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Mata Kuliah : Analisis dan Desain Sistem
Dosen Pengampu : Dr. Totok Dewayanto, S.E., M.Si., Akt.

PERTEMUAN I

Selasa, 20 Agustus 2024

RPS Mata Kuliah Analisis dan Desain Sistem

Mata Kuliah **:** Analisis dan Desain Sistem
Jumlah Pertemuan **:** 16 Pertemuan (14 KBM, 1 UTS,1 UAS)
Durasi : (180 menit per pertemuan)
Tugas Akhir **:** Proyek Membuat Prototipe Sistem

Minggu	Topik	Subtopik	Aplikasi yang Digunakan	Rekomendasi Buku	Tugas
1	Pengenalan Analisis dan Desain Sistem	• Pengantar Sistem dan Analisis Desain Sistem	PowerPoint	**Kendall & Kendall (2019)** - *Systems Analysis and Design*	Tugas 1: Ringkasan peran analisis sistem
2	Siklus Hidup Pengembangan Sistem (SDLC)	• Pengenalan SDLC dan Metodologi Pengembangan Sistem	Lucidchart, Microsoft Word	**Whitten & Bentley (2007)** - *Systems Analysis and Design Methods*	Tugas 2: Membuat diagram SDLC
3	Pengumpulan Kebutuhan	• Teknik Pengumpulan Data: Wawancara, Kuesioner, Observasi	Microsoft Word, Google Forms	**Robertson & Robertson (2012)** - *Mastering the Requirements Process*	Tugas 3: Membuat kuesioner sederhana

4	Analisis Kebutuhan	• Analisis Kebutuhan Fungsional dan Non-Fungsional	Microsoft Excel	**Dennis, Wixom, & Tegarden (2015)** - *Systems Analysis and Design with UML*	Tugas 4: Dokumen kebutuhan sistem
5	Pemodelan Sistem dengan UML	• Pengenalan UML: Use Case Diagram	StarUML	**Fowler (2004)** - *UML Distilled*	Tugas 5: Membuat Use Case Diagram
6	Pemodelan Sistem dengan UML (Lanjutan)	• Activity Diagram, Sequence Diagram	StarUML	**Dennis, Wixom, & Tegarden (2015)** - *Systems Analysis and Design with UML*	Tugas 6: Membuat Activity Diagram
7	Desain Arsitektur Sistem	• Desain Arsitektur: Client-Server, Layered Architecture	Lucidchart, Draw.io	**Bass, Clements, & Kazman (2012)** - *Software Architecture in Practice*	Tugas 7: Diagram arsitektur sistem
8	UTS	• Ujian Tengah Semester	-	-	-
9	Desain Database	• Desain Database: ERD, Normalisasi	MySQL Workbench, Lucidchart	**Connolly & Begg (2015)** - *Database Systems: A Practical Approach to Design, Implementation, and Management*	Tugas 8: Membuat ERD

10	Desain Antarmuka Pengguna (UI/UX)	• Prinsip UI/UX, Wireframing, Mockup	Figma, Adobe XD	**Cooper, Reimann, & Cronin (2014)** - *About Face: The Essentials of Interaction Design*	Tugas 9: Membuat mockup antarmuka
11	Desain Logika Sistem	• Desain Logika Bisnis dan Alur Proses	Visual Paradigm, Lucidchart	**Rumbaugh, Jacobson, & Booch (2005)** - *The Unified Modeling Language Reference Manual*	Tugas 10: Diagram alur proses
12	Pemilihan Teknologi	• Pemilihan Teknologi untuk Pengembangan Sistem: Backend, Frontend	Visual Studio Code, GitHub	**Fowler (2004)** - *Patterns of Enterprise Application Architecture*	Tugas 11: Rencana teknologi
13	Pengujian Sistem	• Pengujian Unit, Integrasi, dan Sistem	Selenium, JUnit	**Myers, Sandler, & Badgett (2011)** - *The Art of Software Testing*	Tugas 12: Rencana pengujian sistem
14	Implementasi dan Deployment	• Strategi Implementasi, Deployment, dan Pemeliharaan Sistem	Docker, AWS, GitHub	**Pressman & Maxim (2014)** - *Software Engineering: A Practitioner's Approach*	Tugas 13: Deployment aplikasi

15	Proyek Prototipe	• Pembuatan dan Presentasi Prototipe Sistem	PowerPoint, Figma, StarUML	-	Tugas Akhir: Prototipe Sistem
16	UAS	• Ujian Akhir Semester	-	-	-

Buku Referensi:

1. **Systems Analysis and Design** - Kendall & Kendall (2019)
2. **Systems Analysis and Design Methods** - Whitten & Bentley (2007)
3. **Mastering the Requirements Process** - Robertson & Robertson (2012)
4. **UML Distilled** - Martin Fowler (2004)
5. **Systems Analysis and Design with UML** - Dennis, Wixom, & Tegarden (2015)
6. **Software Architecture in Practice** - Bass, Clements, & Kazman (2012)
7. **Database Systems: A Practical Approach to Design, Implementation, and Management** - Connolly & Begg (2015)
8. **About Face: The Essentials of Interaction Design** - Cooper, Reimann, & Cronin (2014)
9. **The Unified Modeling Language Reference Manual** - Rumbaugh, Jacobson, & Booch (2005)
10. **Patterns of Enterprise Application Architecture** - Martin Fowler (2004)
11. **The Art of Software Testing** - Myers, Sandler, & Badgett (2011)
12. **Software Engineering: A Practitioner's Approach** - Pressman & Maxim (2014)