

# CS147 - Lab 01

Kaushik Patra  
([kaushik.patra@sjsu.edu](mailto:kaushik.patra@sjsu.edu))

1

- Simulator
- Tools to be setup for lab.

# Simulators

- Simulator virtualizes real life operations.
  - Flight simulator virtualizes flight experience for pilots.
- For computer architecture we'll use digital simulator.
  - Digital simulator is an application program which can virtual show real life operation for digital circuits.
  - Extensively used by digital chip design houses.

2

# Tools for CS147

- ModelSim from MentorGraphics.
  - [http://www.mentor.com/company/higher\\_ed/modelsim-student-edition](http://www.mentor.com/company/higher_ed/modelsim-student-edition)
  - Search in google for modelsim student edition.
  - This is Windows only option.
  - Example will be shown and project will be verified using this tool.

## Tools for CS147

- Alternatively there are other tools, which may be available on linux and have digital simulation capabilities.
  - ISE Web pack from Xilinx.
  - Quartus from Altera
    - They may have ModelSim integration available on linux.
  - Active-HDL from Aldec.

## Tools for CS147

- If other tools does not work on Linux then:
  - Install windows either dual boot or through virtualization (e.g. virtualbox – a free OS virtualization software).

# CS147 - Lab 01

Kaushik Patra  
([kaushik.patra@sjsu.edu](mailto:kaushik.patra@sjsu.edu))

6

- Simulator
- Tools to be setup for lab.