

VTU → Sem 1 → C  
 Sem 2 → Python  
 Sem 3 → DSA in C Java - 12 P \* RST  
 Sem 4 → ADA / DAA → \* Heaps CBT  
 DBMS  
 Sem 5  
 Sem 6 → [DevOps] Continuity  
 Sem 7 → (DSA)

\* Capgemini - TCS CodeVita } (JD) (Cost)  
 Lg Soft - 9 to 12 LPA }  
 Lumen Tech - 7 to 10 LPA } (OJT) x  
 (A+C+T+HR) } 3m → T  
 (Basics) (0-1) (AI)  
 DevOps SDLC → (Tech Stack) (History)  
 Version Control

History: → 1940/42 → Denis Ritchie (SHA-256)

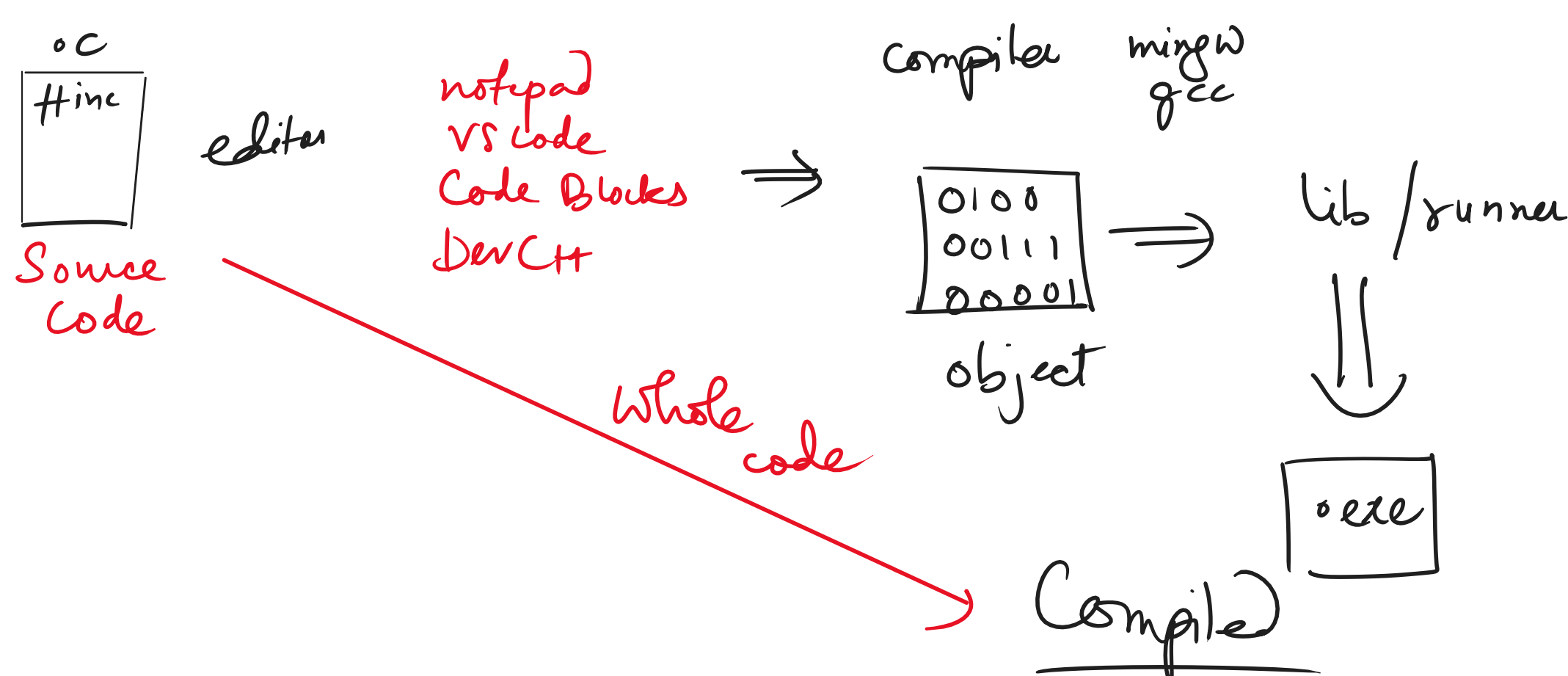
(A) + mod n → (B)  
 (B) + mod n → (C) Founded (1972)  
 (1989) ANSI - C [1st Std Ver C]  
 (UNIX) μc/wp  
 (BE) x  
 {AICTE}  
 {NAAC}  
 {NBA}

Data Types: → In C

bool → <stdbool.h>

Primary	Void	Enumeration	Derived
Integer	void	Named Constants	Arrays
Short → 2B → -128 to 127		JAN - DEC	Strings
int → 4B → -2 <sup>31</sup> to 2 <sup>31</sup> - 1		Colors - R, B, G, Y	Pointers
long → 8B	INT-MIN INT-MAX	MON - SUN	Struct Union
Float		Integer - default 4 bytes	
float → 4B			
double → 8B			
Character			
char → 1B			

C + SIMULA = C++ (extension) (RUST)  
 Danish / Denmark  
 Bjarne Stroustrup  
 [Sum Micro systems] James Gosling  
 C Java 1995  
 C++ Python 1991  
 [Oracle]  
 Monty Python Flying Circus { Guido van Rossum (16 days)



(WORA) ⇒ Write Once Run Anywhere

(OS) C  
 javac filename.java  
 compilation → filename.class (Byte code) (Symbolic Language)  
 • java → • class → (JIT)  
 (Same) native → results  
 JIT Just In Time Compiler  
 I  
 JDK source files javac  
 env variables (path)  
 JRE  
 JVM

Data Types: →

Primitive	Simple Values JVM (auth)	Wrapper Classes	Complex Objects (Non-Primitive)
byte	boxing	Byte	String
short		Short	Date java.util
int		Integer	Date java.sql
long		Long	LinkedList
float		Float	Collection Framework
double		Double	
char	unboxing	Character	
boolean		Boolean	
P → W (B)		(java.util) →	
W → P (UB)			