
Day 1

Welcome

to

Learn the Art of

Hacking through Programming

① Idea of Hacking:

- Electromic Vandalism
- Espionage
- Dyed Hair
- Body piercings
- Tatooed
- Hooded

MOVIES TEACH US

② What is Hacking

~~– People who break laws~~

LAWYER
=HACKER – People who follow the laws

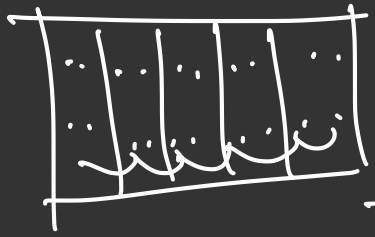
What is law?

① Set of rules
② which the computer follows
③ What is possible
④ what is not possible.

– Programming laws

RULES = PROGRAMMING

③ Original Hackers



→ 1950 – MIT model railroad club
– Donations : Telephone equipment
– A group of people – Setup a Rig

Original Hackers:

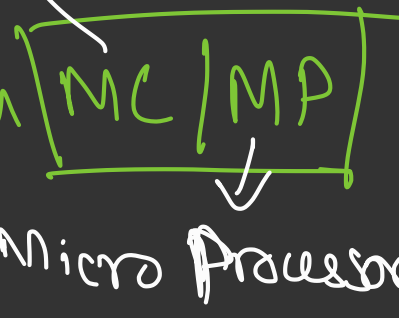
– Built a complex system
– Allowed Multiple people to control the dailing tracks

Mining Rig.

④ Takeaways :

① Hacking is not limited to Computers

- Electronics
- Automobiles
- Any Electronic Apps...
- Anything that runs on a MC / MP



② People who have Interest & Talent.

③ Crackers (1950s)

- People who uses other's scripts
- Less talented
- 2020 - Script kiddies
- People who do piracy

Movie, Software, Code

- Reverse Engineer
- copy protection schemes

(5) The world of Cyber Security

Tiger → Deer

10 mph — 12 mph

20 mph — 25 mph

Hackers → Progs
v1 → v2
v2 → v3

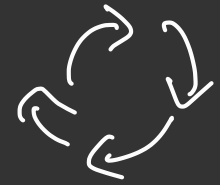
Co-Evolutionary Process

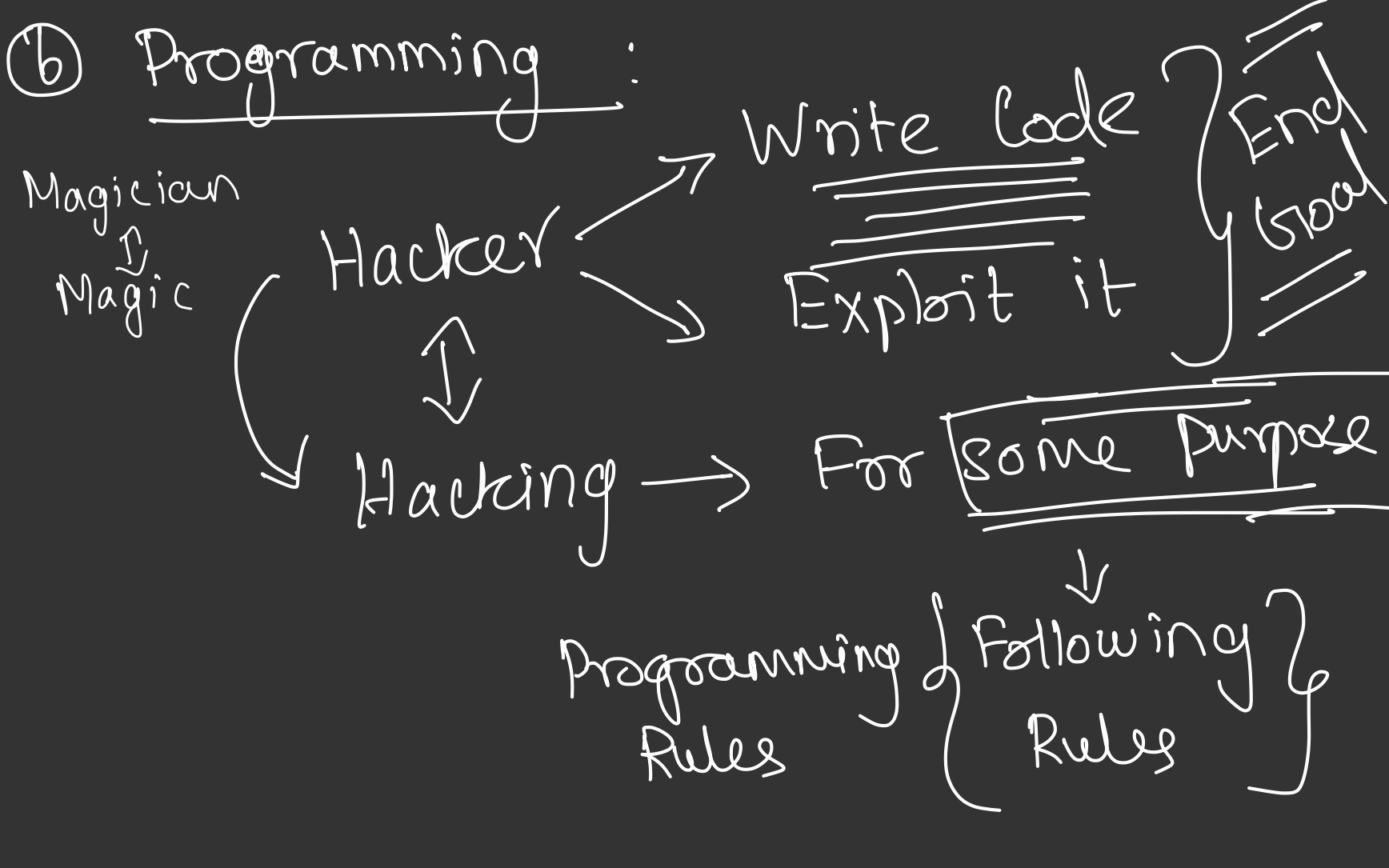
- IDS - Intrusion Detection System

v1 → Hacked

v2 ⇄ Hacked

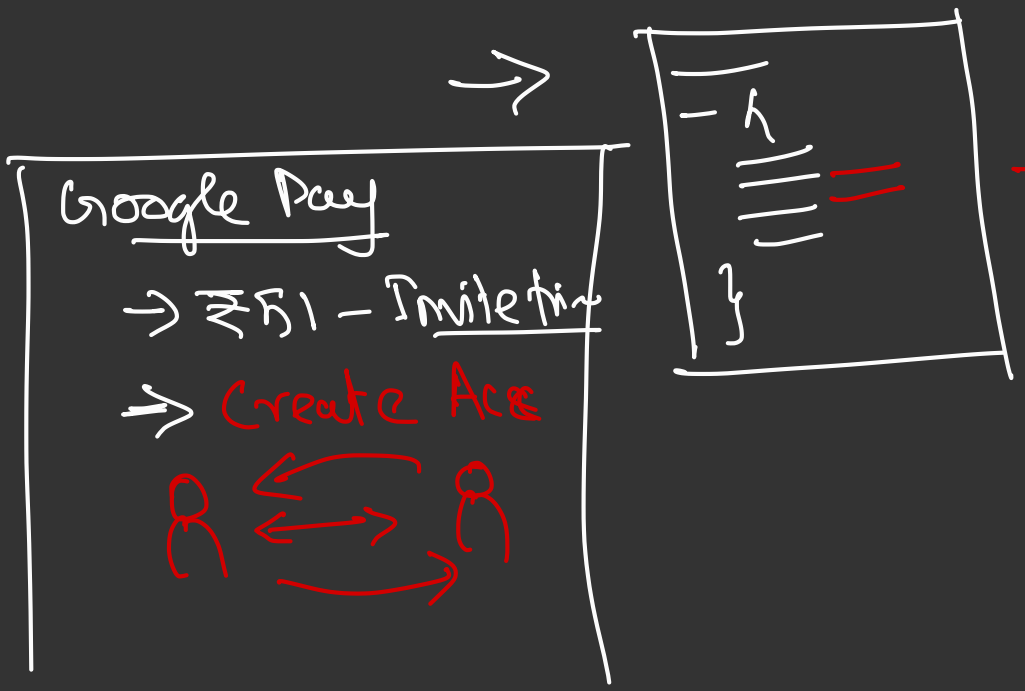
v3




⑥ Programming :
Magician
Magic
Hacker
Write Code
Exploit it
End Goal
Hacking → For Some Purpose
Programming Rules
Following Rules

① Understanding of Programming

→ Problem Solving = Hacking



→ Exploitation

↓

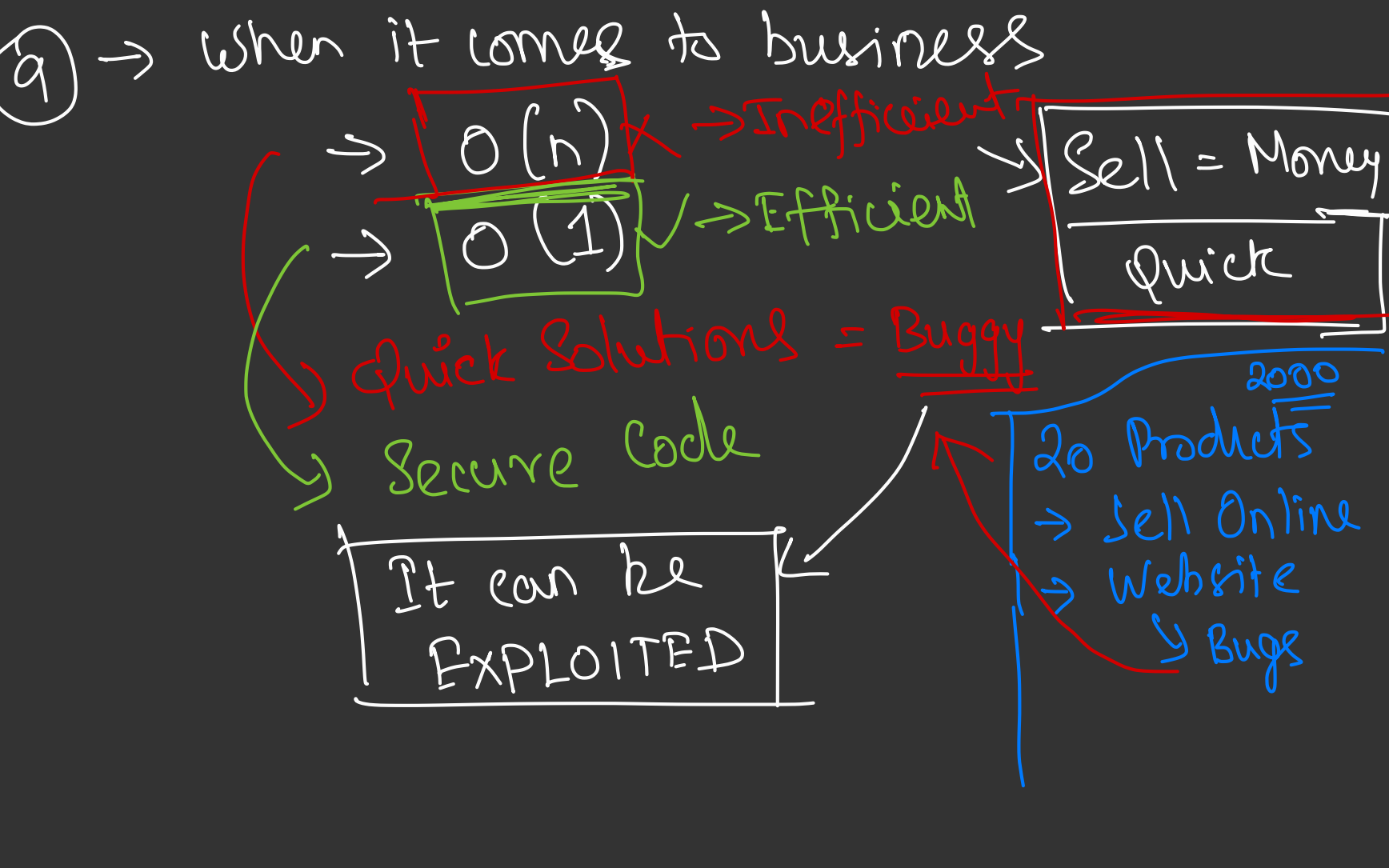
Using the same Procedure, But using it out of the intended rules !!

⑧ Solutions for Problems :

→ Problem = Multiple Solutions

Example

	Input <= O(1)	O(n) => Input
	Deleting	Copying
	100 GB ↓ 1s	100 GB ↓ 10 hrs
Big "O" <=	O(1)	O(n)
	200 GB = 1s	10 GB = 1hr


9 → When it comes to business
→ O(n) → Inefficient
→ O(1) → Efficient
Sell = Money
Quick
Quick Solutions = Buggy
Secure Code
It can be EXPLOITED
2000
2o Products
→ Sell Online
→ Website
↳ Bugs

⊙> Exploitation (Exploiting a Buggy Code)

Inefficient

→ Hacks = Intelligence

Exploits → Rules of the computer

→ Writing an Elegant Code - Efficient

→ Hacks = Intelligence

Hacking is really just an art/act of finding a clever and counterintutive solution to a problem //.

(1) ⇒ In business world - 2020

→ 5.0 GHz ⇒ i9-9900K

→ A problem → 1 GHz ⇒ 1 hour

→ 5 GHz → 20 min

The Issue: Why? To make it Marketable

⇒ The are increasing the clock speed, but not making the solution for a problem, efficient. = speed

NEED FOR CYBERSECURITY

(12) → Narrow Security cracks

Means the same
- → Bugs, Issues, Loop holes
- → Flaws, Errors
- → Vulnerability

Why?

Quick Marketable Solution ✓
- QUICK MONEY

BUT NOT
- Elegant
- Best possible Solution

DONT APPRECIATE THIS ✗

(13) Final Summary

→ Since an understanding of programming is a prerequiste to understanding how programs can be hacked, programming is a natural starting point → to learn HACKING ☺