...
Microsoft Learn Student Ambassador,
SEO Specialist at Edvicer,
Regional Head GirlScript Karnataka,
Student Mentor at Yay!-Celebrating Education

AGENDA

- What is Programming?
- Necessity of Programming & why learn it?
- How to kick start a career in Programming?
- Which Programming Language to Begin with?
- Few Magical demonstration
- Data Structures
- Roles of Communities
- Statistics and Insights on Programming



WHAT IS
PROGRAMMING...?

PROGRAMMING...?



```
else if (i==2)
{
    var atpos=inputs[i].indexOf("@");
    var dotpos=inputs[i].lastIndexOf(".");
    if (atpos<1 || dotpos<atpos+2 || dotpos==inputs.length-1 ||
        document.getElementById("errmsg1").innerHTML=="")
    else
        document.getElementById(div).innerHTML += " ";
```

Programming is the way of communicating with your computer to perform certain tasks, for example: Adding two 2 numbers

Let's see another practical example too :-D

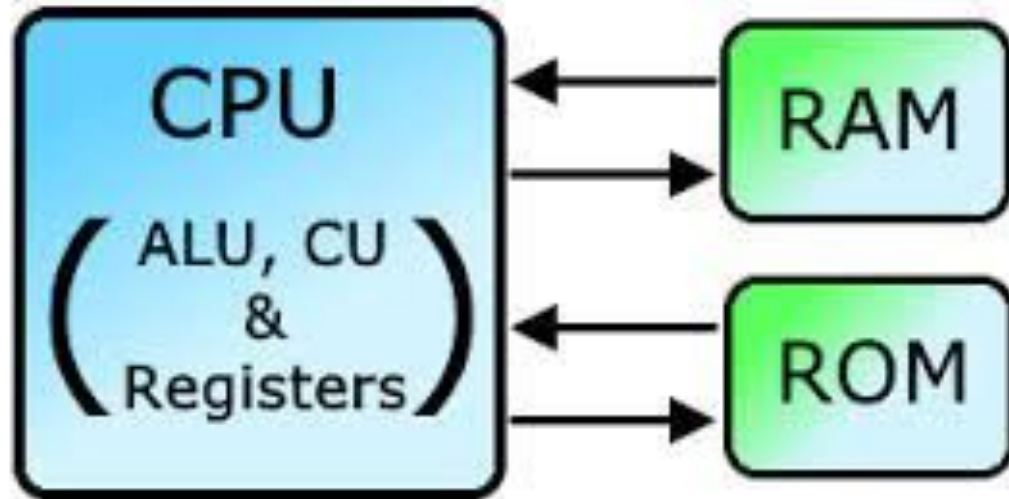
FOR EXAMPLE...



Let's use apply some filter to the above pic...

Yes... It Involves programming too!

EXECUTION...



SOFTWARE...

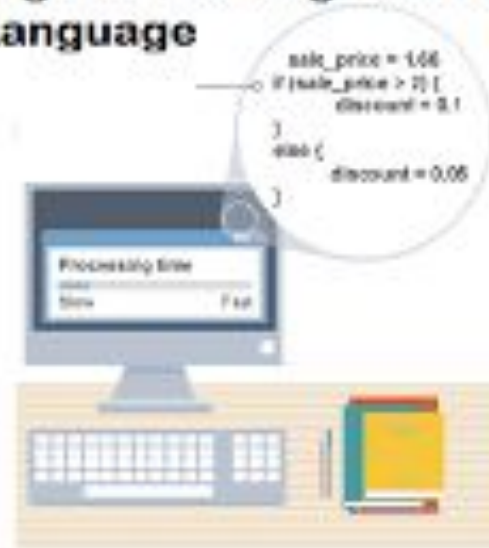


FEW ANALOGIES...

Low Level Programming Language



High Level Programming Language



HISTORY OF PROGRAMMING...

History of Programming Languages

- **1940s: Von Neumann**
- **1950s: First Programming Language**
- **1960s: Basic Programming (B Language)**
- **1970s: C Language(Simplicity, Abstraction,Study)**
by Dennis Ritchie
- **1975s: C++ Language(object Oriented, Logic Programming)**
by Benjamin Strawtroup
- **1980s:GUI Programming**
- **1990s: Visual Basic by Microsoft and Java by James Gosling**
at Sun Microsystems
- **1992: Platform Independent Language(Java)**
- **1999: Dot Net Platform By Microsoft**
- **2000s: Scripting, Web Programming Like PHP,Asp.net,Javascript,VBScript**
- **2010s: Parallel Computing, Concurrency**



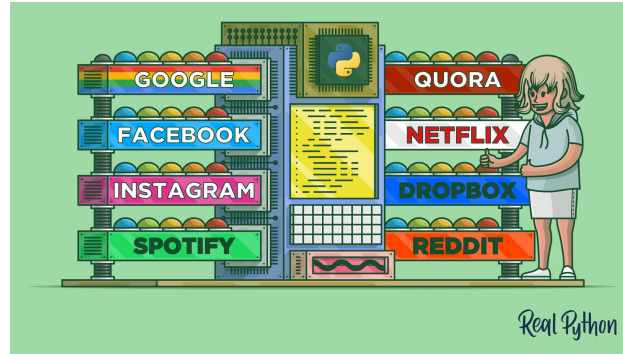
NECESSITY OF
PROGRAMMING...?

NECESSITY OF PROGRAMMING...?



- Most of the things we see today has a program running in the background.
- Usage of programming globally has made it a gold mine for the one interested to kick start their career.
- Programming is tool if used in right way can be used to automate the boring activities.

COMPANIES THAT USE PROGRAMMING...?

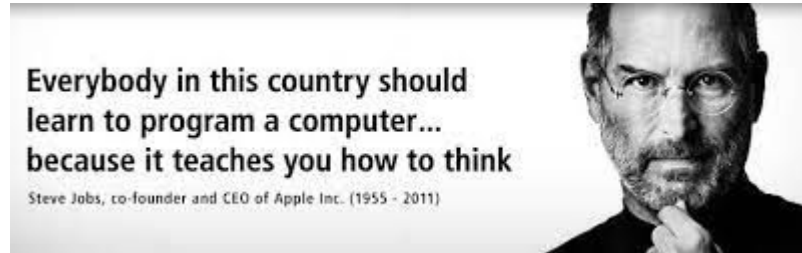


- Starting from young budding startups like Edvicer to the big tech giants like Google, Facebook etc, use programming.
- Almost all the industries are getting automated and are adopting programming to get the optimized results.



WHY LEARN
PROGRAMMING...?

WHY LEARN PROGRAMMING...?



- When you start learning to program, you develop the habit of working your way out in a very structured format.
- Programming helps you to start thinking logically, and this gives rise to more creative solutions you've ever given.

WHAT IS THE BEST AGE TO LEARN PROGRAMMING...?



- There are no age restrictions to learn programming.
- Starting from 7 year old kids to 90+ year young grannie can learn to code.
- All that is required is “CURIOSITY”



HOW TO KICK START
PROGRAMMING CAREER...?

HERE IS HOW...



- Go 100% all-in.
- Start a side project.
- Go the extra mile.
- Get your code reviewed.
- Never pretend to know things that you don't.
- Pair program with someone more experienced than you.

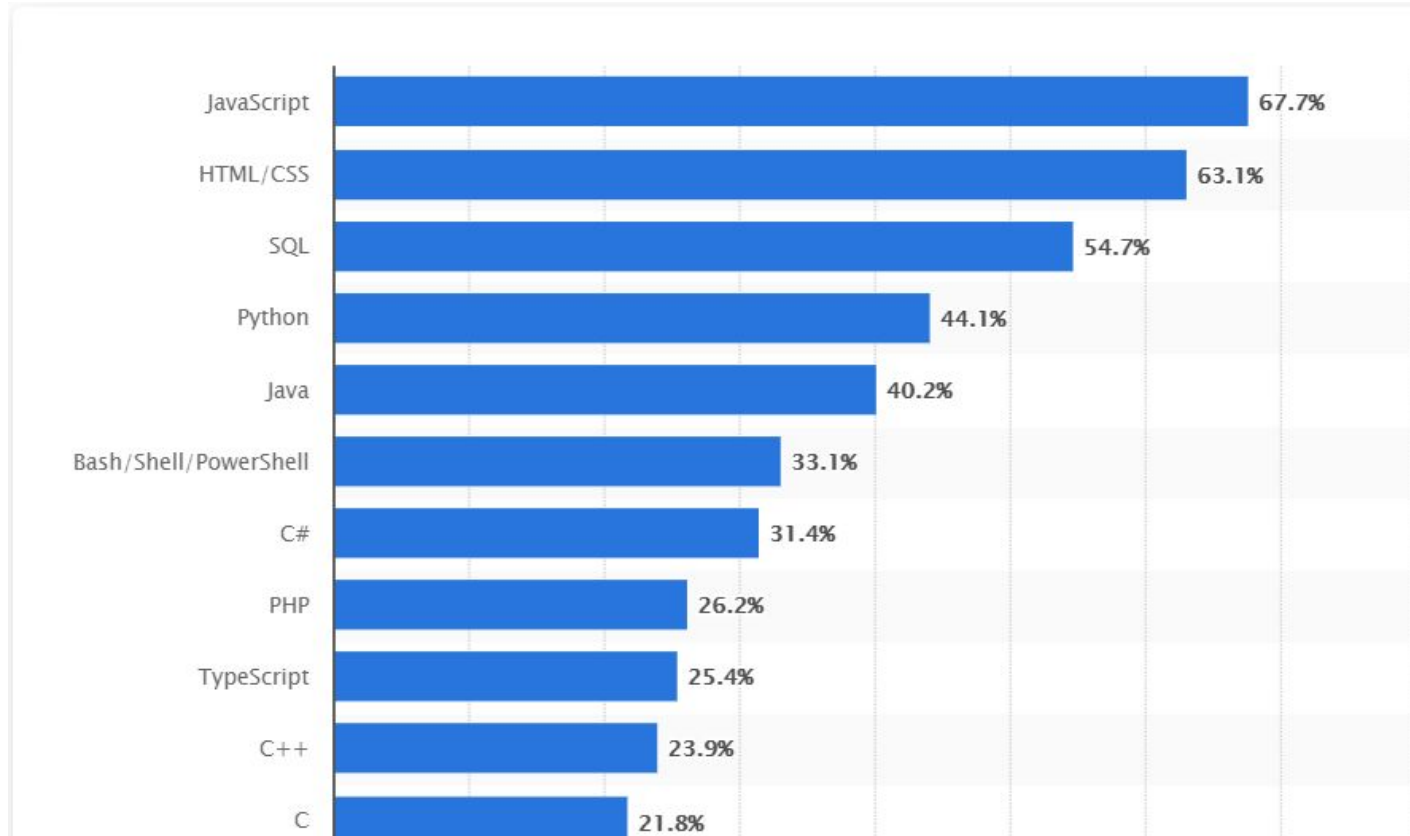


WHICH PROGRAMMING
LANGUAGE TO BEGIN WITH?

PROGRAMMING LANGUAGES AVAILABLE...



MOST POPULARLY USED PROGRAMMING LANGUAGES...



Easiest Programming Languages to Learn

17 Easy Coding Languages



HTML may not technically be a coding language, but it's still important—and easy!



C and C++ are perfect languages for building high-performance systems.



C# is an especially important coding language for game development.



The goal with Go was explicit: create one of the easiest programming languages to learn.



ERLANG

You can only use Erlang in functional programming.



CSS makes HTML pretty.



There are tons of online resources to learn Java, one of the easiest coding languages.



Rust is a great coding language when security is a top priority.



elixir

Elixir is an extension of Erlang.



JJavaScript makes HTML function.



PHP is one of the easiest coding languages...if you know HTML.



Swift

Swift is the preferred coding language for Apple operating systems.



Scala

Scala is commonly used for implementing back-end functionality.



python

Python is a highly readable general-purpose coding language.



Ruby

One reason Ruby is an easy programming language is its supportive and friendly community.



R is a coding language that is primarily used for data science.



Clojure

Clojure is notable for adding immutable data structures to Lisp.



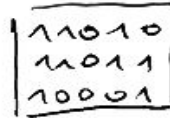
INTERPRETER VS COMPILER PROGRAMMING LANGUAGES

Source code:
hello.c



→ COMPILER →

Machine code:



Program (also
called binary,
executable ...)

run the
program

result



Source code:
hello.py



→ INTERPRETER → result



WHAT MATTERS IN PROGRAMMING...?





TIME FOR SOME MAGIC...?

MY PERSONAL ASSISTANT...



A working of a simple assistant I created to:

- 1. Get the Information from Wikipedia**
- 2. Search for courses**
- 3. Open any website**

FUN WITH PROGRAMMING...





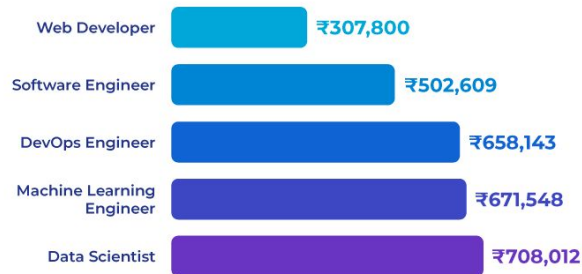
DATA STRUCTURES...?



STATISTICS & INSIGHTS...

SALARY INSIGHTS OF PROGRAMMERS...?

AVERAGE ANNUAL SALARY



Average Application Developer Salary in India

₹501,874

Avg. Salary [Show Hourly Rate](#)

₹49,493
BONUS

₹51,000
COMMISSION

₹15,126
PROFIT SHARING

The average salary for an Application Developer in India is ₹501,874.



DIFFERENT DOMAINS OF PROGRAMMING...



FROM WHERE DO WE START LEARNING...?



- There are plenty of online platforms such as w3schools, geeksforgeeks, etc to start learning and practicing programming.
- Your job of searching courses and learning has been made easier for you by Edvicer.
- Visit <https://www.edvicer.com/> and start learning :-D

THANK YOU :)

Time for Questions :D