

Rekayasa Perangkat Lunak Pendahuluan



Teknik Informatika
UNIKOM



Deskripsi Mata Kuliah

1. Sifat : Wajib
2. Prasyarat : Sistem Informasi
3. Waktu : 3 SKS



Silabus Mata Kuliah

1. Pendahuluan
2. Rekayasa Perangkat Lunak
3. Proses Pembangunan Perangkat Lunak
4. Requirements Engineering
5. Analisis dan Desain dengan Pemodelan Analisis Terstruktur (Sampai UTS).

Silabus Mata Kuliah

6. Analisis dan Desain dengan Pemodelan Analisis Berbasis Objek (3 pertemuan)
7. Pengujian Perangkat Lunak (2 pertemuan)
8. Pemeliharaan Perangkat Lunak (2 pertemuan)

Penilaian

20% (Tugas+Quiz) + 35% UTS + 45% UAS

Indeks	Nilai
A	$80 \leq NA \leq 100$
B	$68 \leq NA \leq 79$
C	$56 \leq NA \leq 67$
D	$45 \leq NA \leq 55$
E	$0 \leq NA \leq 44$

Referensi

1. Roger S. Pressman, Software Engineering: A Practitioner's Approach, 6th edition.
2. Ian Sommerville, Software Engineering, 8th edition.
3. Kendall, System Analysis and Design, 8th edition.
4. Slide perkuliahan.



Pendahuluan

1. Why we need to learn software engineering?
2. What is software and software engineering?
3. Software process.
4. Criterias of Good Software
5. CASE Tools

Why we need to learn SE?



How the customer explained it



How the Project Leader understood it



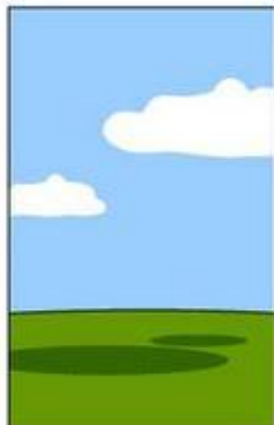
How the Analyst designed it



How the Programmer wrote it



How the Business Consultant described it



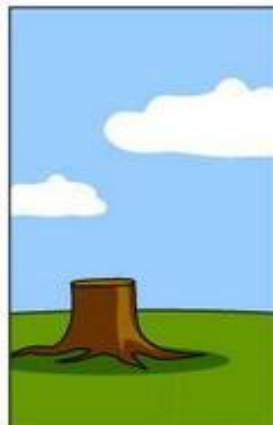
How the project was documented



What operations installed



How the customer was billed



How it was supported



What the customer really needed

What is software?

Program komputer dan dokumentasi yang berhubungan dengan program tersebut (dokumen analisis, desain, dan *user manual*).

What is software?

Perangkat lunak dibangun untuk pengguna umum atau khusus:

1. Generic → Public software
2. Bespoke (custom) → Private software



What is software engineering?

Disiplin ilmu rekayasa atau teknik yang berkaitan dengan semua aspek dalam membuat perangkat lunak.

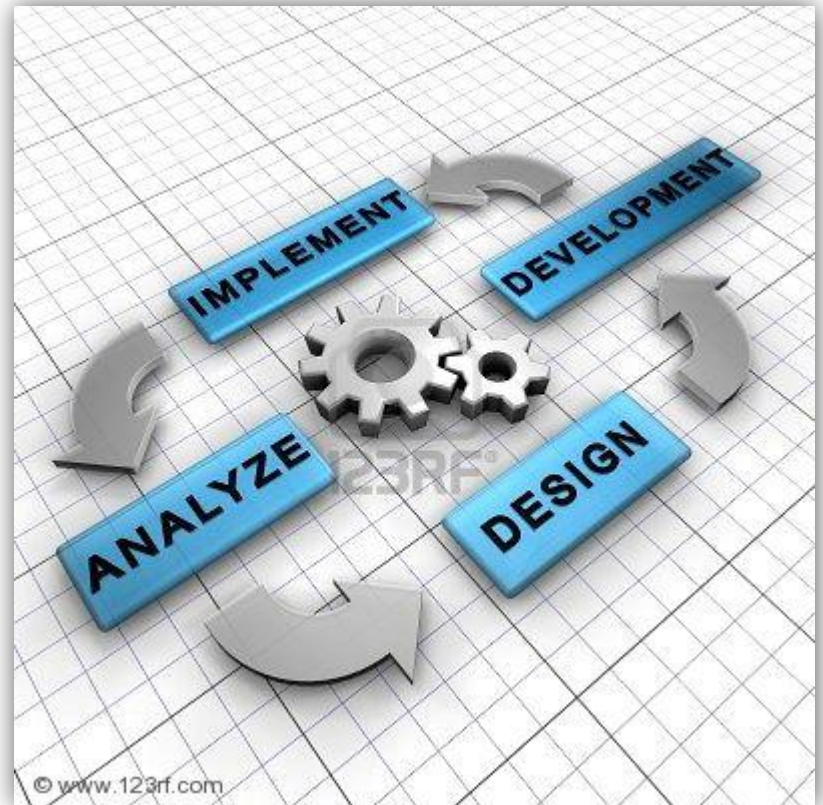


Software Process

Serangkaian aktifitas yang tujuannya adalah pembangunan atau evolusi perangkat lunak.

Aktifitas:

1. Spesifikasi
2. Pembangunan
3. Validasi
4. Evolusi



Criteria of Good Software

1. **Maintainability**

Software must evolve to meet changing needs

2. **Dependability**

Software must be trustworthy

3. **Efficiency**

Software should not make wasteful use of system resources

4. **Usability**

Software must be usable by the users for which it was designed

CASE Tools

1. Upper-CASE

Tools untuk mendukung aktifitas proses awal dari requirement dan desain

2. Lower-CASE

Tools untuk mendukung aktifitas selanjutnya seperti programming, debugging, dan testing.

SELESAI...