

Perkuliah dan Pengantar Pemrograman Web

Pertemuan - 01

Matakuliah Pemrograman Web (TIW213)
Semester Genap 2015/2016

Yuan Lukito dan Antonius Rachmat C



Prodi Teknik Informatika
Fakultas Teknologi Informasi
Universitas Kristen Duta Wacana



Perkenalan



- Yuan Lukito, S.Kom., M.Cs
 - <http://lecturer.ukdw.ac.id/yuan>
 - yuanlukito@ti.ukdw.ac.id
- Bidang Minat
 - Machine Learning
 - Pattern Recognition
 - Computer Vision
- Penelitian
 - Gesture-based System Control
 - Indoor Positioning System

Perkenalan

- Antonius Rachmat C, S.Kom., M.Cs
 - <http://lecturer.ukdw.ac.id/anton>
 - anton@ti.ukdw.ac.id
- Bidang Minat
 - Text Mining
 - Algorithm
 - Enterprise Systems
- Penelitian
 - Crowdsourced labelling
 - Sentiment Analysis

Topik Bahasan Hari ini

- Kontrak Perkuliahan Pemrograman Web (TIW213)
 - Deskripsi dan Kompetensi Matakuliah
 - Silabus
 - Sistem dan Aturan Perkuliahan
 - Sistem Penilaian
- Dasar-dasar Pemrograman Web
 - Arsitektur Internet dan Aplikasi Web
 - Metodologi Pengembangan Aplikasi Web
- Demo
 - Demo aplikasi Web Quotes Manager
 - Instalasi dan Konfigurasi Web Server (Xampp)
 - Demo penggunaan Git (Bitbucket) untuk kolaborasi

Deskripsi Matakuliah*

- Matakuliah ini akan memberikan pengetahuan mengenai **arsitektur Internet dan Web**, **arsitektur informasi pada Web** dan kemampuan dasar kepada mahasiswa untuk dapat **merancang**, **mendesain** dan **membuat** aplikasi web menggunakan **basis data** yang dapat berfungsi dengan benar menggunakan teknologi serta **bahasa pemrograman Web standar**.

**Buku Panduan Akademik Kurikulum 2011 Revisi*

Kompetensi Matakuliah

- Setelah mengikuti perkuliahan, mahasiswa diharapkan:
 - Mampu menjelaskan mengenai Arsitektur Internet dan Aplikasi Web
 - Mampu menjelaskan mengenai Web Development Workflow dalam pengembangan Aplikasi Web
 - Mampu merancang dan membuat implementasi sebuah Aplikasi Web statis dan dinamis
 - Mampu membuat implementasi sebuah Web menggunakan HTML, CSS, Javascript, MySQL, dan PHP
 - Mampu menjelaskan penggunaan Frameworks yang umum digunakan seperti jQuery, CodeIgniter, dan Bootstrap

Silabus Matakuliah (1)

Minggu	Materi	Tanggal
01	How Internet Works	26 Jan 2016
02	Hypertext Markup Language (HTML)	2 Feb 2016
03	Cascading Stylesheets (CSS) – Bagian 1	9 Feb 2016
04	Cascading Stylesheets (CSS) – Bagian 2	16 Feb 2016
05	Presentasi Iterasi 1	23 Feb 2016
06	Javascript	1 Maret 2016
07	JQuery	8 Maret 2016
08	TTS	

Silabus Matakuliah* (2)

Minggu	Materi	Tanggal
09	PHP: Hypertext Preprocessor – Bagian 1	5 April 2016
10	PHP: Hypertext Preprocessor – Bagian 2	12 April 2016
11	PHP: Hypertext Preprocessor – Bagian 3	19 April 2016
12	Presentasi Iterasi 2	26 April 2016
13	PHP Frameworks – Bagian 1	3 Mei 2016
14	PHP Frameworks – Bagian 2	10 Mei 2016
15	Presentasi Akhir	17 Mei 2016
16	TAS	

**Rincian topik bahasan setiap pertemuan dapat dilihat di Lecture Notes oo*

Sistem Perkuliahan

- Perkuliahan terdiri dari dua bagian, yaitu Praktikum dan Tatap muka di kelas.
- Jadwal Kelas
 - Kelas A: Selasa, 07:30 – 10:20 WIB (Yuan Lukito, Antonius RC)
 - Kelas B: Selasa, 10:30 – 12:20 WIB (Budi Susanto, Kristian Adi, Bayu Aji)
 - Kelas C: Selasa, 07:30 – 10:20 WIB (Yuan Lukito, Antonius RC)
 - Kelas D: Selasa, 10:30 – 12:20 WIB (Budi Susanto, Kristian Adi, Bayu Aji)
- Jadwal Praktikum
 - Perhatikan, kelas dan praktikum harus sama grupnya!

Sistem Perkuliahan-1 (Kelas)

- Harap tenang, saling menghormati dan menghargai
- Absensi **minimal** 75% (11 pertemuan) untuk bisa mengikuti Test Akhir Semester
- Di awal/akhir pertemuan (10-15 menit) diadakan kuis (quiz)
 - Silahkan membawa laptop, tablet atau smartphone (minimal ada Browser dan fitur koneksi WiFi)
 - **Tidak wajib** mengikuti kuis, tidak ada nilai
 - Materi kuis diambil dari materi minggu sebelumnya atau materi yang baru saja dibahas
- Berhalangan hadir
 - Jika sakit, tugas universitas atau keperluan ‘resmi’ lainnya harap memberikan surat izin minimal seminggu setelahnya (bisa diwakilkan)
 - Jika ada surat izin resmi, dapat meminta TTS dan atau TAS susulan dengan jadwal khusus

Sistem Perkuliahan-2 (Kelas)

- Tidak ada remedi di akhir kuliah
- Tidak ada tugas tambahan apapun di akhir kuliah
- Keterlambatan maksimal 20 menit, lebih dari itu tidak usah masuk
- Surat izin eksepsional untuk TAS dilakukan di hari terakhir kuliah, di luar itu tidak dilayani (salah satu dosen OK & dosen wali)
- **Berbuat curang = E!!**

Sistem Penilaian *

Elemen Penilaian	Bobot (%)
Tugas Project (Kelompok)	
Presentasi Iterasi 1	10
Presentasi Iterasi 2	10
Presentasi Akhir (Opt)	20
Praktikum Lab	35
Test Tengah Semester	20
Test Akhir Semester	25
Total	120

TTS dan TAS

- Diperbolehkan membuka buku atau sumber materi tercetak lainnya (Open book), tidak boleh menggunakan perangkat elektronik (No electronics)
- Materi yang diujikan
 - TTS: Pertemuan 01 – 07
 - TAS: Pertemuan 01 – 14
- Permintaan TTS/TAS susulan hanya dilayani dalam batas waktu paling lambat 1 minggu setelah pelaksanaan TTS/TAS
 - Wajib menunjukkan surat izin resmi
 - Berdiskusi dengan dosen pengampu untuk menentukan jadwal susulan

Tugas Project

- Dikerjakan secara berkelompok
 - Setiap kelompok beranggotakan 4 orang
 - Setiap kelompok akan mendapatkan fasilitas hosting gratis di Server TI
- Topik semester ini: **“Website Showcase hasil karya Mahasiswa FTI UKDW”**
- Spesifikasi Dasar
 - Multi-user & Multi-role
 - Pure PHP tanpa framework, boleh pakai JS library, CSS library
 - HTML 5, CSS 3
 - Harus pakai Database MySQL
 - Harus menggunakan SVN/Git/Mercurial (disarankan: bitbucket)

Tugas Project

- Keterangan Project
 - Presentasi Iterasi 1: Harus sudah sampai HTML + CSS untuk semua halaman yang akan digunakan
 - Presentasi Iterasi 2: Fungsi manajemen user + login harus sudah ada, sudah bisa upload dan menampilkan daftar karya
 - Presentasi Akhir (opsional): sudah ada pencarian, validasi, fitur tambahan



Sistem Praktikum

- Praktikum dilaksanakan 1 (satu) kali seminggu, akan dimulai dari **minggu ke-4** kuliah (16 Feb 2016)
- Syarat mengikuti praktikum adalah:
 - Sudah menyelesaikan HTML dan CSS Course di <https://www.codecademy.com/learn/web>
 - Sudah menyelesaikan HTML5 & CSS3 Fundamentals: Development for Absolute Beginners di https://mva.microsoft.com/en-us/training-courses/html5-css3-fundamentals-development-for-absolute-beginners-14207?l=g3wC2cFfB_800115888
 - Wajib daftar dengan akun email **@ti.ukdw.ac.id**
- Penilaian Praktikum:
 - Di setiap pertemuan terdapat tugas yang dikerjakan
 - Nilai ada di setiap pertemuan, ada 10 pertemuan => 100 point yang akan dikonversi menjadi 35 point kelas

[← Back to Courses](#)

HTML & CSS

Learn how to create websites by structuring and styling your pages with HTML and CSS.



Lessons

0%



Projects

15 available



Quizzes

6 available

START

4.5m+
Enrolled Students

7 Hours
Estimated Course Time

Beginner
Required Technical Level

1 HTML - 5

2 CSS Styling - 5

3 CSS Layout - 5

4 Javascript - 5

5 JQuery - 5

6 Project 1 - 20

**MATERI
PRAKTIKUM**

7 PHP 1 - 10

8 PHP 2 - 10

9 PHP 3 - 10

10 Project 2 - 25

PRAKTIKUM

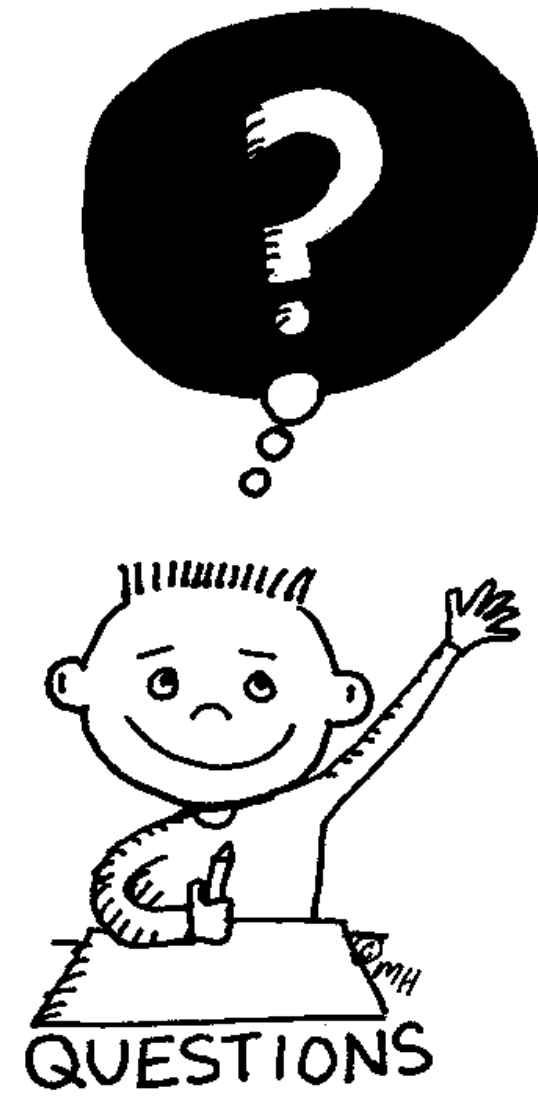
Nilai Praktikum

Referensi Acuan

- **A Practical Guide to Information Architecture** (Practical Guide Series), 2010, ISBN: 978-0956174062
- **Programming World Wide Web 6th Edition**, 2010, ISBN: 978-0132130813
- **Head First Series:**
 - HTML & CSS
 - PHP
 - Javascript
 - AJAX

Referensi Online

- W3C Web Design & Applications Standards
<http://www.w3.org/standards/webdesign/>
- CodeIgniter User Guide
http://codeigniter.com/user_guide/



Internet dan WWW

- Network
 - **kumpulan komputer** dan perangkat keras lainnya yang **saling terhubung** oleh sebuah **saluran komunikasi**, yang memungkinkan terjadinya pertukaran **informasi** dan **sumber daya**
- Intranet, Extranet, Internetwork?
 - Internet adalah Internetwork terbesar di dunia
- Internet
 - a massive network of networks, a networking infrastructure. It connects millions of computers together globally, forming a network in which any computer can communicate with any other computer as long as they are both connected to the Internet
- World wide web
 - the universe of network-accessible information, the embodiment of human knowledge (W3C)
 - a global information medium which users can read and write via computers connected to the **Internet**
 - a way of accessing information over the medium of the Internet. It is an information-sharing model that is built on top of the Internet

Aplikasi Web

- A software application that runs on a **remote server**. In most cases, **Web browsers** are used to access Web applications, over a network, such as the **Internet**
- Pada umumnya aplikasi web menggunakan basis data sebagai tempat penyimpanan data
- Kelebihan aplikasi web:
 - Mudah diupdate, hanya perlu mengupdate server saja
 - Hanya membutuhkan sedikit sumber daya komputer
 - Kompatibilitas, dapat diakses menggunakan sistem operasi yang ada (Windows, Mac, Linux, ...)
 -
- Kelemahan aplikasi web:
 - Tampilan yang berbeda dengan aplikasi “native”
 - Implementasi Browser dapat mempengaruhi (butuh standar)
 - Masalah privacy
 - Membutuhkan koneksi (hanya bekerja dalam kondisi online)
 -

Aplikasi Web

- Client – Server
 - Server: Web Server (Http Server)
 - Client: Browser (Firefox, Safari, Chrome, IE, Opera, ...)
 - Web Server: Apache HTTP Server, Apache Tomcat, Nginx, IIS, ...
- Client dan Server berkomunikasi dalam suatu aturan tertentu. Aturan = **protokol** (protocols)
- WWW menggunakan protokol HTTP (Hypertext Transfer Protocol)
 - Browser dan Web Server berkomunikasi dalam protokol HTTP
 - Versi HTTP yang banyak digunakan saat ini adalah HTTP 1.0 dan HTTP 1.1 (terbaru)

TCP/IP

Transmission Control Protocol / Internet Protocol

Application Layer	Application Layer
Presentation Layer	
Session Layer	
Transport Layer	Transport Layer
Network Layer	Internet Layer
Datalink Layer	Network Access Layer
Physical Layer	

7 Layers OSI Model

4 Layers TCP/IP Model

TCP/IP

Layer	Protocols
Application	HTTP , Telnet, FTP, TFTP, SNMP, DNS, SMTP, X Windows, other application protocols
Transport	TCP, UDP, RTP
Internet	IP, ICMP, ARP, RARP
Network interface	Ethernet, Token Ring, FDDI, X.25, Frame Relay, RS-232, v.35

Protocol web: HTTP

- **Hypertext** Transport Protocol (RFC 1945)
 - By Tim Berners-Lee, 1989
- Protocol that used to communicate between web browsers and web servers
- Using TCP port **80** (default)
- This protocol supports *hypermedia* files
- HTTP 1.0 becomes 1.1 by IETF (RFC 2616)
- HTTP is “**stateless**”
 - No information that retain
 - Solution? **Cookies & Session**

HTTP

- HTTP is **request – response**:
 - HTTP client (**user agent**) request s to HTTP server and Server will response
- The basic different of HTTP/1.1 and HTTP/1.0 is their **persistent connection**
- HTTP/1.0 is **not** using persistent connection
 - Header = Connection: close
- HTTP/1.1 is using persistent connection
 - Header = Connection: Keep-Alive
 - But client can set header manually (header = Connection: close).

Web Browser



Client

Request









Response

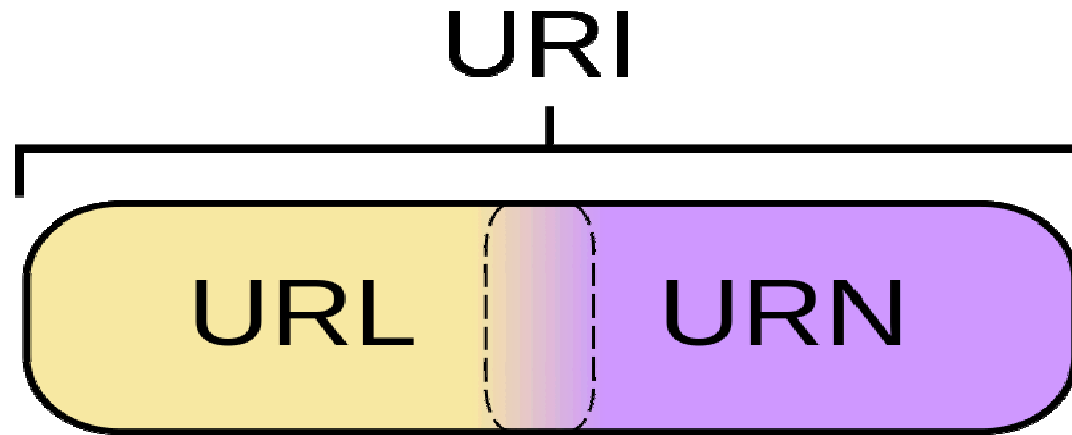
Web Server



Server

<div> <div>🔍 📱</div> <div> <div>Elements</div> <div>Network</div> <div>Sources</div> <div>Timeline</div> <div>Profiles</div> <div>Resources</div> <div>Audits</div> <div>Console</div> </div> </div>						
<div> <div>●</div> <div>🚫</div> <div>🔧</div> <div>☰</div> <div> <input type="checkbox"/> Preserve log <input type="checkbox"/> Disable cache </div> </div>						
Name Path	Method	Status Text	Type	Initiator	Size Content	
 detik.com	GET	301 Moved ...	text/ht...	Other	287 B	0 B
 www.detik.com	GET	200 OK	text/ht...	http://detik.co... Redirect	28.3 KB	103 KB
 urchin.js	GET	200 OK	applica...	www.detik.co... Parser	7.7 KB	21.7 KB
 detik_frame_2013.css?201... /css	GET	200 OK	text/css	www.detik.co... Parser	2.4 KB	7.3 KB
 detik.footer_2013.css?201... /css	GET	200 OK	text/css	www.detik.co... Parser	1.1 KB	1.9 KB
 detik.topbar_2013.css?201... /css	GET	200 OK	text/css	www.detik.co... Parser	3.4 KB	12.0 KB

Membuka <http://www.detik.com>
(dilihat menggunakan Chrome Developer Tools)



URI : Uniform Resource Identifier, ex:
<https://www.ukdw.ac.id/resource.txt>

URL : Uniform Resource Locator, ex:
<http://www.ukdw.ac.id>

URN : Uniform Resource Name, ex:
<urn:isbn:0451450523>

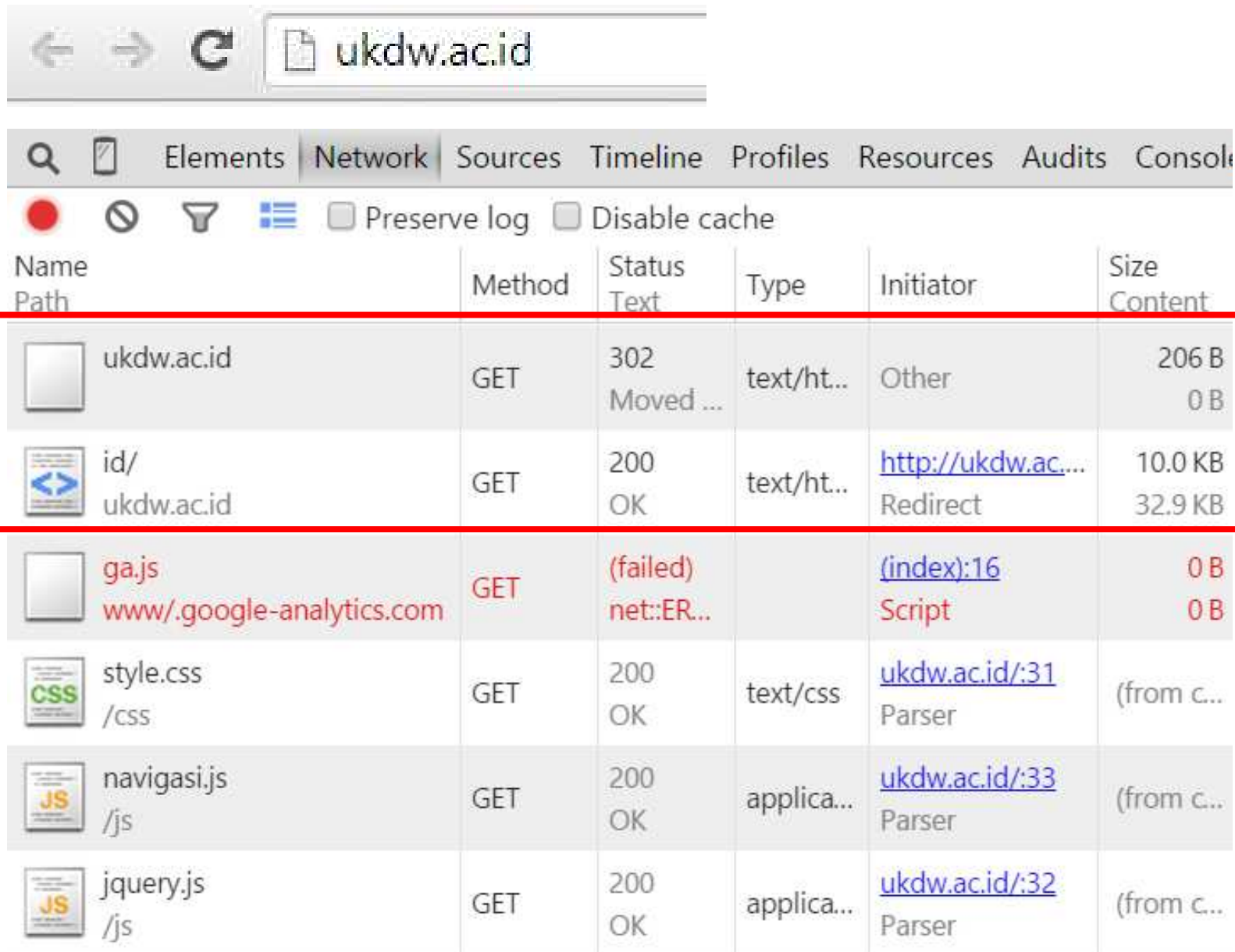
Format URL

- URL tersusun dari beberapa komponen berikut ini:
 - Scheme name (umumnya protokol)
 - Colon + // (://)
 - Host (domain name, IP Address, ...)
 - Colon + port number (Optional)
 - Full path of the resource
- Contoh:
 - `http://repo.ukdw.ac.id/iso/ubuntu/14.10/ubuntu-14.10-desktop-amd64.iso`
 - `http://ti.ukdw.ac.id:8888/knastik`
 - `mailto://anton@ti.ukdw.ac.id`
 - `ftp://anton:12345678@ti.ukdw.ac.id:21`







HTTP Methods

- **GET** - Fetch a document
 - Ex: URL variabel
- **POST** - Execute the document, using the data in body document
 - Ex: form submit
- **HEAD** - Fetch just the header of the document
 - Ex: date modified
- **PUT** - Store a new document on the server
 - Ex: upload using WebDAV
- **DELETE** - Remove a document from the server

GET http://ukdw.ac.id



The screenshot shows a web browser's developer tools network tab. The address bar at the top displays 'ukdw.ac.id'. Below it, the network tab is active, showing a list of requests. The first two requests are highlighted with a red box: a 302 Moved request to 'ukdw.ac.id' and a 200 OK request to 'id/ukdw.ac.id'. The first request is a GET request with a status of 302 Moved and a size of 206 B. The second request is a GET request with a status of 200 OK and a size of 10.0 KB and 32.9 KB. The third request is a failed GET request to 'ga.js' with a status of (failed) net:ERR... and a size of 0 B. The fourth request is a successful GET request to 'style.css' with a status of 200 OK and a size of (from c...). The fifth request is a successful GET request to 'navigasi.js' with a status of 200 OK and a size of (from c...). The sixth request is a successful GET request to 'jquery.js' with a status of 200 OK and a size of (from c...).

Name Path	Method	Status Text	Type	Initiator	Size Content
 ukdw.ac.id	GET	302 Moved ...	text/ht...	Other	206 B 0 B
 id/ ukdw.ac.id	GET	200 OK	text/ht...	http://ukdw.ac... Redirect	10.0 KB 32.9 KB
 ga.js www/.google-analytics.com	GET	(failed) net:ER...		(index):16 Script	0 B 0 B
 style.css /css	GET	200 OK	text/css	ukdw.ac.id/:31 Parser	(from c...
 navigasi.js /js	GET	200 OK	applica...	ukdw.ac.id/:33 Parser	(from c...
 jquery.js /js	GET	200 OK	applica...	ukdw.ac.id/:32 Parser	(from c...



Preview

Response

Cookies

Timing

Remote Address: 222.124.22.21:80

Request URL: http://ukdw.ac.id/id/

Request Method: GET

Status Code: 200 OK

▼ Request Headers

[view source](#)

Accept: text/html,application/xhtml+xml,application/xml;q=0.9

Accept-Encoding: gzip, deflate, sdch

Accept-Language: en-US,en;q=0.8,id;q=0.6

Connection: keep-alive

Cookie: ukdw_session=a%3A16%3A%7Bs%3A10%3A%22session_id%22%3B%3Bs%3A10%3A%22ip_address%22%3B%3A12%3A%22202.67.41.51%22%3B%3A2F5.0+%28Windows+NT+6.3%3B+WOW64%29+AppleWebKit%2F53%22%3B%3A4%3A%22lang%22%3B%3A2%3A%22ID%22%3B%3A7%3A%22id_user%22%3A22%3B%3A4%3A%22yuan%22%3B%3A6%3A%22status%22%3B%3A5%3A%22nama%22%3B%3A11%3A%22Yuan+Lukito%22%3B%3A7%3A%22id_unit%22%3B%3A1%3A%221%22%3B%3A20%3A%22dua%20ionis%20masa%20kol

GET <http://ukdw.ac.id/id> - as Text

```
× Headers Preview Response Cookies Timing
1 <!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN" "http://
2
3 <html>
4
5 <head>
6 <script type="text/javascript">
7
8 var _gaq = _gaq || [];
9 _gaq.push(['_setAccount', 'UA-5060237-21']);
10 _gaq.push(['_setDomainName', '.ukdw.ac.id']);
11 _gaq.push(['_trackPageview']);
12
13 (function() {
14 var ga = document.createElement('script'); ga.type = 'text/avas
15 ga.src = ('https:' == document.location.protocol ? 'https://ssl/
16 var s = document.getElementsByTagName('script')[0]; s.parentNode
17 })();
18
19 </script>
```

Response dari request GET <http://ukdw.ac.id/id> - as text



Request POST

Login Portal UKDW

ID :

Password :

MASUK

Untuk mahasiswa, gunakan NIM dan password SSAT anda. Untuk dosen, gunakan username dan password email.



Headers

Preview

Response

Cookies

Timing

Remote Address: 222.124.22.21:80

Request URL: http://ukdw.ac.id/id/home/do_login

Request Method: POST

Status Code: 🟡 302 Found

HTTP Response status

Response Code	HTTP Operation	Response Body Contents	Description
200	GET, PUT, DELETE	Resource	No error, operation successful.
201 Created	POST	Resource that was created	Successful creation of a resource.
202 Accepted	POST, PUT, DELETE	N/A	The request was received.
204 No Content	GET, PUT, DELETE	N/A	The request was processed successfully, but no response body is needed.
301 Moved Permanently	GET	XHTML with link	Resource has moved.
303 See Other	GET	XHTML with link	Redirection.
304 Not Modified	conditional GET	N/A	Resource has not been modified.
400 Bad Request	GET, POST, PUT, DELETE	Error Message	Malformed syntax or a bad query.
401 Unauthorized	GET, POST, PUT, DELETE	Error Message	Action requires user authentication.
403 Forbidden	GET, POST, PUT, DELETE	Error Message	Authentication failure or invalid Application ID.
404 Not Found	GET, POST, PUT, DELETE	Error Message	Resource not found.
405 Not Allowed	GET, POST, PUT, DELETE	Error Message	Method not allowed on resource.

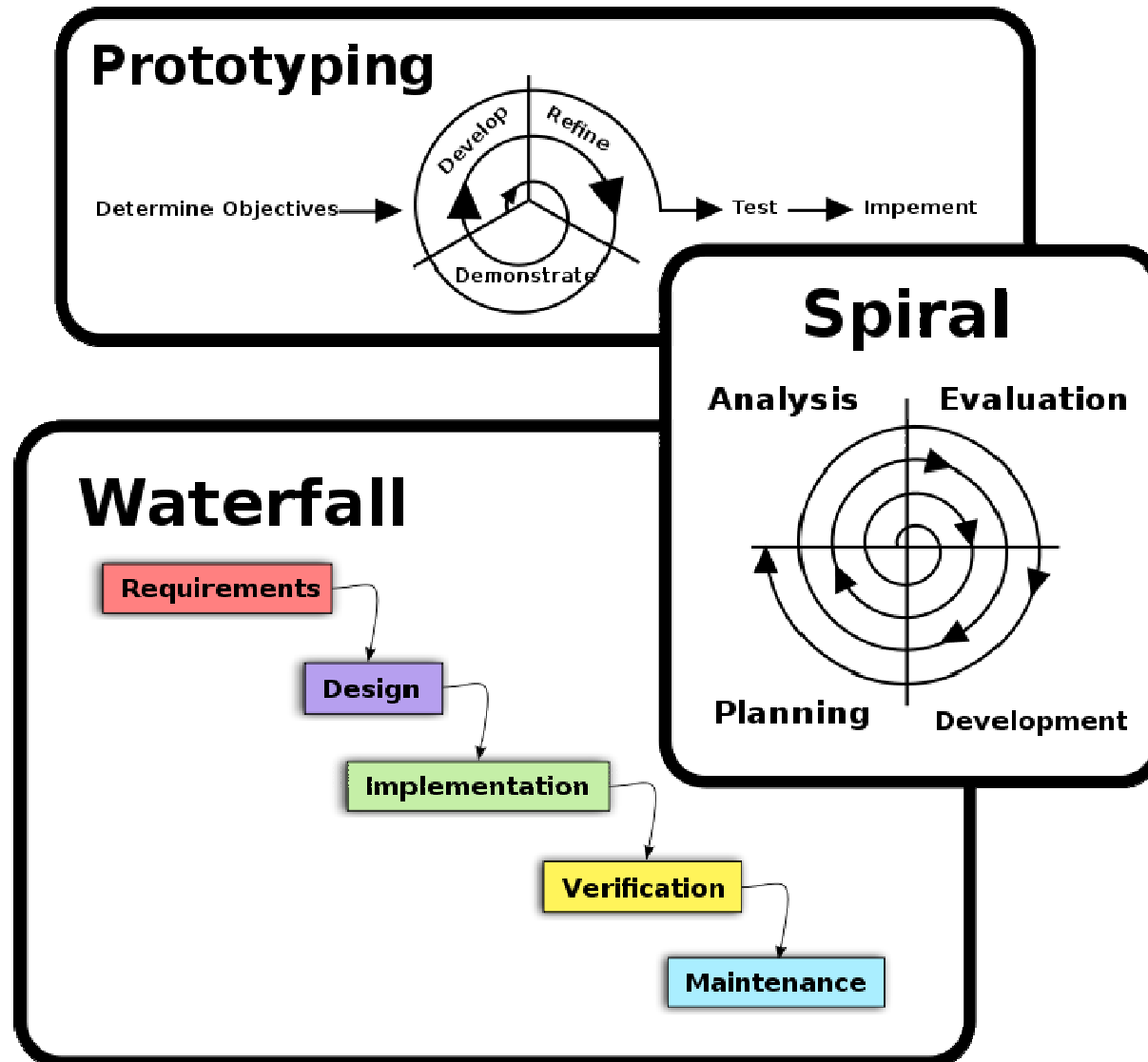
HTTP Response status (2)

406 Not Acceptable	GET	Error Message	Requested representation not available for the resource.
408 Request Timeout	GET, POST	Error Message	Request has timed out.
409 Resource Conflict	PUT, PUT, DELETE	Error Message	State of the resource doesn't permit request.
410 Gone	GET, PUT	Error Message	The URI used to refer to a resource.
411 Length Required	POST, PUT	Error Message	The server needs to know the size of the entity body and it should be specified in the Content Length header.
412 Precondition failed	GET	Error Message	Operation not completed because preconditions were not met.
413 Request Entity Too Large	POST, PUT	Error Message	The representation was too large for the server to handle.
414 Request URI too long	POST, PUT	Error Message	The URI has more than 2k characters.
415 Unsupported Type	POST, PUT	Error Message	Representation not supported for the resource.
416 Requested Range Not Satisfiable	GET	Error Message	Requested range not satisfiable.
500 Server Error	GET, POST, PUT	Error Message	Internal server error.
501 Not Implemented	POST, PUT, DELETE	Error Message	Requested HTTP operation not supported.
502 Bad Gateway	GET, POST, PUT, DELETE	Error Message	Backend service failure (data store failure).
505	GET	Error Message	HTTP version not supported.

Terminologi

- Web → The Web, World Wide Web
 - Internet ≠ Web
- Homepage
 - Index page
 - Halaman web yang pertama kali terbuka (halaman awal, muka, beranda, home,)
 - Website pribadi biasa juga disebut sebagai homepage
- <http://lecturer.ukdw.ac.id/>
 - Bisa juga diakses dengan URL <http://lecturer.ukdw.ac.id/index.html>
 - Tergantung dari konfigurasi Web Server
 - Pada umumnya: index.htm, index.html, index.php, index.jsp,)

Metodologi Pengembangan



Development Tools

- Web Server
 - Apache Http Server, Apache Tomcat, IIS, Nginx, Google Web Server (GWS), Cherokee,
- Database Server
 - MySQL, PostgreSQL, Oracle, Maria DB, SQL Server, ...
- Text Editor
 - SublimeText, Bracket, Atom, Dreamweaver, ...
- Revision control (version control, source control)
 - Git, CVS, Mercurial, SVN, TFS, ...
- Prototyping/Mockup/Wireframe
 - Balsamiq, Pencil,
- Graphics design
 - Photoshop, Corel Draw,



Profile Name

245 Blackfriars Road
Ludgate House
London, SE1 9UY

Email: firstname@surname.com

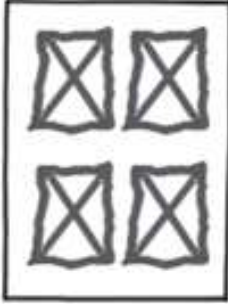
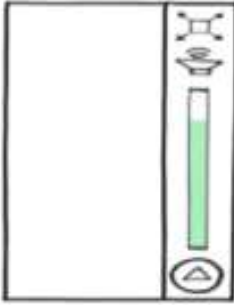
Telephone: 0207 955 3705

Categories

Lorem ipsum
dolor sit
amet
dolor sit

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Morbi consectetur nibh feugiat urna elementum facilisis. Nullam diam arcu, lobortis ut tincidunt vel, suscipit quis lectus. Praesent interdum sapien in nisi tempor vestibulum. Mauris nec mauris sapien. Nam laoreet nisi non magna laculis vitae convallis lorem porttitor.

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Morbi consectetur nibh feugiat urna elementum facilisis. Nullam diam arcu, lobortis ut tincidunt vel, suscipit quis lectus. Praesent interdum sapien in nisi tempor vestibulum. Mauris nec mauris



Attachments

-  [Lorem ipsum dolor sit amet.](#)
-  [Lorem ipsum dolor sit amet.](#)
-  [Lorem ipsum dolor sit amet.](#)
-  [Lorem ipsum dolor sit amet.](#)

Server side's elements

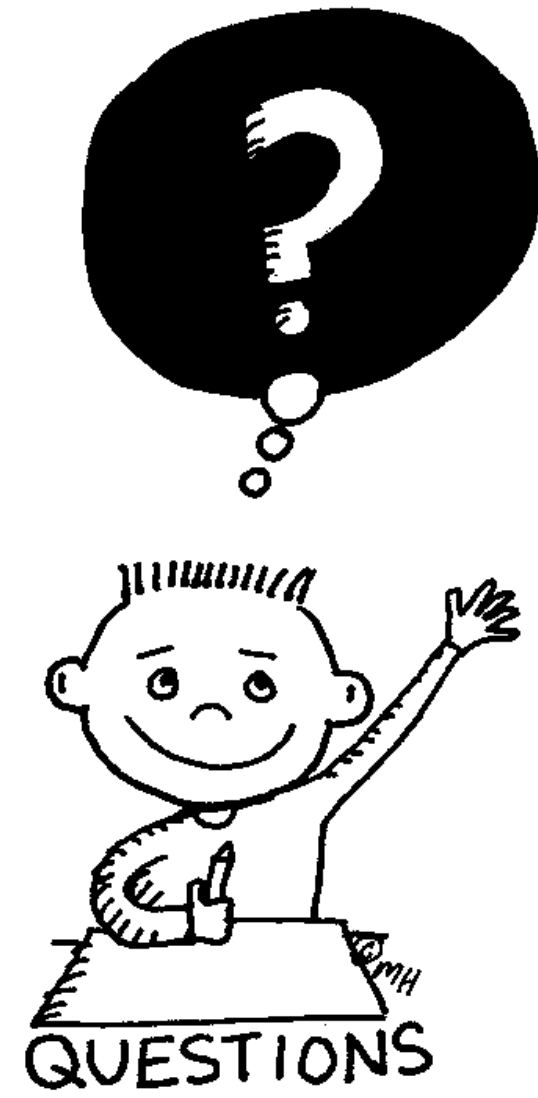
- Server hardware
- Web servers software
 - Apache, Xitami, IIS, GlassFish
- Server side programming language
 - PHP, JSP, ASP, ASP.NET, Ruby on Rails, Python, Perl, Cold Fusion
- MIME configuration
- Utility Programming Tools
- Database Server
 - MySQL, SQLServer, Oracle

Client side's elements

- Client hardware
- Web browsers
 - MIME config
- Language: HTML / XML / XHTML
- Client side scripting: Javascript / VBScript
- MIME Configuration
- Design: CSS
- Interactive software:
 - Flash player
 - Java Applet
- Client software:
 - ActiveX / Plugin: program yg terintegrasi dgn browser
 - Helper: program yg terinstall di client

LAMP Stack

- LAMP
 - Sistem operasi Linux
 - Web Server Apache
 - Database MySQL
 - Scripting language PHP
- Paket/bundle yang bisa dipakai:
 - Xampp (<https://www.apachefriends.org/index.html>)
 - Wampp (<http://www.wampserver.com/en/>)
 - MAMP (<http://www.mamp.info/en/>)
 - Bitnami, Zend Server
- Perkuliahan akan menggunakan Xampp sebagai contoh/demo



My Quotes

All Quotes

+ New Quote

Search quote:

Search

All Quotes (7 quotes)

Stay hungry, stay foolish....

 Steve Jobs

Edit

Delete

Simple things should be simple, complex things should be possible

 Alan Kay

Edit

Delete

DEMO APLIKASI WEB

Quote Manager

https://www.apachefriends.org/index.html

Apache Friends

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Add-ons

Hosting

Community

About

Search..

Search

EN



XAMPP Apache + MySQL + PHP + Perl

What is XAMPP?

XAMPP is the most popular PHP development environment

XAMPP is a completely free, easy to install Apache distribution containing MySQL, PHP, and Perl. The XAMPP open source package has been set up to be incredibly easy to install and to use.

Why use XAMPP?

- The most popular PHP dev package
- For Windows, Mac OS X & Linux
- Easy installation and configuration
- Completely free of charge

Download

[Click here for other versions](#)



XAMPP for **Windows**
v5.6.3 (PHP 5.6.3)



XAMPP for **Linux**
v5.6.3 (PHP 5.6.3)



XAMPP for **OS X**
v5.6.3 (PHP 5.6.3)

Demo Xampp

Instalasi dan konfigurasi

Web Development Workflow

- Umumnya pengembangan sebuah aplikasi web dilakukan secara kelompok/tim
 - Misal: designer, front-end, back-end, manager, ...
- Beberapa hal yang perlu diperhatikan dalam kerja tim
 - Komunikasi (forum diskusi, messenger, bug tracking, ...)
 - Sinkronisasi kode program, design, issue, ...
 - Pembagian tugas dan alur kerja yang jelas
- Mulailah berlatih menggunakan version control untuk pengerjaan tugas project
 - Bitbucket: <http://www.bitbucket.org>
 - SourceTree: <https://www.sourcetreeapp.com/>

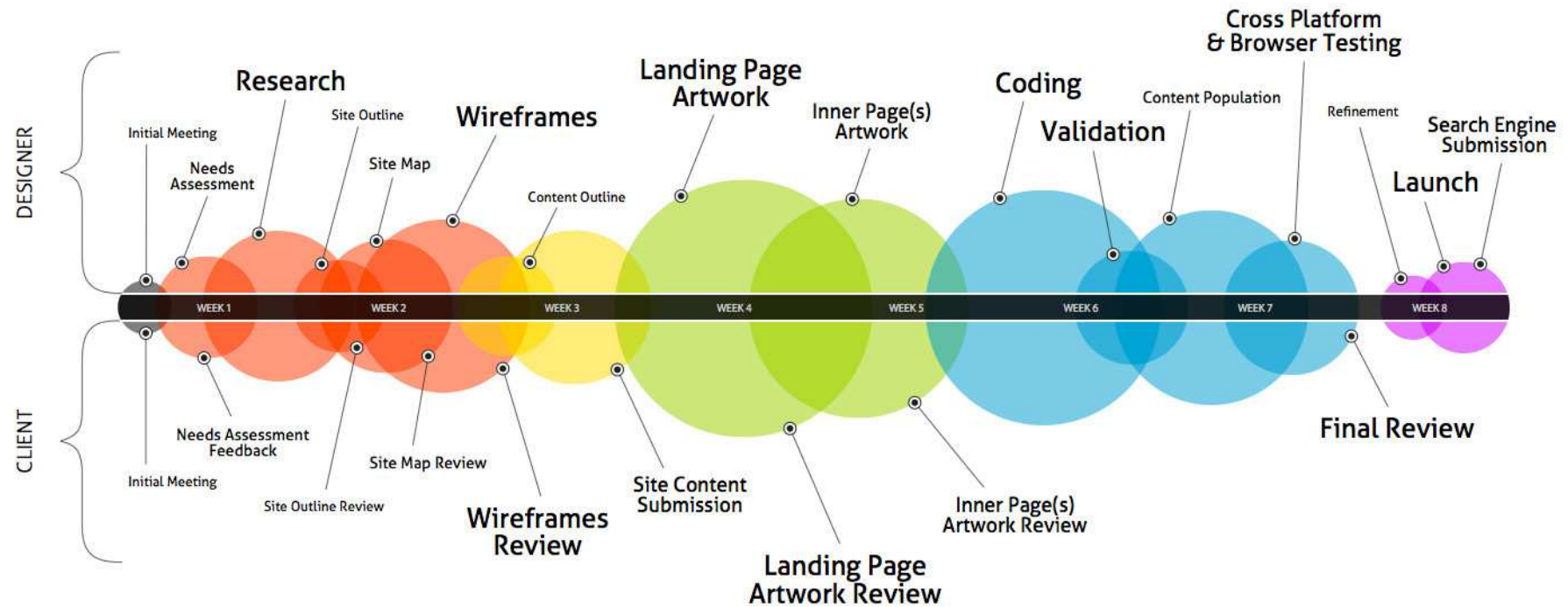
Workflow

for Website Development



A Web Site Designed

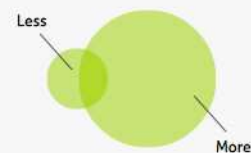
MILESTONES, INVOLVEMENT, IMPORTANCE & TIMELINE



MILESTONES



INVOLVEMENT



IMPORTANCE

Average
Greater

PHASE



A Web Site Designed was created by John Furness of Simple Square. © 2011 - All rights reserved.

<http://stackoverflow.com/questions/13995892/what-is-a-good-well-organized-web-development-workflow-from-start-planning-to>

Web Development Workflow

- Planning
 - Tentukan apa tujuan utama dari aplikasi web yang akan dibuat
 - Siapa yang akan menjadi penggunanya
- Sitemap
 - Buatlah daftar semua halaman yang dibutuhkan
- Wireframe
 - Tentukan layout dan design dari halaman web yang akan dibuat
 - Color scheme, items placement, ...
- Artwork
 - Logo/branding, images, icons, ...

Web Development Workflow

- Coding
 - Implementasi antar muka (front-end), business logic (back-end), database, ...
- Content population
 - Mulai mengisi artikel, tulisan, daftar, tabel, ...
- Testing
 - Pengujian sistem
- Production
 - Menaruh aplikasi web di web server sehingga dapat diakses oleh umum

Contoh Web-dev Workflow

- Pilihlah salah satu anggota menjadi project leader
- Masing-masing anggota tim mendaftar account di bitbucket
 - Gunakan email @ti.ukdw.ac.id sehingga mendapat fasilitas tambahan (academic)
- Project leader membuat repository private di bitbucket, kemudian mendaftarkan anggota kelompoknya ke repository tersebut
 - Pull: mengambil versi terbaru dari repository
 - Commit dan Push: menyimpan perubahan terbaru ke repository
- Setiap anggota membuat implementasi aplikasi web, kemudian melakukan commit ke repository

Perlu diperhatikan

- Selalu lakukan Pull (ambil versi terbaru) sebelum anda melakukan Commit.
 - Menghindari Conflict
- Pastikan anda mengisi Commit message dengan informasi yang jelas tentang apa saja yang sudah anda ubah/tambahkan.
- Usahakan ada pembagian tugas yang jelas, bagi/potong setiap pekerjaan menjadi tugas-tugas yang lebih kecil.
- Mulailah mencoba dari sekarang
 - Mulai pertemuan ke-03 kami akan melakukan pengecekan rutin ke repository masing-masing kelompok
- Tambahkan account kami ke repository anda
 - Yuan Lukito (yuanlukito@ti.ukdw.ac.id)
 - Antonius Rachmat C (anton@ti.ukdw.ac.id)

Dashboard

Overview Pull requests Issues Snippets



Your dashboard, improved

We've re-organized your dashboard and added smarter filters so you can quickly get to the repositories that matter to you. We've also introduced projects for Bitbucket teams, making it easier to organize repositories. [Learn more about projects](#)

Create a team

Ok, got it

FILTER BY: Owner ▾ Project ▾ Watching

🔍 Find repositories

Repository

Project

Owner



kuiz

Yuan Lukito



Demo Bitbucket

Studi kasus: tim dengan anggota **2 orang**



About SourceTree

Copyright Atlassian 2012-2016. All Rights Reserved.
Version 1.7.0.32509

SourceTree

File Edit View Repository Actions Tools Help

Clone / New Commit Checkout Discard Stash Add Remove Add/Remove Fetch Pull Push Branch Merge Tag Git Flow Terminal

kuiz C:\xampp\htdocs\kuiz
1 194 | master

kuiz X

- File Status
 - Working Copy
- Branches
 - master
- Tags
- Remotes
 - origin

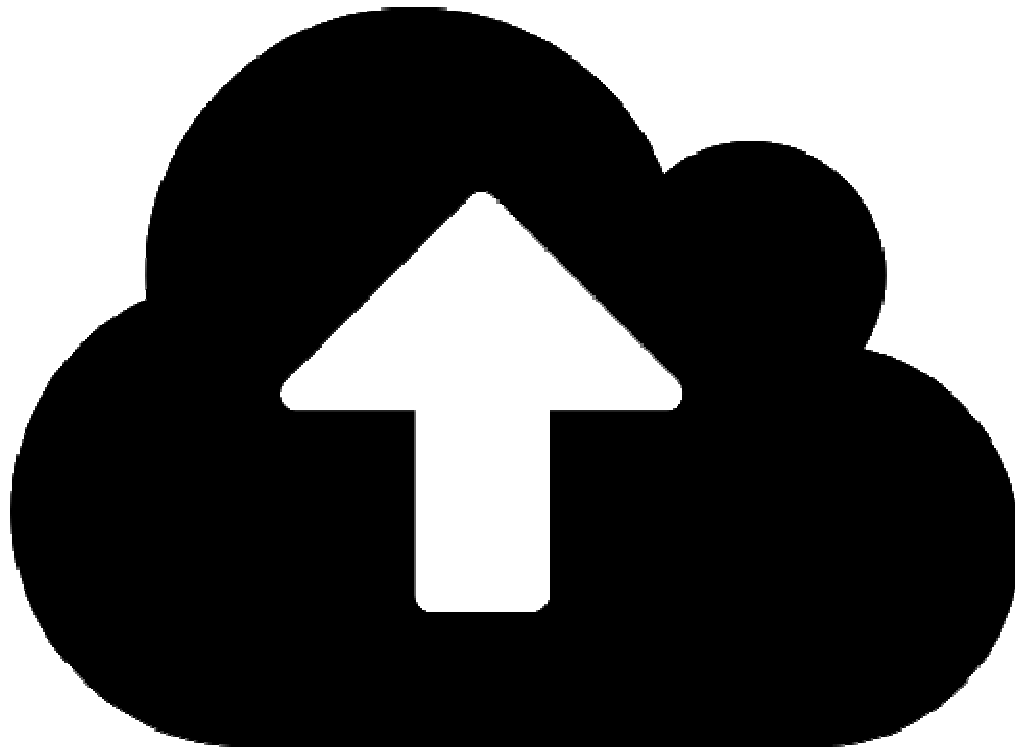
Pending files, sorted by file status

☒ Staged files

☐ Unstaged files

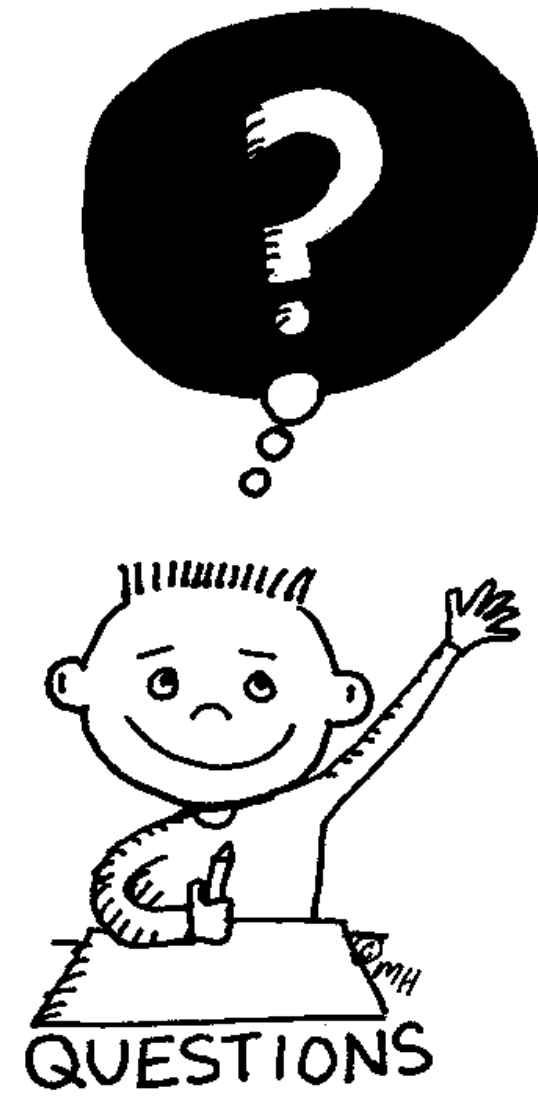
- application/config/database.php
- user_guide/installation/upgrade_163.html
- user_guide/installation/upgrade_170.html
- user_guide/installation/upgrade_171.html
- user_guide/installation/upgrade_172.html
- user_guide/installation/upgrade_200.html

76	76
77	77
78	78
79	-
80	-
	79
	80
81	81
82	82
83	83



Demo Upload ke Hosting

Studi kasus: upload ke server lecturer



```
<!DOCTYPE html>
<html>
  <head>
    <title> Pemrograman Web (Genap 2014/2015) </title>
  </head>
  <body>
    <h1>Pemrograman Web</h1>
    <p>Matakuliah ini membahas mengenai .....</p>
  </body>
</html>
```

Pertemuan 02

HTML (Hypertext Markup Language)