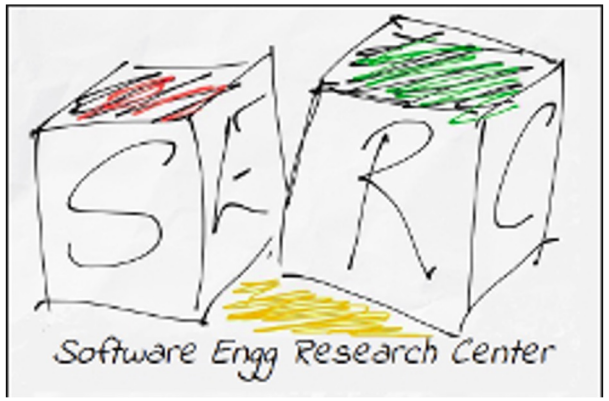
INTERNATIONAL INSTITUTE OF INFORMATION TECHNOLOGY

HYDERABAD



Introduction to Software Systems

Spring 2022

Who are we?

Instructors:

Y. Raghu Reddy

Ankit Gangwal

Sai Anirudh Karre

Abhinav Gupta

Course Details

- **Course Objective:** The aim of this course is to provide a working knowledge on tools for building simple software systems.
- **Course Structure:** 9 classes (1.5 hrs per class), Lab Work – 3 hrs per week (7 lab sessions overall)
- **Grading split up:** Quiz – 20%, Final Exam – 25%, Assignments – 25% (3), Labs – 20% (4); Others– 10%

- **Course Notes:** Reference Material and relevant notes will be made available on Moodle and on Github. Students are expected to read the notes/reading material, put on effort, work towards rising your problem-solving skills and learn things by doing.
- **Lab Work:** Linux Commands, Shell Scripting, HTML, CSS, JavaScript, Python

- **Books/Materials:**
  - Mastering Linux Shell Scripting : A practical guide to Linux command-line, Bash scripting, and Shell programming, by Mokhtar Ebrahim, Andrew Mallett
  - Learning Python: Powerful Object-Oriented Programming, by Mark Lutz
  - JavaScript: The Definitive Guide, by David Flanagan
  - Software Engineering Principles (from various sources)
  - Workbook given by the course instructors
  - https://serciiit.gitbook.io/introduction-to-software-systems/

Academic Honesty

A helps B in task X

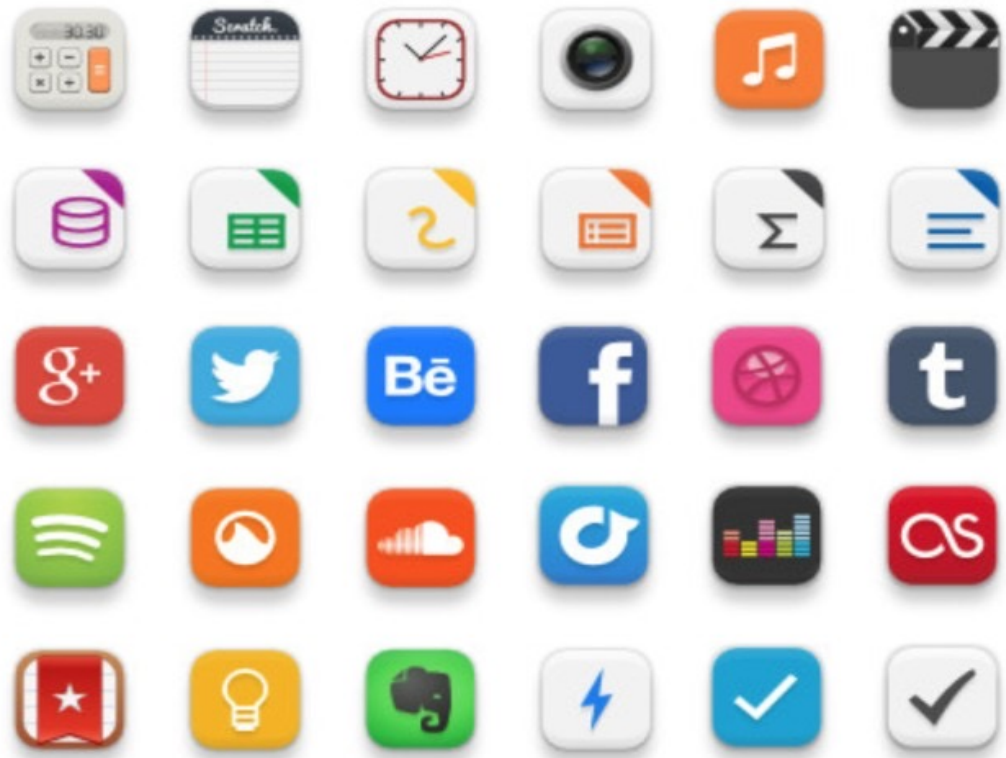
- B doesn't get opportunity to do task X
- B doesn't learn the skill to do task X
- B gets spoilt, dependent and unfit for jobs requiring skills of X
- You may think it is okay to do it only once and not repeat it. But when a thing is done once, it gets wired into the brain as being "okay"; and unless there is a strong reason, it *will* repeat.

If you want to help, help to learn.

What's a System?

- Commonly used/understood definition
  - ➢ Set of inter-related components working together to achieve a common objective
- A system may be "Natural" or "Engineered"
  - Solar system (Natural)
  - Telephone network system, power plants, etc. (Engineered)
  - Systems have boundaries – due to various reasons

Hardware



Software

This course is about… Tools and Technologies for Software Systems