

# Software Engineering Streaming

by Meiliana – D4572

People  
Innovation  
Excellence

- Ganjil 2018/2019-

# Outline

- Introduction
- Course Structure
- Research Topics
- Application Example from Thesis
- SE Career

# Software Engineering

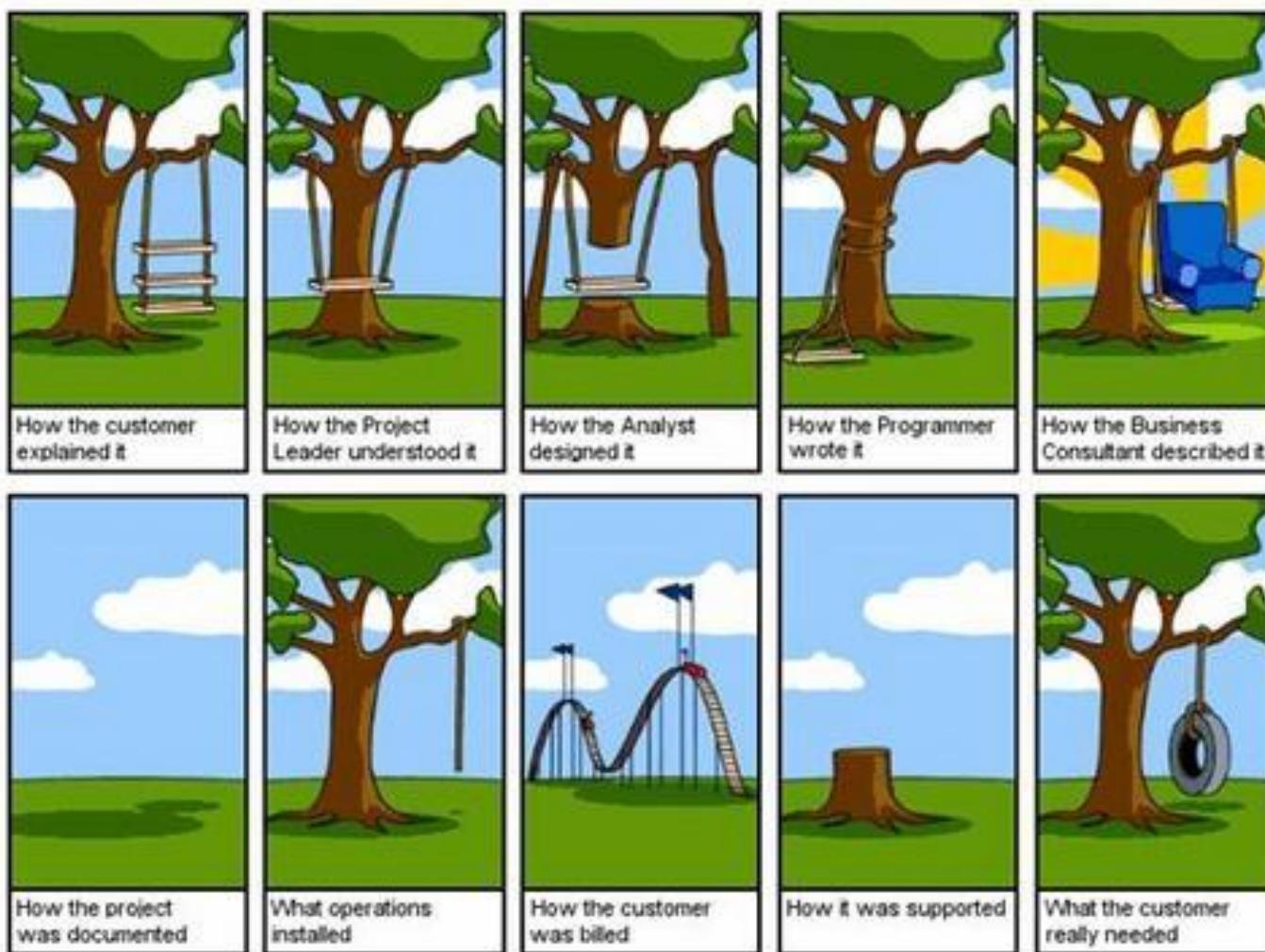
## Definition

- The process of **solving customers' problems** by the **systematic development** and evolution of large, **high-quality software** systems within **cost, time and other constraints**
- The systematic activities involved in the **design, implementation** and **testing** of software to optimize its production and support.

# Nature of Software

- **Software is intangible**
  - Hard to understand development effort
- **Software is easy to reproduce**
  - Cost is in its development
- **The industry is labor-intensive**
  - Hard to automate

# Why Software Engineering



# Course Structure

## 4<sup>th</sup> Semester

Code Reengineering	4
Agile Software Engineering	2
Pattern Software Design	2/2

## 5<sup>th</sup> Semester

Object Oriented Analysis & Design	2/2
Framework Layer Architecture	2/2

# Code Reengineering

- Refactoring Science
- Simplify your code
- Less your complexity code

# Agile Software Development

- Learn Scrum Methodology
- Learn Scrum practically with software tools

# Pattern Software Design

- Learn Design Pattern in Object Oriented Programming
- Course starter to learn framework architecture software

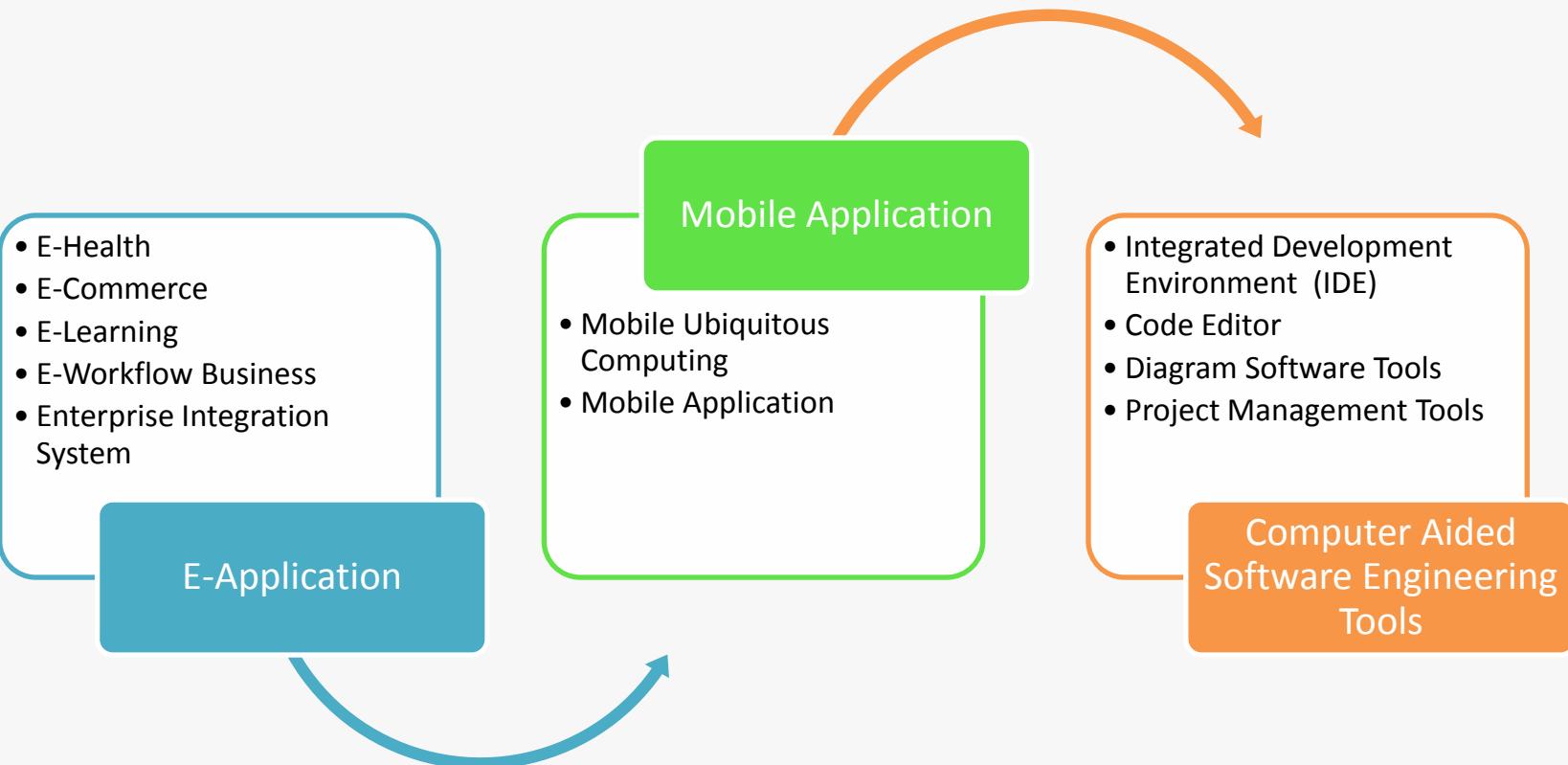
# Object Oriented Analysis & Design

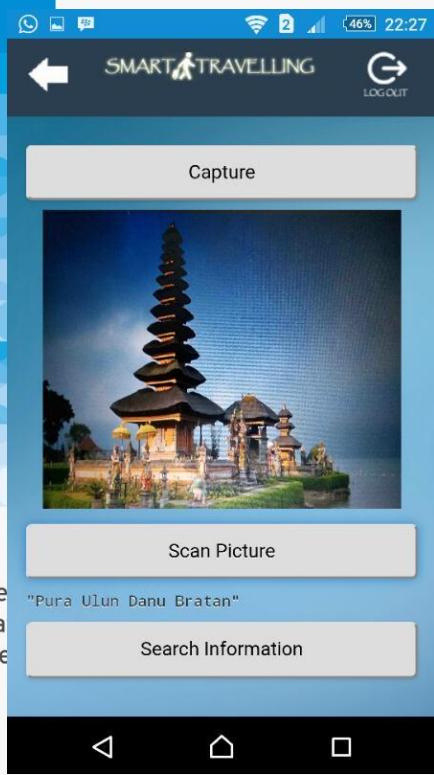
- Learn thinking OO Design with UML Tools
- Use UML Tools effectively

# Framework Layer Architecture

- Learn how to create architecture code in Enterprise Level
- Learn from MVC to Enterprise Architecture

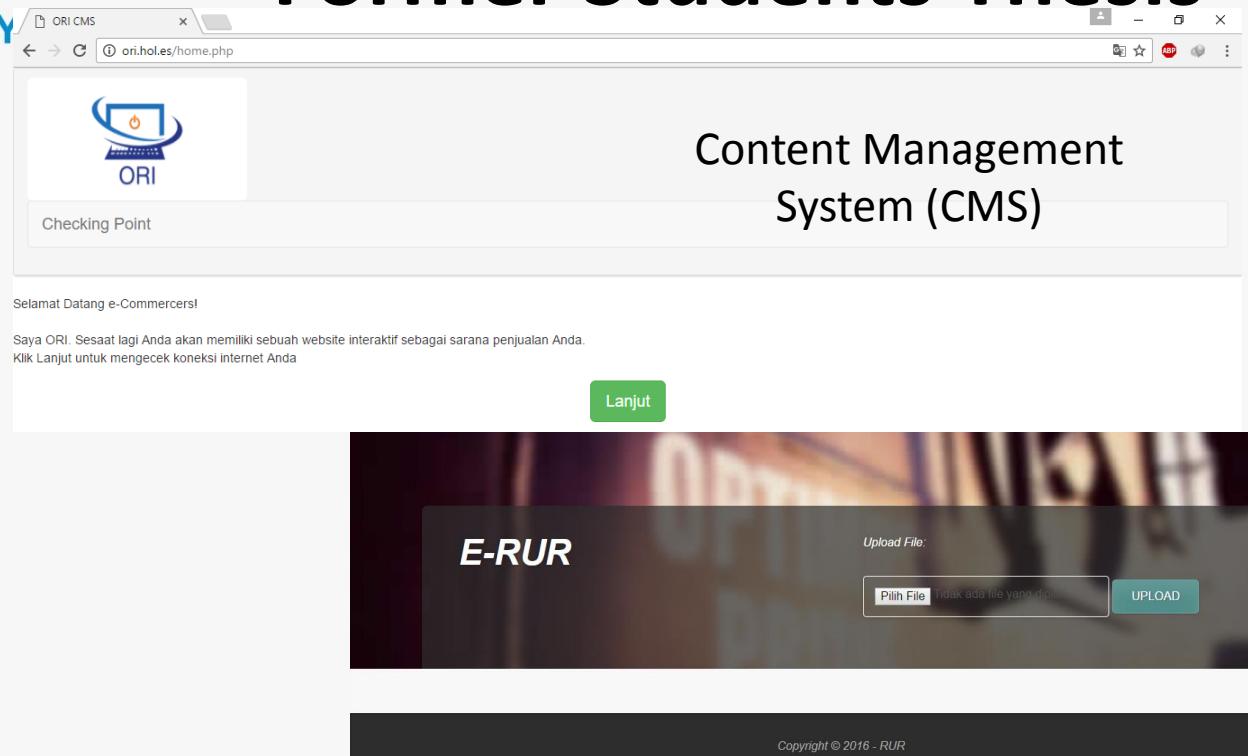
# Research Topics





Smart Traveling

# Former Students Thesis



The image displays a Content Management System (CMS) interface titled 'Content Management System (CMS)'.

The CMS interface includes:

- A header bar with the title 'Content Management System (CMS)'.
- An 'ORI CMS' tab in a browser window.
- A URL bar showing 'ori.hol.es/home.php'.
- A sidebar with a computer icon labeled 'ORI' and the text 'Checking Point'.
- A main content area with the message 'Selamat Datang e-Commerce!' and instructions for connecting to the internet.
- A green 'Lanjut' button.
- A large image area with a dark overlay containing the text 'E-RUR' and a file upload section.
- A footer with the text 'Copyright © 2016 - RUR'.

System Penelusuran Publikasi



**Culiver**

Mobile Apps – Pencarian  
Tempak makan

Carrier 2:42 PM

Dog with mustache

**Back** Dog with mustache

Lorem ipsum dolor sit amet,  
 consectetur adipisicing elit.  
 Reprehenderit, iusto, tempora  
 illum iure itaque quae id illo eius  
 atque praesentium!

Lorem ipsum dolor sit amet,  
 consectetur adipisicing elit.  
 Aspernatur, tempore eaque sint  
 porro quaerat.

MindKeepin – IOS  
OCR MindMap

# Former Students Thesis

## DOC MANAGER

Home Share Upload Reports Control Panel Logout

Search by tags or name  Search Advanced search

Welcome, admin

Doc Type	Name	Type	Upload Date	Uploader	Size
CV	CV-Adri-Rosyidi	PDF File	2013-12-23 21:10	admin	160 KB
CV	CV-Masayu-Adiska	PDF File	2013-12-23 20:01	admin	212 KB
CV	CV-Zsa-Zsa-Lauditta	PDF File	2013-12-23 21:10	admin	205 KB

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File Help Notification Account

Tampilan Workspace

Tampilan Tree Project

Tampilan Group Management

Tampilan Sprint Management

①

②

③

④

WEB IDE SCRUM  
METHODOLOGY

Electronic Medical Record dr. Indrayana SP.Og

Patient Information

Medical Record

Diagnose Lab Result Radiology Document

Insert Patient ID Submit

MR ID: 4 Nama: Ny. Diah

View Patient Profile

Medical Record

Operasi Cesar	Document	2014-02-03 10:38:44
Pemeriksaan Kandungan	Diagnosis	2014-02-03 10:36:52
Hasil Pemeriksaan USG	Diagnosis	2014-02-03 10:35:42
Uji Lab	Lab	2014-02-03 10:21:00
USG	Rontgen	2014-02-03 10:19:34
Pemeriksaan Kandungan	Diagnosis	2014-02-03 10:18:36

Medical Record Profile

Medical Record System

# Former Students Thesis

- PENGEMBANGAN APLIKASI PERKIRAAN KEDATANGAN BUS TRANSJAKARTA MENGGUNAKAN GPS DAN WEB SERVICE
- PENGEMBANGAN APLIKASI VIRTUAL MEETING "DOVO" PADA SMARTPHONE BERBASIS ANDROID MENGGUNAKAN TEKNOLOGI VOICE OVER INTERNET PROTOCOL BERBASIS SESSION INITIATION PROTOCOL
- PENGEMBANGAN APLIKASI EVENT ORGANIZER "BOLT EVENT" DENGAN TEKNOLOGI RESTFUL PADA SMARTPHONE ANDROID
- PENGEMBANGAN APLIKASI PENGORGANISASIAN DOKUMEN "LETTERY" PADA SMARTPHONE BERBASIS ANDROID
- PENGEMBANGAN APLIKASI PENGENDALI KOMPUTER JARAK JAUH "ALTERMOTE" MENGGUNAKAN TEKNOLOGI WI-FI PADA SMARTPHONE BERBASIS ANDROID
- PENGEMBANGAN APLIKASI MOBILE BUKU HARIAN UNTUK BAYI PADA PT. DIHARDJA SOFTWARE SOLUTIONS

# Former Students Thesis

- LAYANAN PERENCANAAN DAN PENJADWALAN PARIWISATA MASYARAKAT INDONESIA DENGAN KONSEP JEJARING SOSIAL BERBASIS WEB
- PENGEMBANGAN PROTOTYPING APLIKASI NOTESHARING BERBASISKAN MULTIUSER DENGAN MENGEKSEPKLUSI MENGIMPLEMENTASIKAN TEKNOLOGI WEBSOCKET DI TABLET ANDROID
- PENGEMBANGAN E-ORGANIZER EVENT BERBASIS WEB DAN MOBILE DENGAN MENGGUNAKAN TEKNOLOGI NOSQL
- PENGEMBANGAN SISTEM PENGUKURAN BIAYA PEMBUATAN PIRANTI LUNAK
- SISTEM PENGAMBILAN NOMOR ANTRIAN MELALUI PENDEKATAN UBIQUITOUS COMPUTING

# SE Career

## Management

- Chief Technology Officer
- Chief Information Officer
- IT Consultant

## System Development

- Project Manager
- Systems Analyst
- Systems Administrator
- Systems Programmer
- Applications Programmer

## Web Specialist

- Web Designer
- Web Programmer
- Web Administrator

## Scientist

- Lecturer / Trainer
- Researcher

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