

**دانشگاه کردستان** University of Kurdistan زانکوی کوردستان

# Advanced Software Engineering Course

**Basics review** 

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# Initial assessment

- 1. Write down a formal Definition of Software Engineering
- 2. What are software engineer tasks?
- 3. Find three top most software engineering journals
- 4. How we measure the size of a software?
- 5. How we measure the quality of a software?
- 6. Enumerate differences between front-end & back-end software engineering

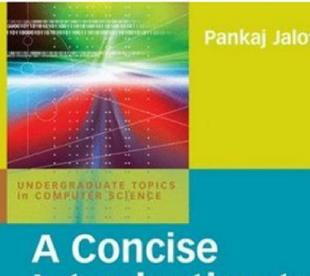
Agenda

- Review most important basic concepts
- First steps for software engineering research



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## This session references



A Concise Introduction to Software Engineering WHAT EVERY ENGINEER SHOULD KNOW ABOUT

#### SOFTWARE ENGINEERING

**Phillip A. Laplante** 



CRC Press is an imprint of the Taylor & Francis Group, an **informa** business



### Basics

# Formal definition of Software Engineering IEEE definition

#### > Software Engineer tasks

- > Less than 50% of tasks refers to coding
- > Difference between Programmer & Software Developer

#### > Is there a whole certification for software engineering?

- There are plenty partial certifications

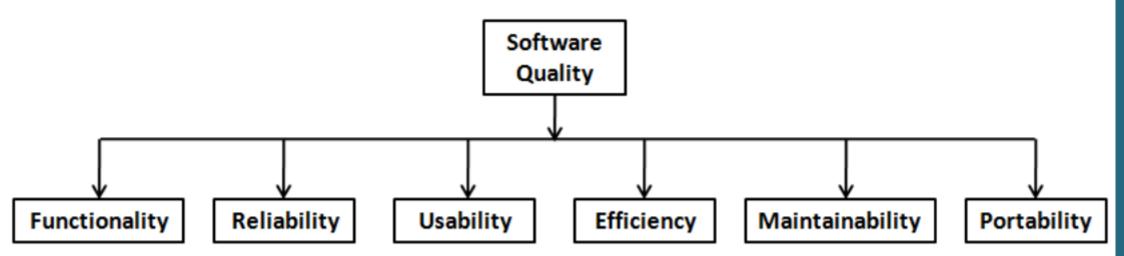
# Problem of Software Engineering



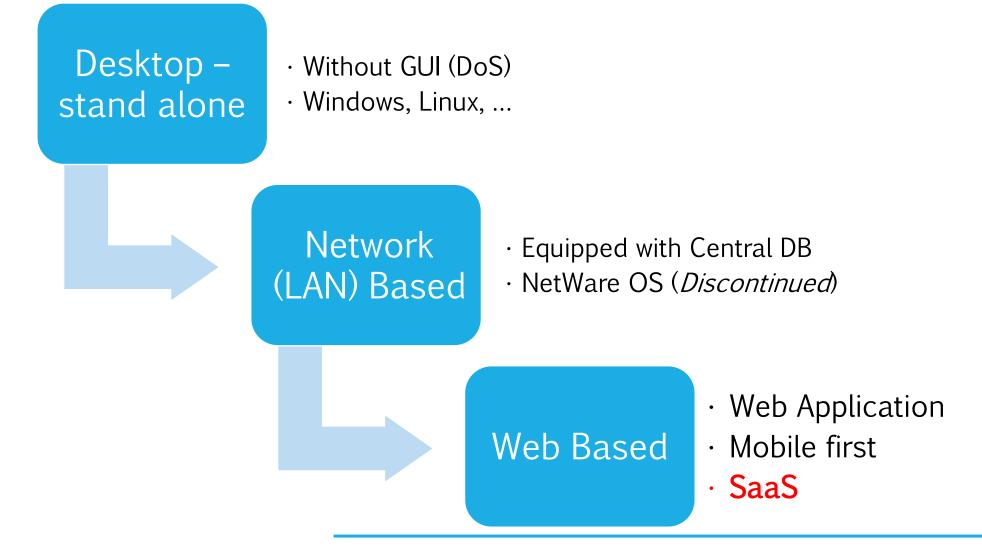
#### Software Process Models?

# How to compare two similar softwares?

- > Size?
  - LoC
  - Function Point
- > Quality



# Network impact on software types



# Web based software development steps

#### 1. Goal

- Static
- Dynamic
  - Routine
    - CMS
  - Customized

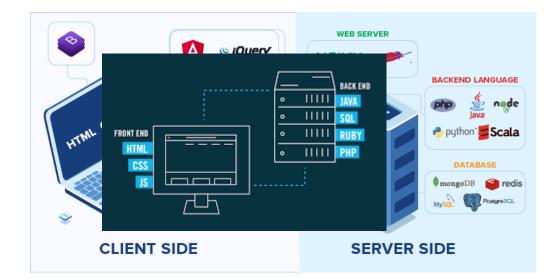
#### 2. Domain name registration

- Global
- Local
- Free

# Web based software development steps

#### 3. Development

- Graphics
- Front-end
  - > HTML
  - > CSS
  - JavaScript
- Back-end
  - > PHP, RUBY. .NET, JS
  - Databased
    - MySQL
    - SQL Server
    - NoSQL



# Web based software development steps

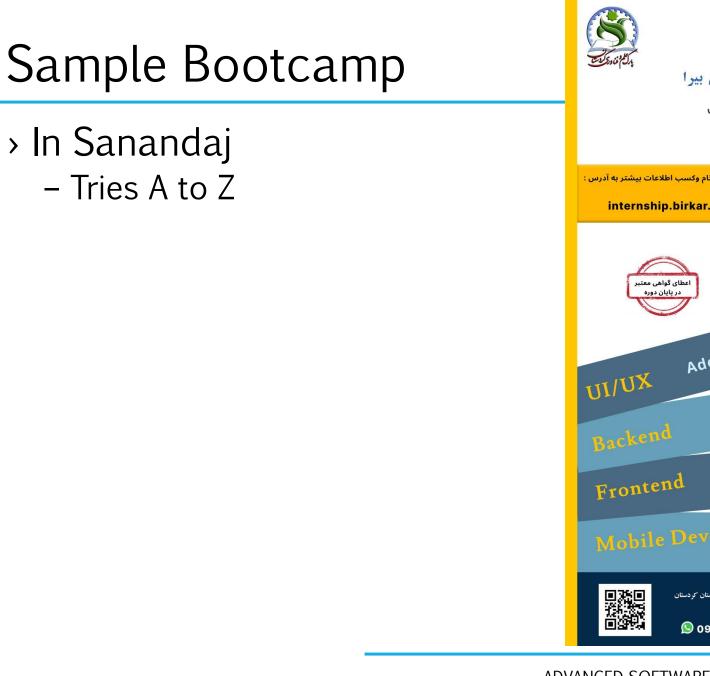
#### 4. Hosting

- Windows based
- Linux Based
- Other Services
  - > Email

#### 5. Search engine optimization

#### 6. Maintenance

- Domain name & hosting renewal
- Bug fixing
- Update





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# Class presentation topic

- Propose a <u>feasible</u>, <u>directly related</u> title for class presentation
  - Write down your propose in online sheet



#### Question?

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