

WACOM

✓

Vigyan (11 - 12)

Dr. Shilpi



Biography

- PhD IISc 2008 CSA
- 8 years in Industry
 - Philips Research
 - GM R&D
 - TCS R&D
 - Limberlink
- April 2013 — IITB.

Course I Teach (have taught)

Programming I (Python) ✓

Programming II (Java) ✓

Programming Languages ✓

Fundamentals of Programming (MSc DS) JS.

C++, C — 20.

Prof. Srikanth

Software Testing ✓

Compilers ✓

Programming Analysis for Software Engineering

PG.

Ocaml, Haskell, Scheme, Lisp, Racket,
Shell

Bengali, Hindi, English, Marathi,

Telugu, Kannada, Sanskrit



AFTER COMPLETING GRADING

Research Interests

Software Engineering

QA

Programming Languages

Formal Verification



Software Testing

Education Technology

Bangalore Tech. Summit .

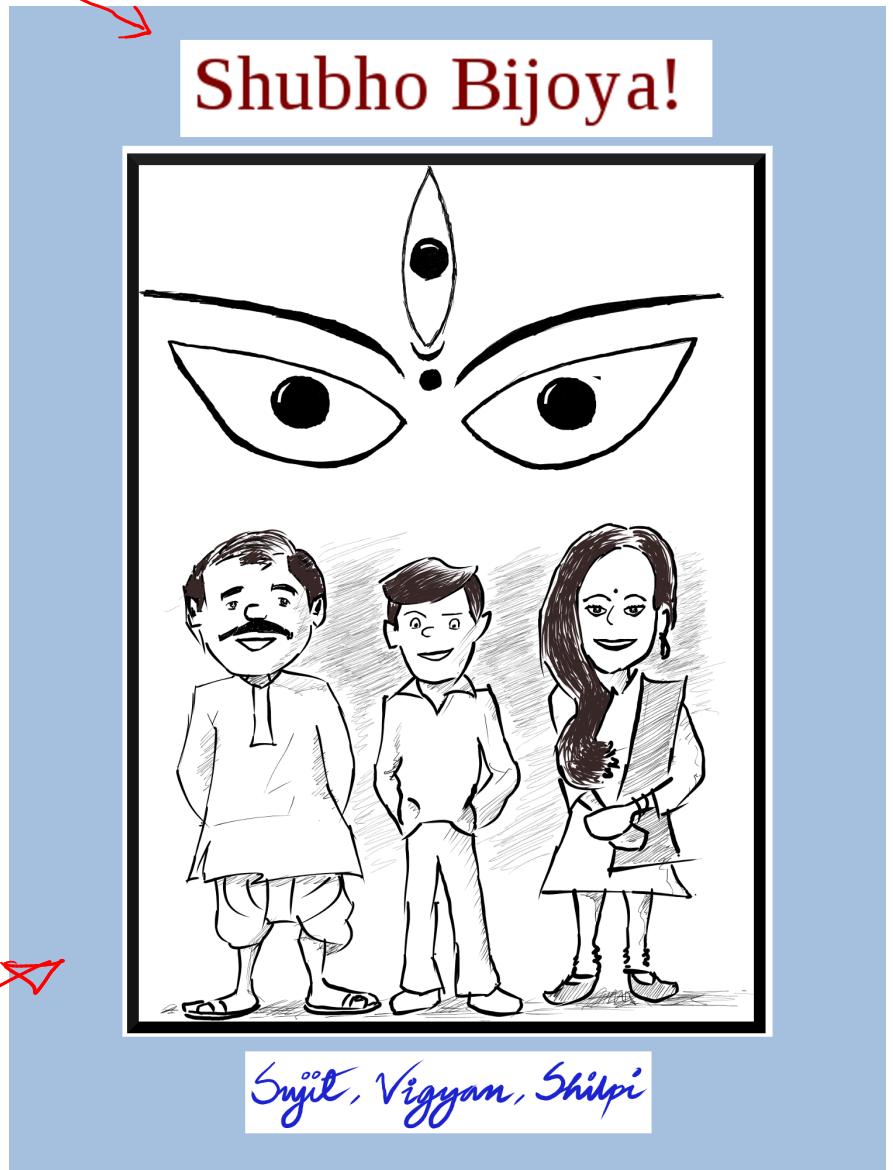
Accessibility



Foundation Day - ♪

Sept. 15.

Blogging



SCHEDULE

THEORY

11 am - 12.30 pm



12.30 - 1.30

Lunch

LAB

1.30 pm - 3.30 pm

Teaching
Assistant

ASSESSMENT (SUMMATIVE)

$\approx 25\%$

MID-TERM

$\approx 30\%$

END- TERM

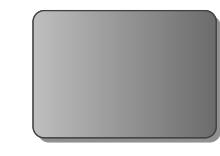
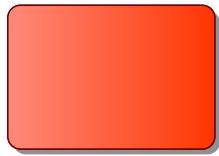
$\approx 25\%$

PROJECT (TEAM)

2-3
←

ASSESSMENTS

$\approx 20\%$



Randomly Chosen:

TEACHING ADMINISTRATORS



ADVAIT (IMT'17)



ESHITA (MT'19)



KESHAV (MT'19)



LUBAINA (MT'19)



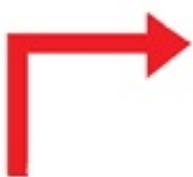
PRATEEKSHA
IMT'17



RAHUL
IMT'17.

TA ROLE - GRADING

GRADING
METHODS



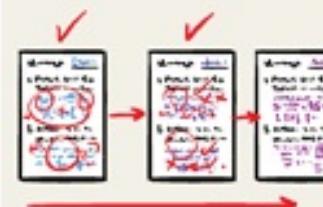
METHOD 1

GRADE ONE PROBLEM
AT A TIME FOR ALL
THE PAPERS.



METHOD 2

GRADE ALL THE
PROBLEMS IN ONE
PAPER BEFORE
MOVING TO THE NEXT.



METHOD 3

START WITH METHOD 1,
DESPAIR OVER HOW
LONG IT TOOK TO GRADE
THE FIRST PROBLEM,
FORGET CONSISTENCY,
SWITCH TO METHOD 2.

one problem
down... 20 more
to go?

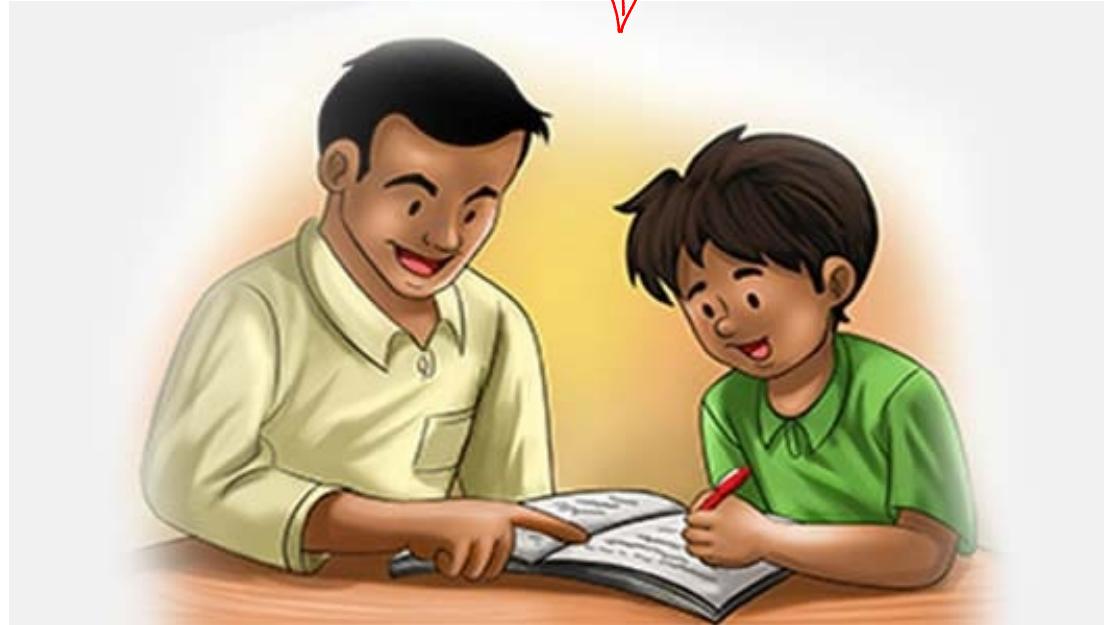


TA ROLE

6

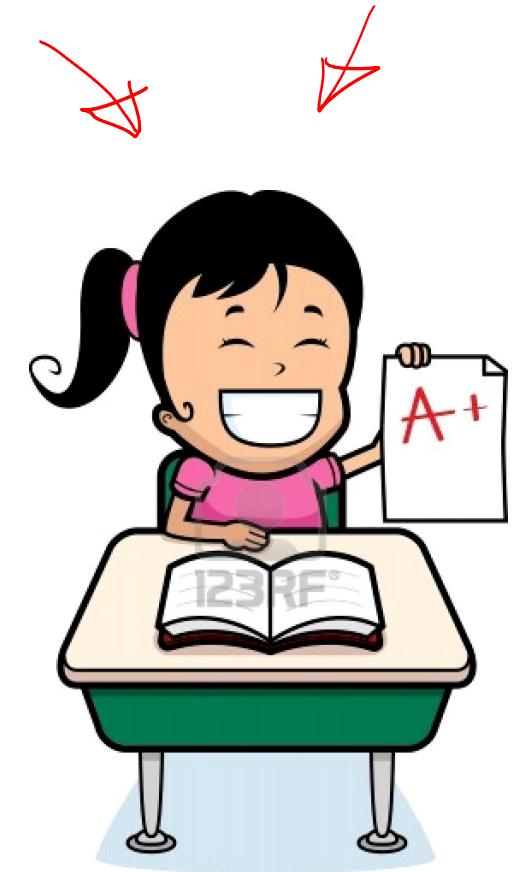
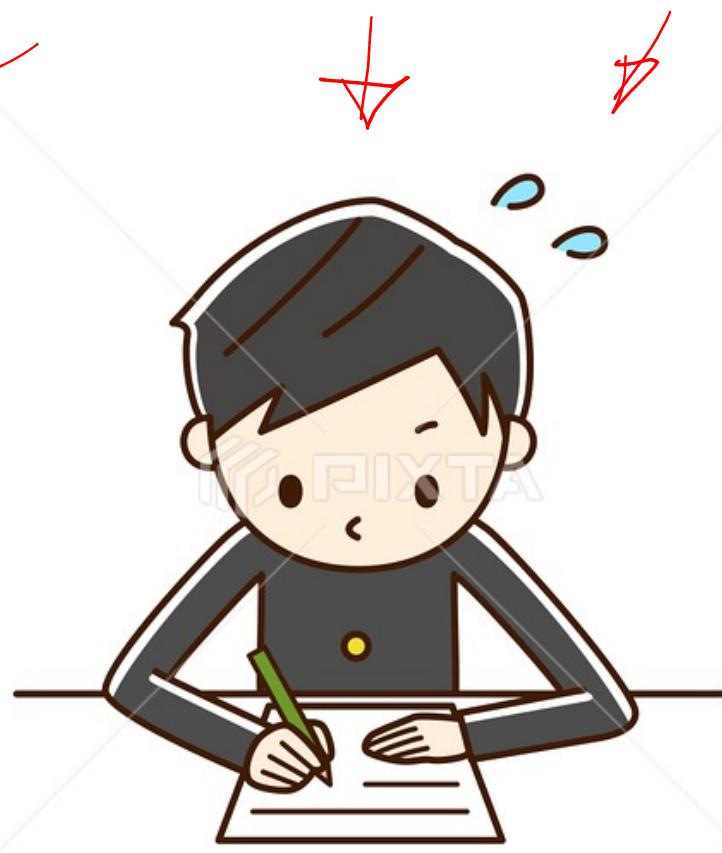
$$\begin{array}{r} \cancel{1}70 \\ \hline 6 \end{array}$$

120.



- COUPLE OF MINUTES WITH EACH STUDENT

ASSESSMENT (FORMATIVE)



SUMMATIVE

STRUGGLING



MANAGING



INDEPENDENT



pixtastock.com - 55398358

EVALUATION

Two types of questions

- Objective
- Programming

Theory

1.3 Jumbled Quiz

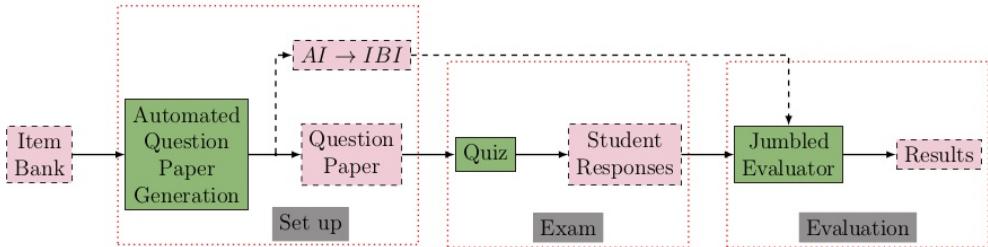


Figure 1.2: Jumbled Quiz Workflow

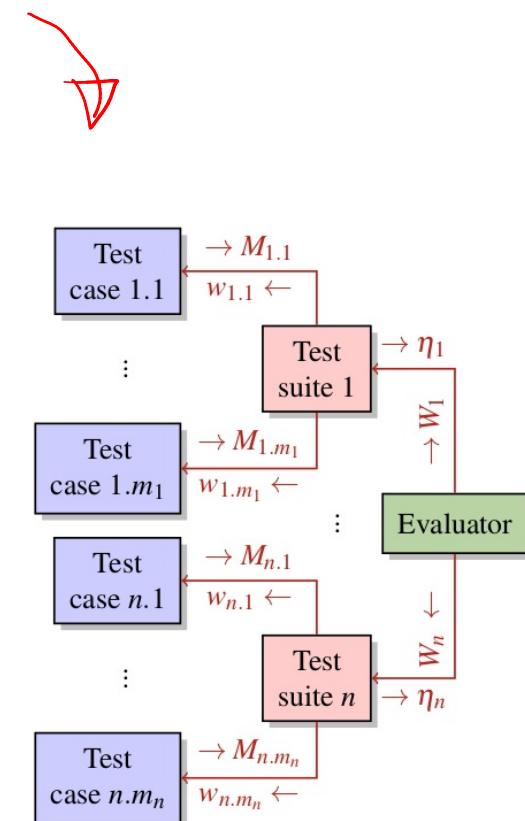
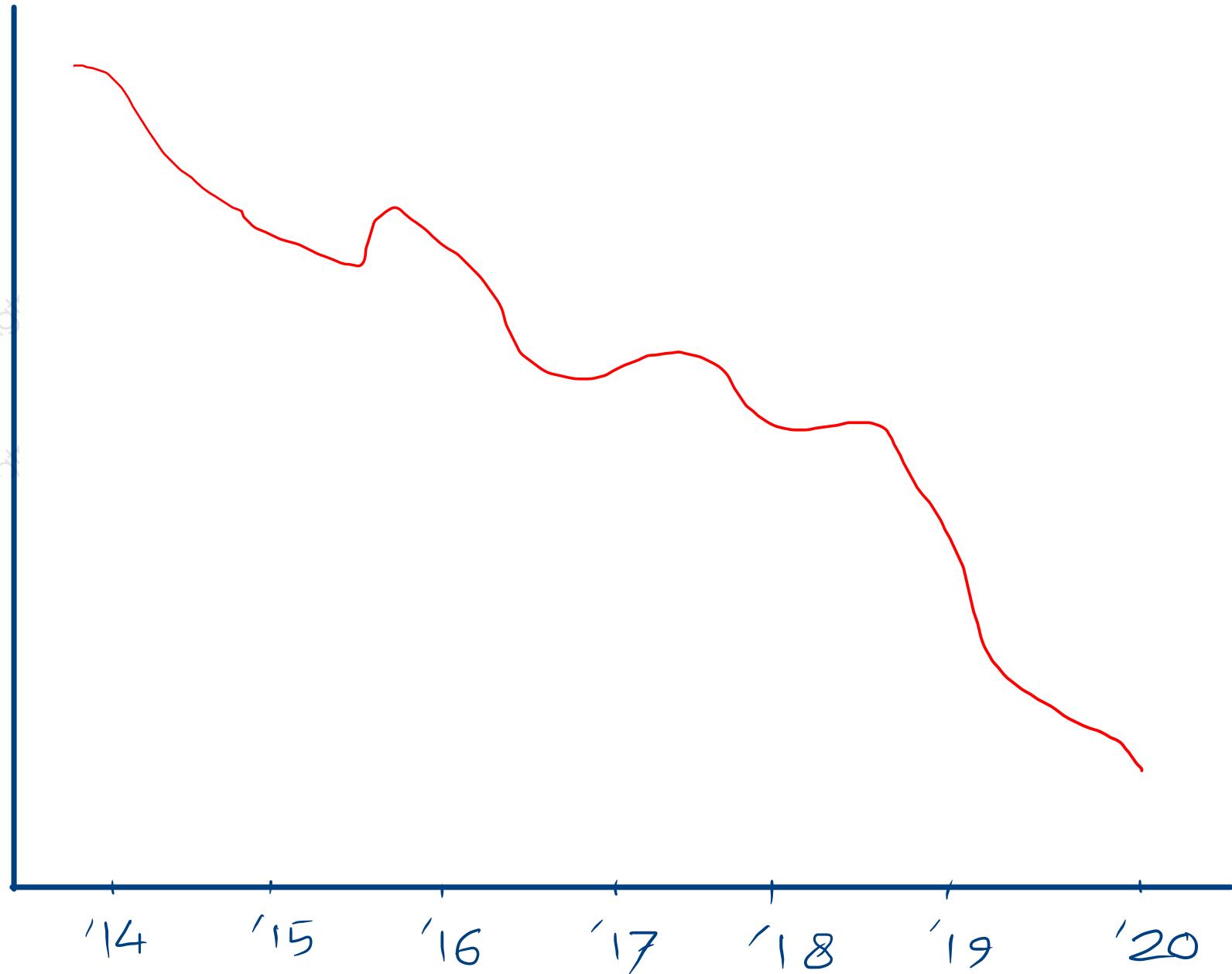


Figure 1: System Architecture





COURSE CONTENT

- Introductory concepts – working environment, comparison with other programming languages
- Basic syntax – expressions, types, statements, variables, etc.
- Control constructs - branches and loops
- Inbuilt containers - tuples, lists, sets, maps
- Functions
- Recursion
- Exception handling
- Introduction to functional programming – lambda expressions, coroutines, decorators, higher order functions
- Introduction to object oriented programming – Inheritance, polymorphism, duck typing

TODAY'S PLAN

- SUJIT. — . 0.5 hr
- TAs
 - Computing Environment 45 min
 - QAs

DO you have prior
✓ programming experience?

Which PL you have used.

- 1) C
- 2) C++

- 3) Java

- 4) Python

- 5) other.

What's the size of the largest
Program that you have
written?

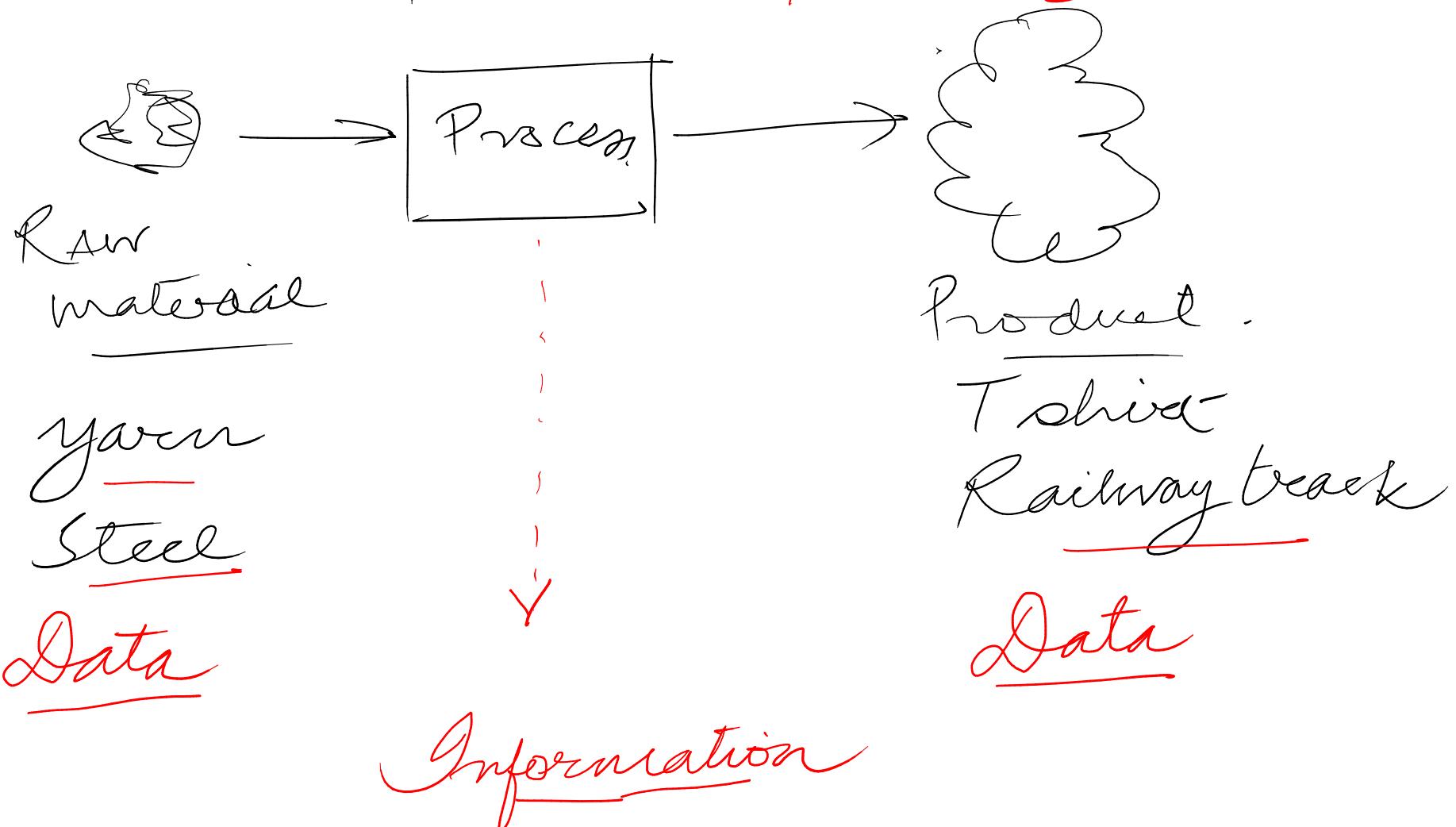
A) 0 - 100 LOC

B) 100 - 1000 LOC

C) 1000 - 10000 LOC

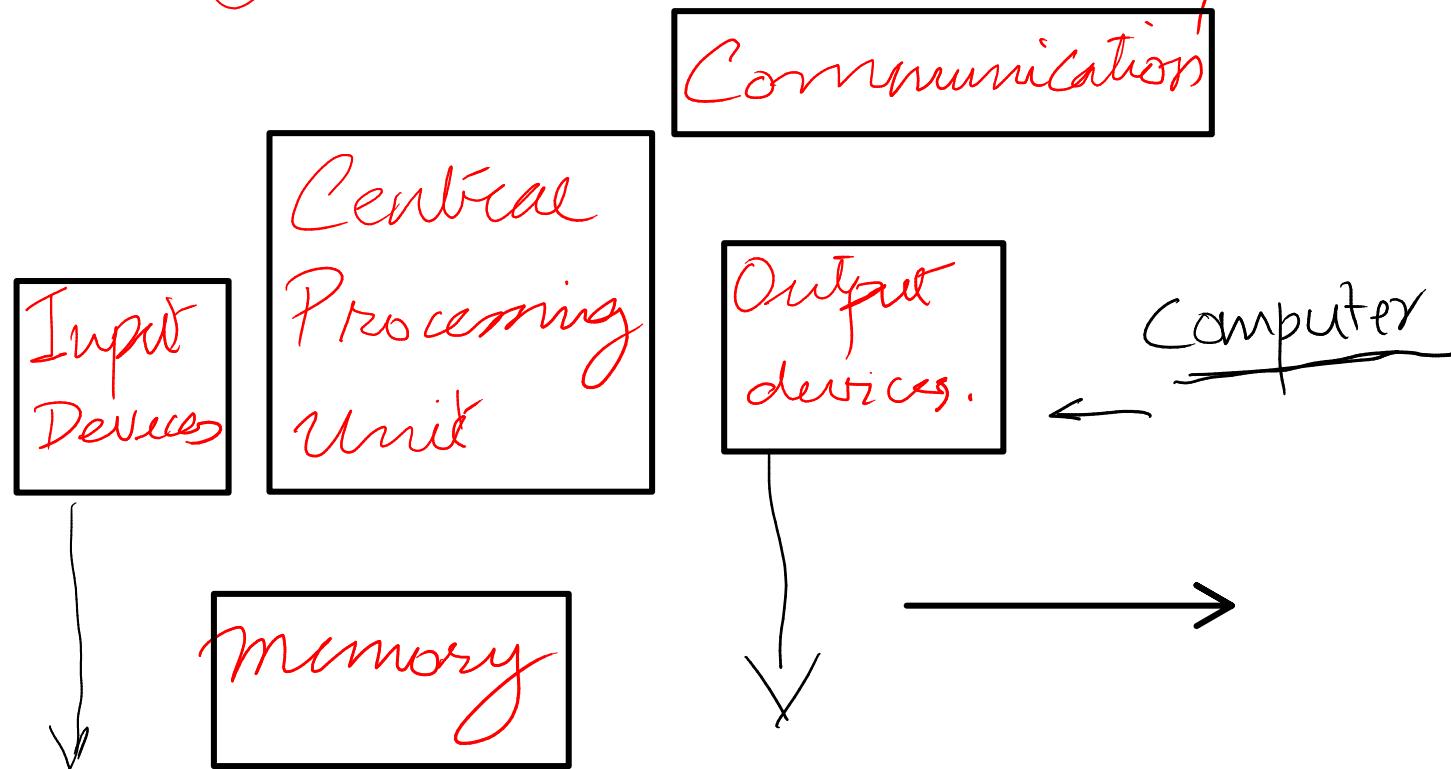
D) 10K - 100K LOC.

COMPUTING - Data processing.



COMPUTER .

A device which computes -



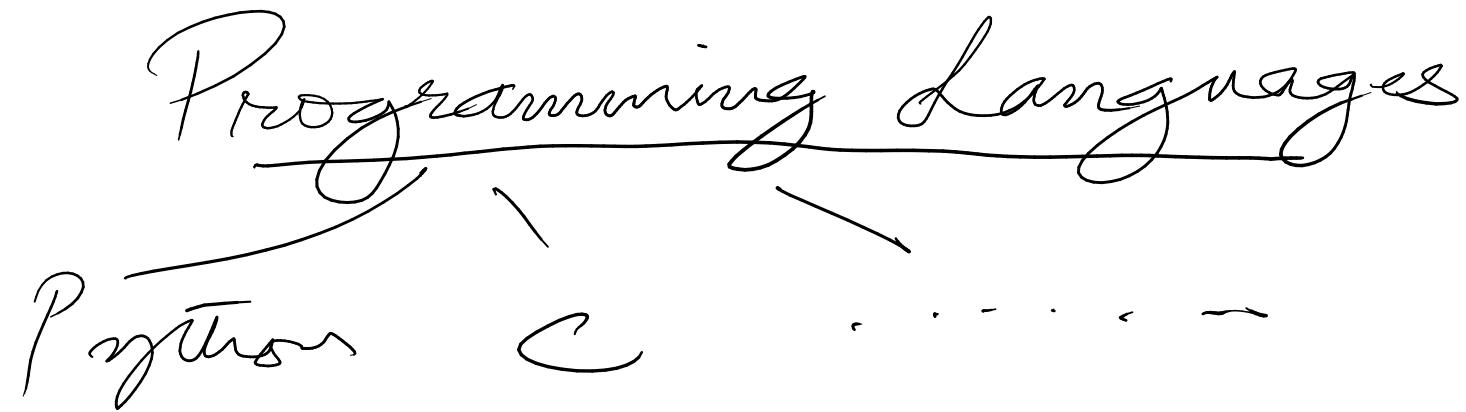
Monitor
Speaker
Printer

Keyboard
mouse
Webcam
Tablet
Mic
Camera



COMPUTER PROGRAMMING

Communicating with the computer
to carry out computing tasks.



It's not all that complicated!