



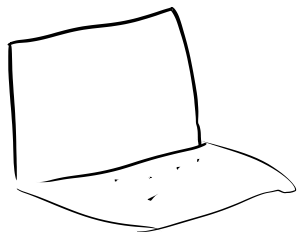
MP8

SSH — Shells

Permissions

Connect

SSH



TCP/IP
Socket

Fixed
Port 22

Port 43134
random

VM

Port 12345
random



Encrypt

Diffie-Hellman key Exchange

Symmetric cipher



Guaranteed

Seq.	Fingerprint

340840

1342107
random

encrypt w/ PK

340840

Public key

Fingerprint

Private
key

decrypt

1. Password

Username

password

Salt

hash

list of hashed
passwords

2. Key

Priv

Pub

Pub

want: total access to VM

SSH

↳ program language

shell

ash

bash

bash

csh

...

Church Turing Thesis

↳ Turing-complete lang
can do anything

lines of words

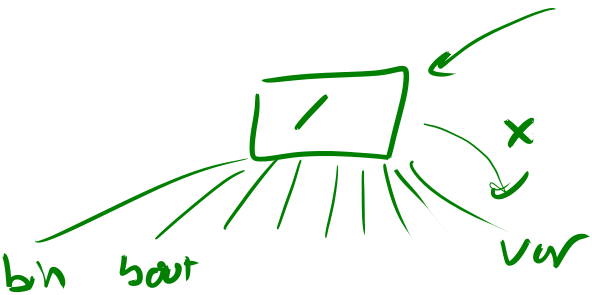
1st word = a program

rest = arguments

Permissions

Process runs as

User
group



each file

owning user

group

Permissions

User

group

others

✓	✓	✓
		✓

read

write

execute

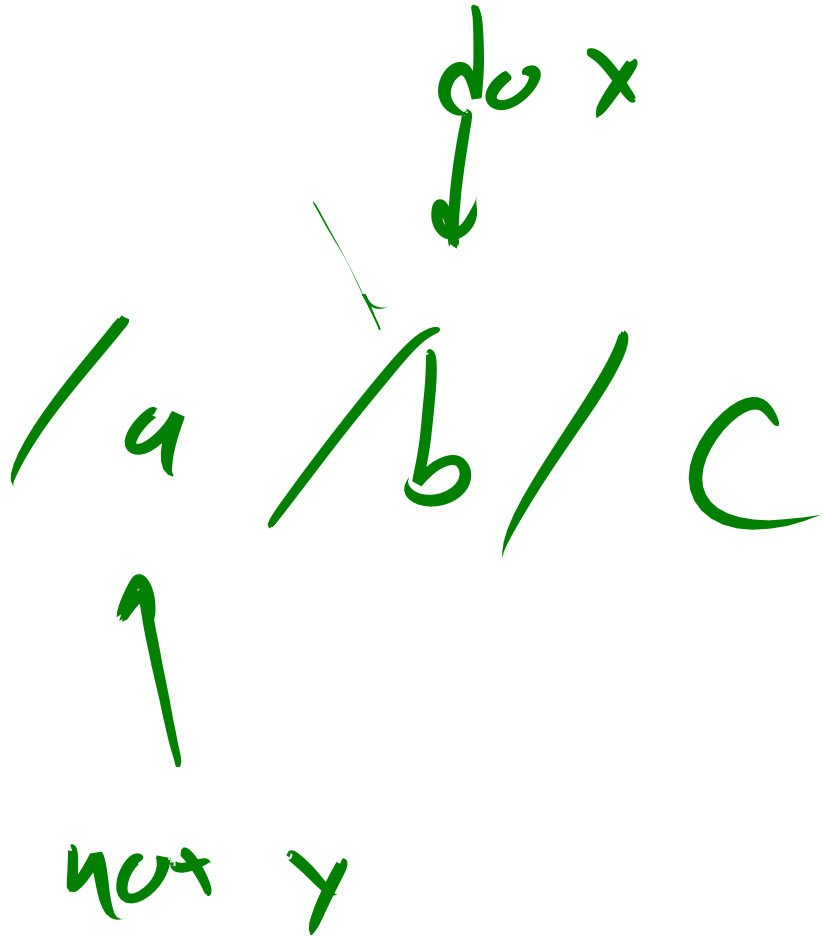
directories

✓ ← Is works

w ← Change what is in dir

x ← do something inside dir

rm



root

is the super-user