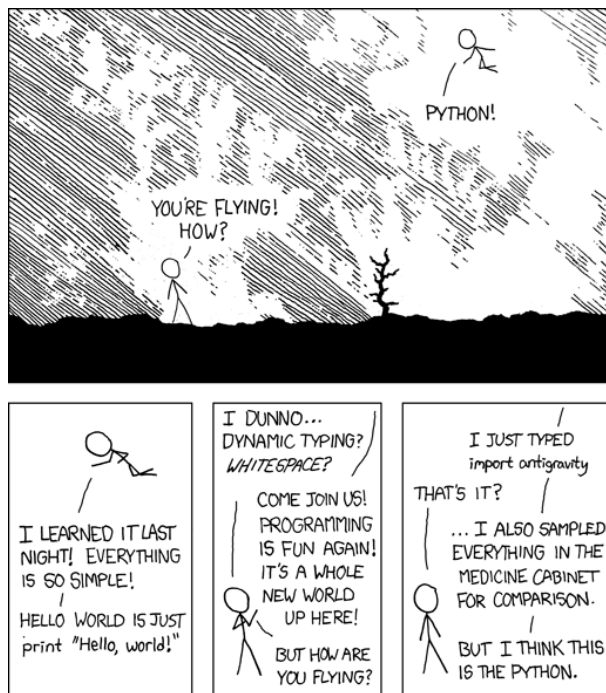


How computers and programming work



What will we learn?

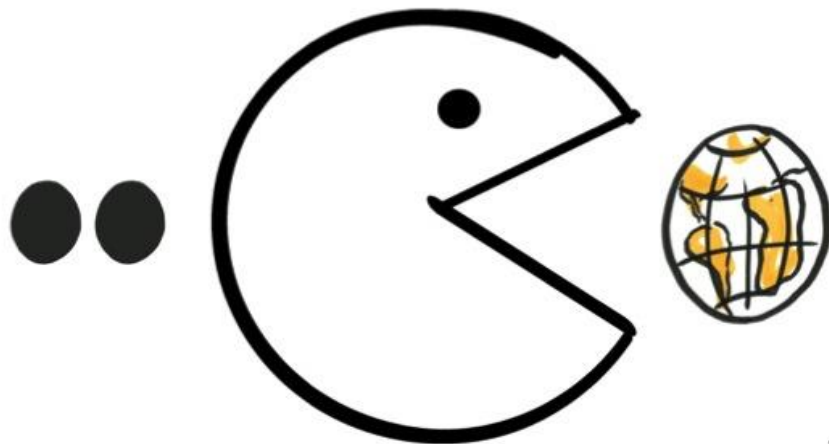


- Programming - the process of creating a computer program
- Basics of Programming (Python)
- How to get your computer to do what we want
- How to divide and conquer any problem
- Automate the boring stuff!

Programs eat up the world



Software is eating up the world*

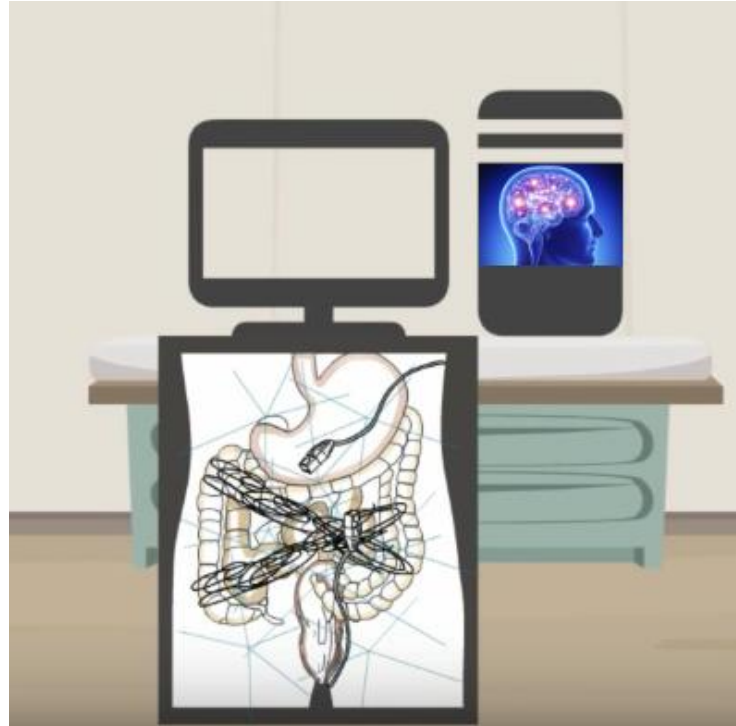


* Marc Andreessen
in Wall Street Journal

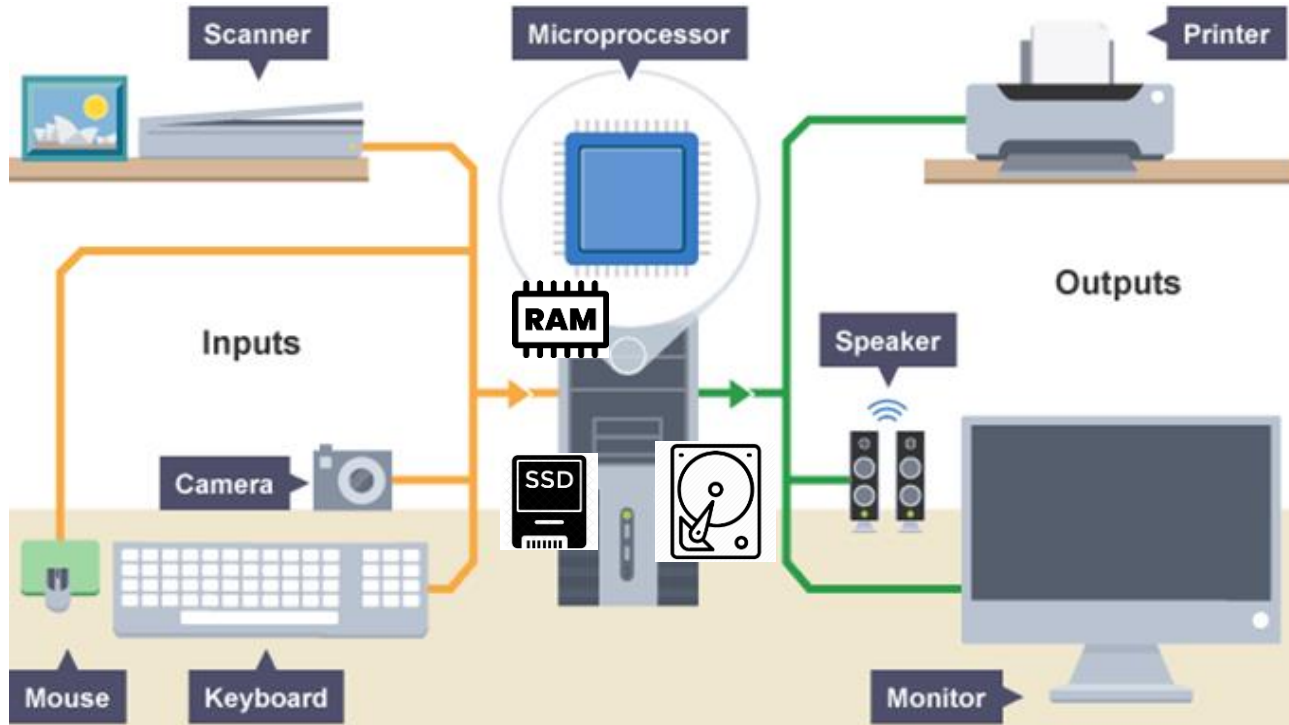
Data



Computer = obedient child (but particular)



... digest everything we feed



How to talk to the computer?



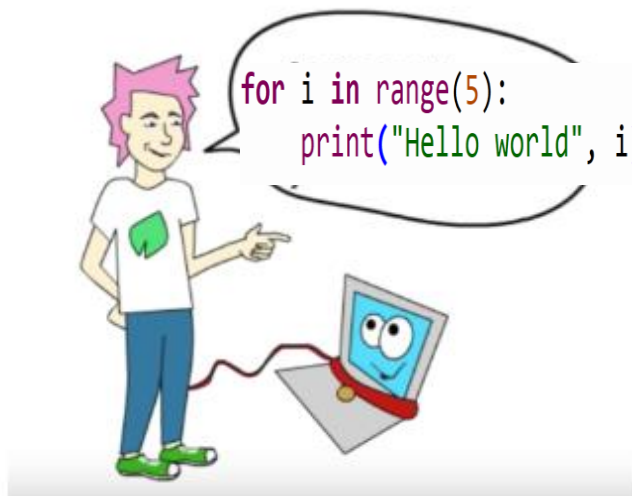
“Welcome to The Matrix”



Mašīnkods



Cilvēkam lasāms kods



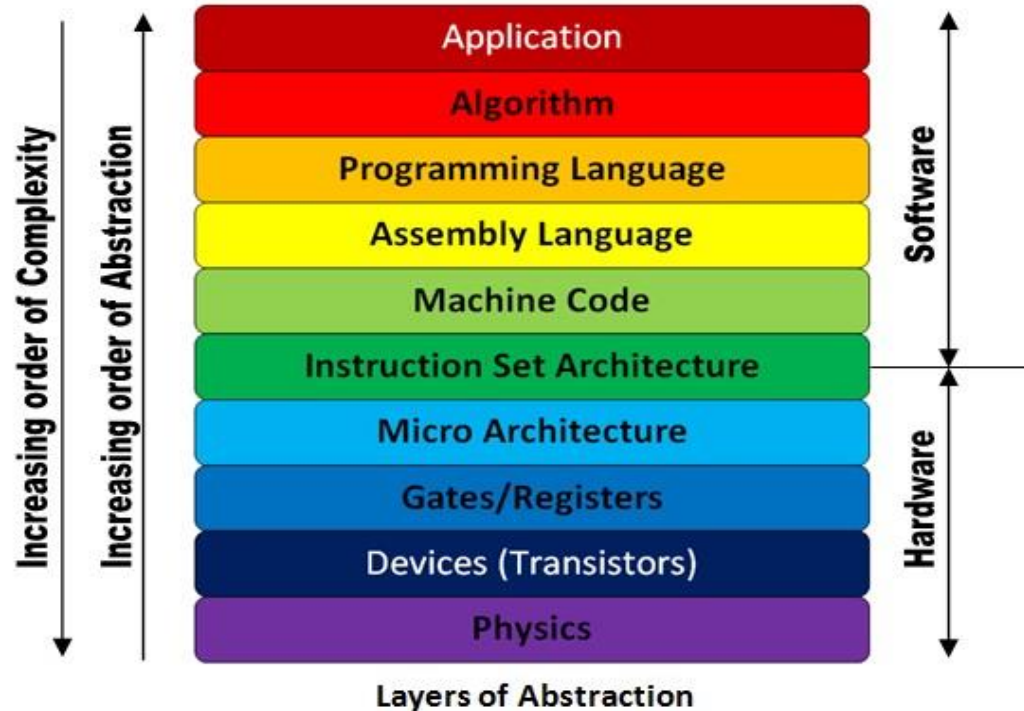
Abstraction



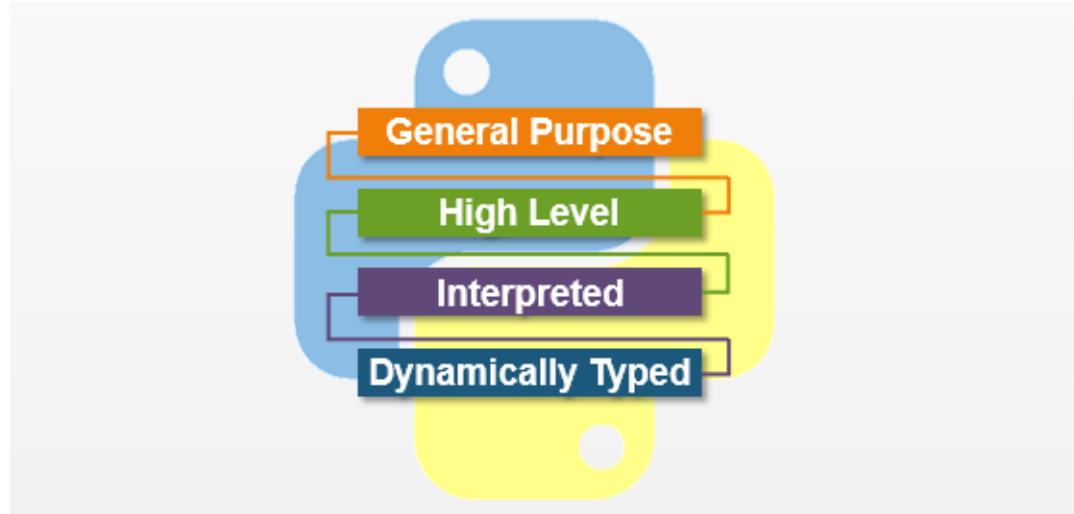
Abstraction



Abstraction



Python language



General



The popular YouTube video sharing system is largely written in Python



Google makes extensive use of Python in its web search system



Dropbox storage service codes both its server and client software primarily in Python



The Raspberry Pi single-board computer promotes Python as its educational language



RaspberryPi

COMPANIES USING PYTHON



BitTorrent peer-to-peer file sharing system began its life as a Python Program



NASA uses Python for specific Programming Task



The NSA uses Python for cryptography and intelligence analysis

NETFLIX

Netflix and Yelp have both documented the role of Python in their software infrastructures

General Glue Language



- Readable
- Interactive
- Interpreted
- Dynamic
- Object-oriented
- Portable
- High level
- Extensible in C++ & C

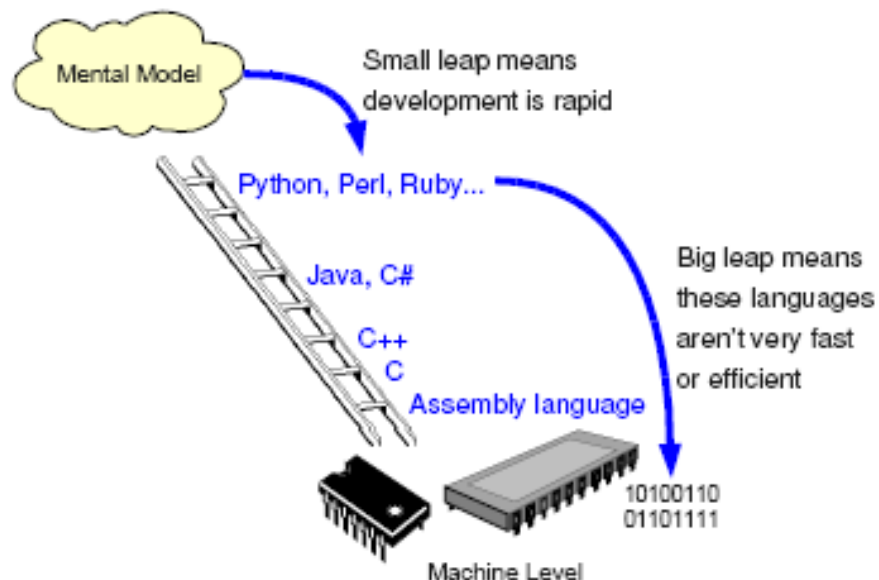


High-level



VHLL Benefits & Drawbacks

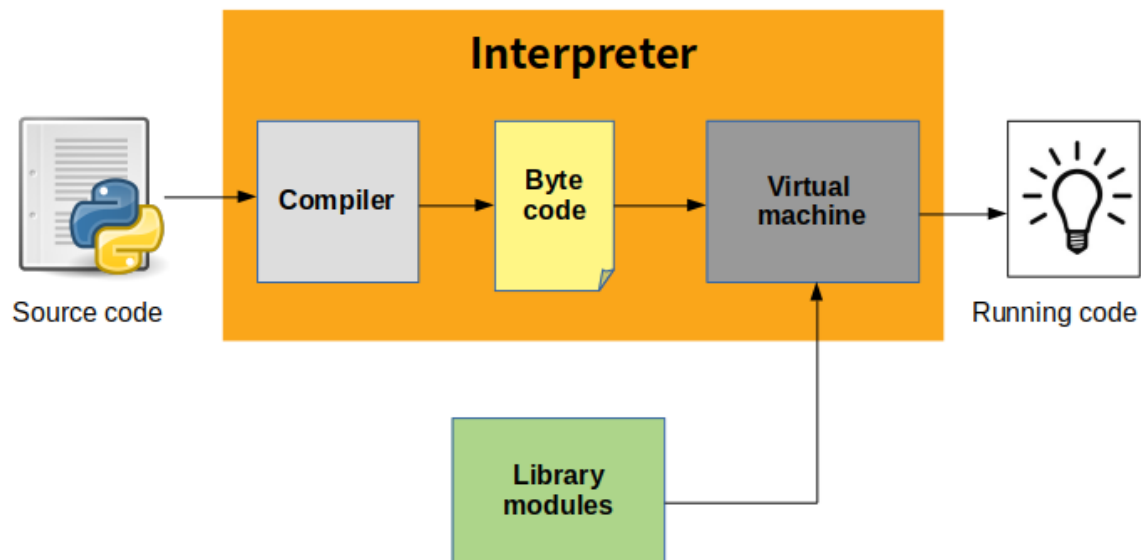
UNIVERSITY OF LEEDS



Python interpretators



Python interpreters



Izstrādes Vide





Name

How you got here

Experience

What you want to achieve

