



Introduction to Web Development

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Apa itu Internet?

- Singkatan dari Interconnected Network
- Sebagai jaringan komunikasi global yang menghubungkan komputer dan jaringan komputer di seluruh dunia
- Transmission Control Protocol atau Internet Protocol Suite (disingkat sebagai TCP/IP) digunakan sebagai standar teknologi pendukung internet yang dipakai secara global



Apa itu Website?

adalah koleksi dari

- Web pages
- Dapat diakses publik
- Dapat berupa teks, gambar, video, atau media lainnya



Thanks to Tim Berners-Lee

- Ilmuan Inggris
- Menemukan World Wide Web (WWW) pada tahun 1989

World Wide Web

The WorldWideWeb (W3) is a wide-area [hypermedia](#) information retrieval initiative aiming to give universal access to a large universe of documents.

Everything there is online about W3 is linked directly or indirectly to this document, including an [executive summary](#) of the project, [Mailing lists](#) , [Policy](#) , November's [W3 news](#) , [Frequently Asked Questions](#) .

[What's out there?](#)

Pointers to the world's online information, [subjects](#) , [W3 servers](#), etc.

[Help](#)

on the browser you are using

[Software Products](#)

A list of W3 project components and their current state. (e.g. [Line Mode](#) ,X11 [Viola](#) , [NeXTStep](#) , [Servers](#) , [Tools](#) , [Mail robot](#) , [Library](#))

[Technical](#)

Details of protocols, formats, program internals etc

[Bibliography](#)

Paper documentation on W3 and references.

[People](#)

A list of some people involved in the project.

[History](#)

A summary of the history of the project.

[How can I help ?](#)

If you would like to support the web..

[Getting code](#)

Getting the code by [anonymous FTP](#) , etc.

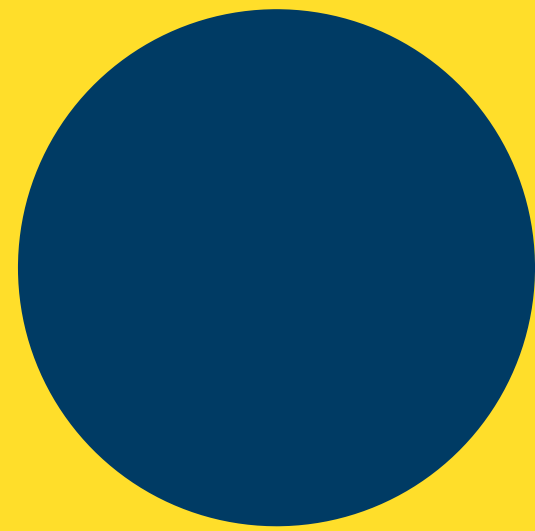




Web Server

Sebuah *software* yang dapat menghubungkan sebuah komputer dengan komputer lain





HTTP Server

HTTP Server merupakan sebuah *software* yang dapat menerima transaksi dari *HyperText Transfer Protocol* dalam suatu website atau biasa disebut dengan “HTTP Server”.





DNS Server

Setiap perangkat punya IP Address
(104.28.20.105)

Domain Name System (DNS) dapat
mengubah/mengarahkan website
melalui sebuah nama domain.

www.dibimbing.id

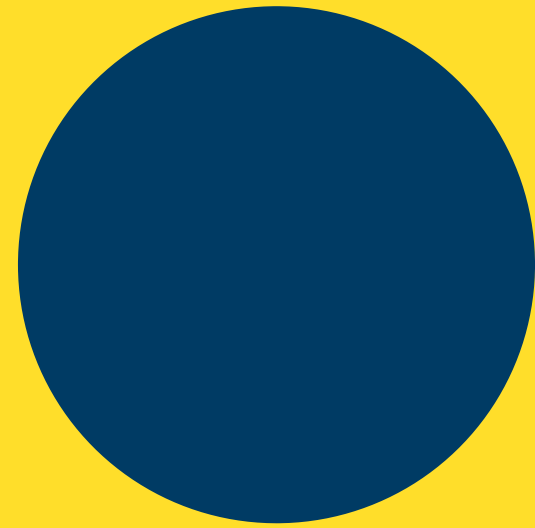




Client

Perangkat yang meminta (*request*) suatu layanan tertentu ke suatu *server* disebut dengan *client*.





Server-side dan Client-side

- Client side: semua proses terjadi di sisi pengguna
- Server side: semua proses yang terjadi dilakukan di sisi server



Anatomi Website

HTML, CSS, Javascript

Apa itu HTML?

HTML THE SKELETON

HTML provides names (tags) to describe different types of content (elements) on your website —for example: `<header>`, `<link>`, `<div>`.

This allows your browser understand what it is reading and how to render it. While your browser can render HTML by itself, you can make it dynamic and beautiful using Javascript & CSS. So think of HTML as a skeleton that comes to life with Javascript & CSS.



Anatomi Website

HTML, CSS, Javascript

Apa itu CSS?

CSS THE SKIN

CSS will make our site presentable and enhance the user experience for our site visitors.

CSS allows you to add color, modify sizes, embed background images, and make your design responsive for desktop & mobile viewing alike.

Either you will aspire to be a CSS wizard, or a Javascript Ninja, a thorough understanding of HTML is a must.



Anatomi Website

HTML, CSS, Javascript

Apa itu Javascript?

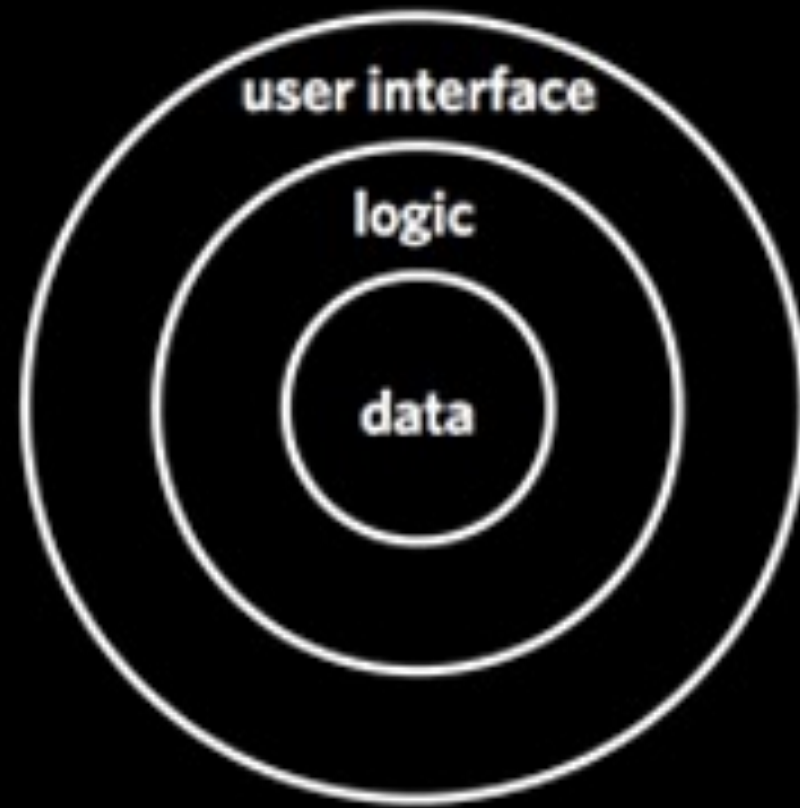
JS THE BRAINS

Javascript will provide the brains and muscles of the website allowing it to interact and re-render HTML content based on user input or data from a server.

This makes your HTML dynamic rather than static. Games and interactive applications can be built upon HTML thanks to the power of Javascript.



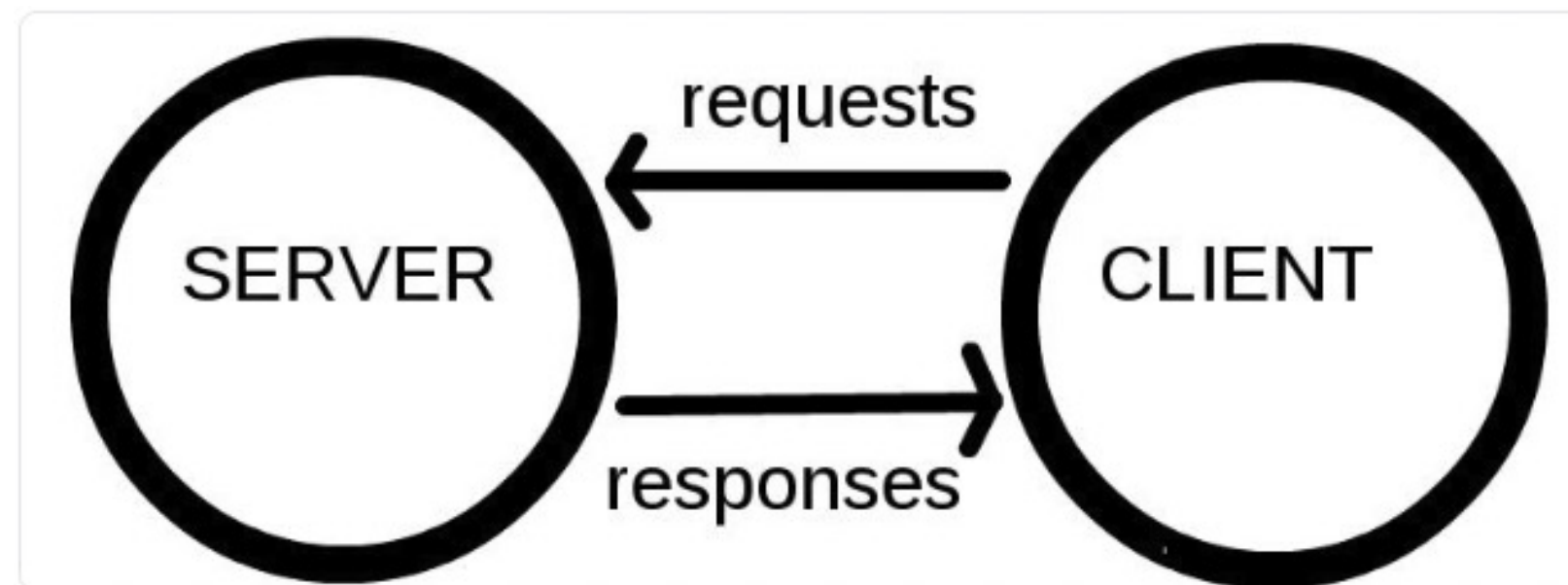
Your program

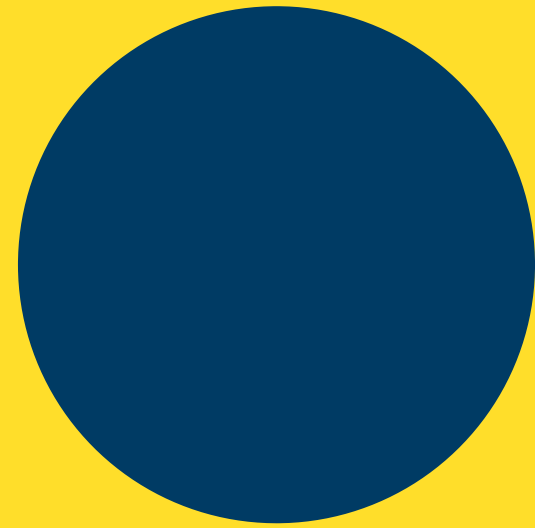


How users see it



Bagaimana Web Bekerja?





Learning Path Web Development

1. Algorithm is the root of learning Computer Science
2. Learn Front End side (HTML, CSS, JavaScript)
3. Knowing about version control to manage your codes (Git)
4. Learn Back End side (Node.js, API concept)
5. Learn how database work (MySQL)
6. Start using Framework (React)
7. Have knowledge about IT Security will be helpful

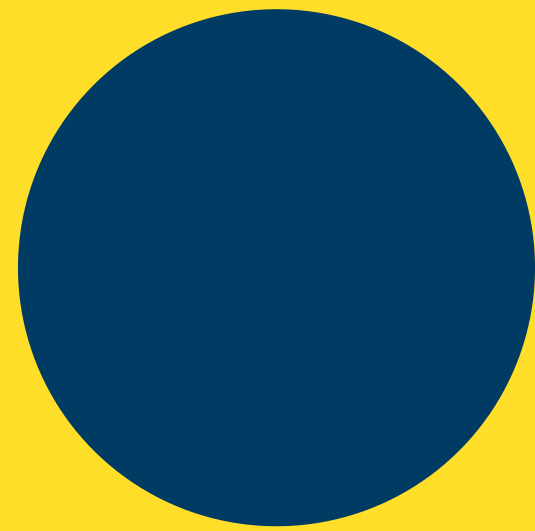




Hal apa saja yang harus dimiliki seorang programmer?

1. Berkomunitas, untuk mensupport pembelajaranmu.
2. Menguasai Bahasa inggris basic
3. Trus tingkatkan kemampuan membuat algoritma dan problem solving dengan mengikuti koding test: Leetcode, Hackerrank, dll
4. Ketahui cara mencari jawaban atas masalahmu lewat google, (StackOverflow)
5. Be Curious, keep learning!





Opsi Karir Web Development

1. Front End Engineer
2. Back End Engineer
3. DevOps Engineer
4. Site Reliability Engineer (SRE)
5. Quality Assurance (QA) Engineer
6. App Developer (Android, iOS)
7. Database Administrator
8. System Analyst



Menurut Biro Statistik Tenaga Kerja,

kebutuhan web developer diperkirakan meningkat hingga 8% sampai tahun 2029 atau 4% lebih cepat daripada pekerjaan lain.



< Swipe

Yup, karena skill web development ini bisa dibilang gak gampang, makanya gajinya juga gak kaleng-kaleng (apalagi di perusahaan tech dan perbankan).



Bukalapak

Front End Developer - Monthly

IDR 18,848,403 /mo

11 salaries

See 13 salaries from all locations

4.5 ★



Traveloka

Software Engineer - Monthly

IDR 17,206,347 /mo

139 salaries

See 162 salaries from all locations

4.3 ★



Bank Mandiri

Back End Developer - Monthly

About IDR 13M -IDR 14M

1 salaries

See 1 salaries from all locations

4.1 ★



Bank BTPN

Front End Developer - Monthly

About IDR 12M -IDR 31M

2 salaries

See 2 salaries from all locations

3.9 ★



Ruangguru.com

Front End Developer - Monthly

About IDR 10M -IDR 17M

2 salaries

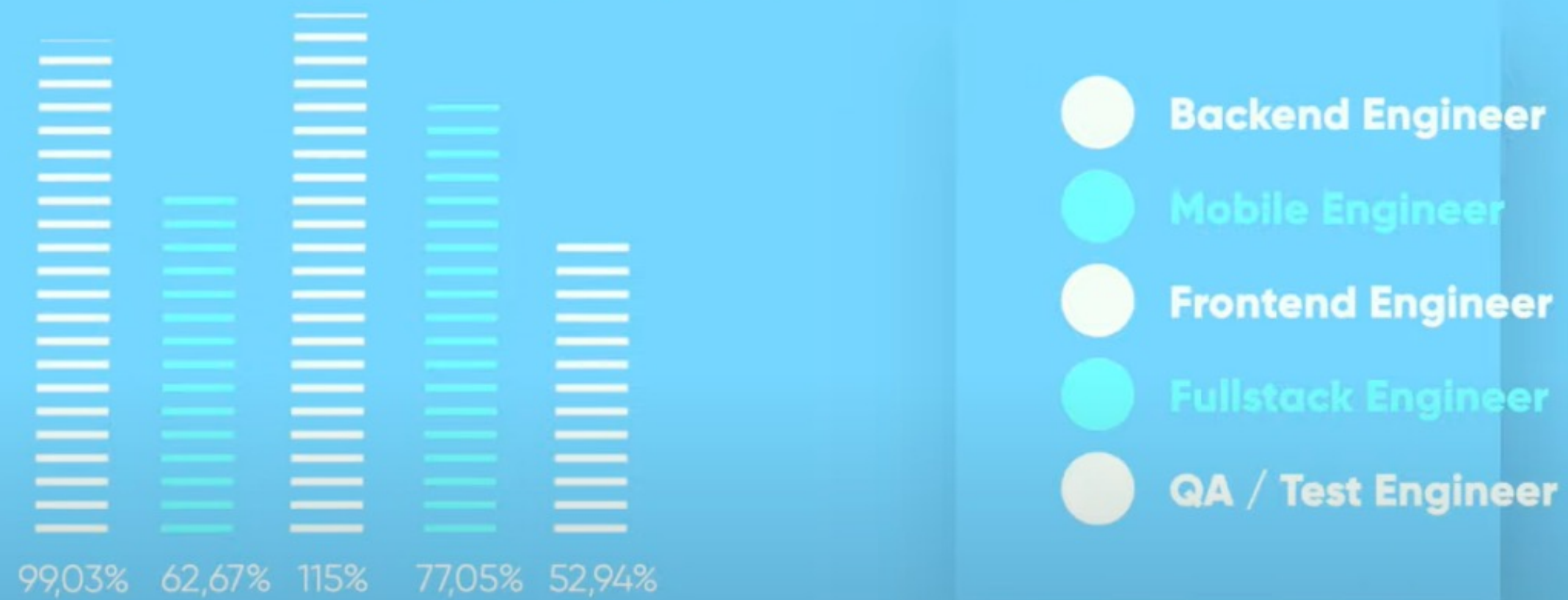
See 2 salaries from all locations

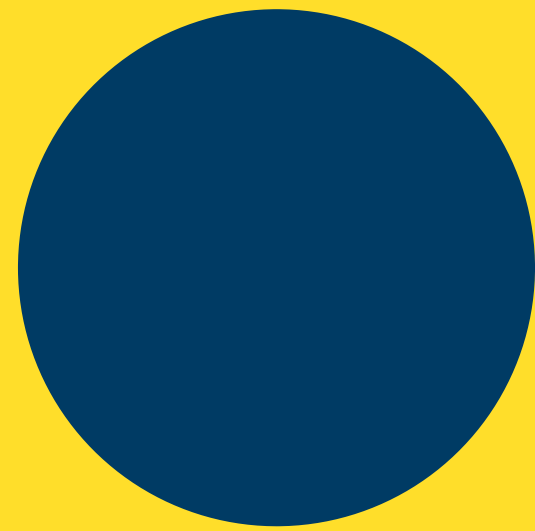
4.1 ★

< Swipe

5 Posisi pekerjaan Software Engineer

yang paling banyak dicari di tahun 2021





Apa alur kerja dari Frontend Developer

1. New Feature Proposed
2. PM assess the usage
3. PM discuss with Tech Lead
4. UI/UX create design (for new feature)
5. BE to create API (for new feature)
6. FE to craft the design and wire it with BE API



Integrated Development Environment (IDE)



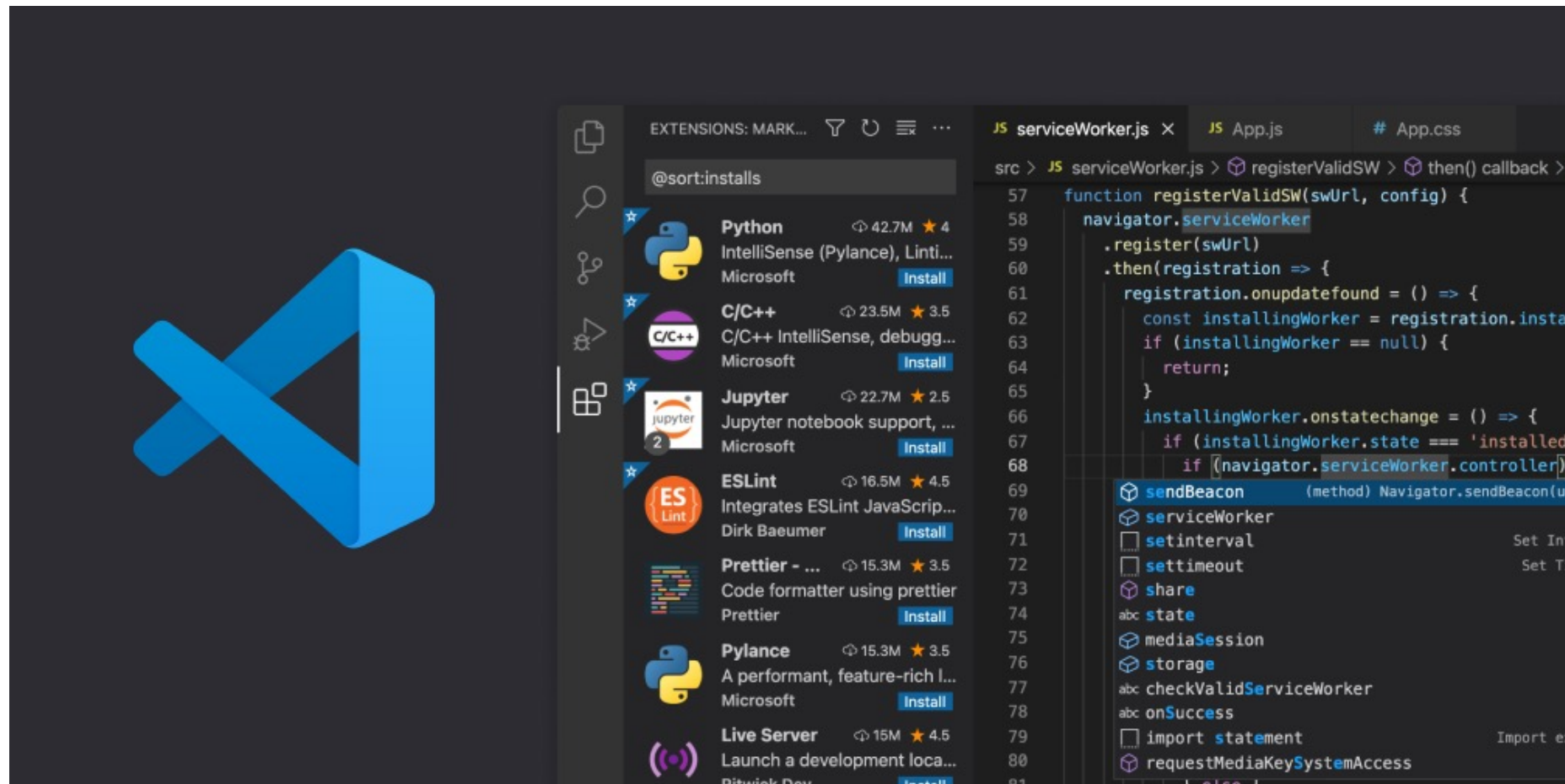
Merupakan program komputer sebagai lingkungan pengembangan aplikasi atau program komputer yang memiliki beberapa fasilitas yang diperlukan dalam pembangunan perangkat lunak.



Tujuan dari IDE adalah untuk menyediakan semua utilitas yang diperlukan dalam membangun perangkat lunak.



Visual Studio Code



- Ada banyak IDE, tapi kita harus memilih IDE yang paling cocok untuk pengembangan suatu website
- Untuk Web Development VS Code sangat recommended



Bagaimana Caranya agar kita terbiasa untuk ngoding?

1

Latihan, Latihan Latihan, dimana kita bisa Latihan?

2

Hackerrank, Leetcode, dll

HackerRank Prepare > Algorithms > Warmup > Staircase

Exit Full Screen View

Change Theme Language JavaScript (Node.js)

You can always go back to the **Light Theme** by clicking here.

```
1 'use strict';
2
3 process.stdin.resume();
4 process.stdin.setEncoding('utf-8');
5
6 let inputString = '';
7 let currentLine = 0;
8
9 process.stdin.on('data', function(inputStdin) {
10   inputString += inputStdin;
11 });
12
13 process.stdin.on('end', function() {
14   inputString = inputString.split('\n');
15   main();
16 });
17
18
19 function readLine() {
20   return inputString[currentLine++];
21 }
22
23 /*
24  * Complete the 'staircase' function below.
25  *
26  * The function accepts INTEGER n as parameter.
```

Line: 39 Col: 1

Upload Code as File Test against custom input Run Code Submit Code



1

Git adalah alat untuk kontrol versi kode

2

Berguna saat Anda bekerja dalam tim dan mengerjakan fitur kompleks

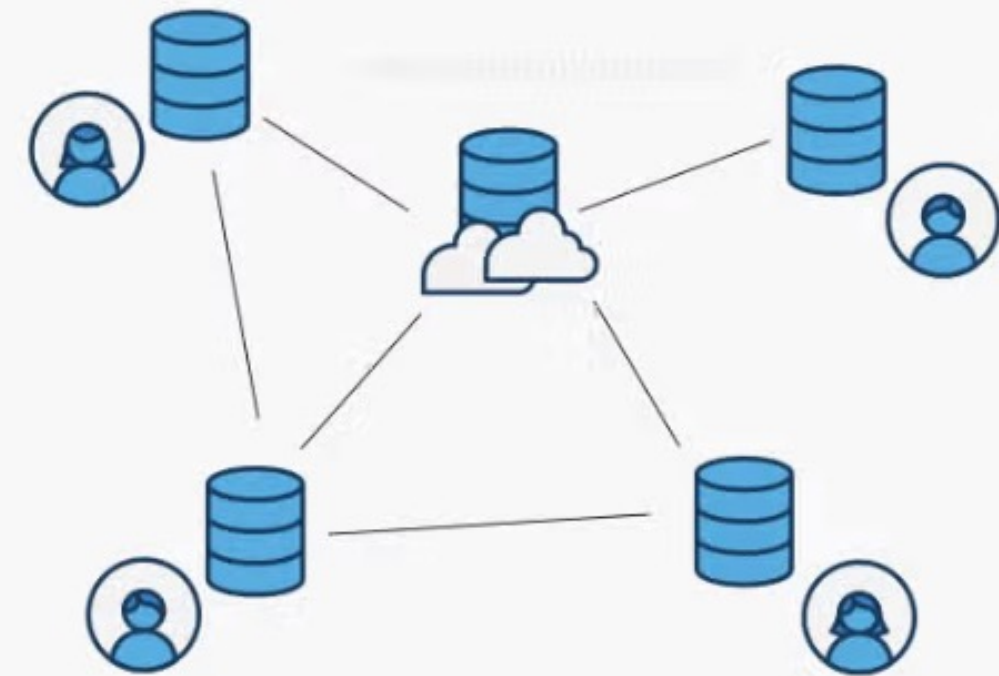
3

Thanks to Linus Torvalds

4

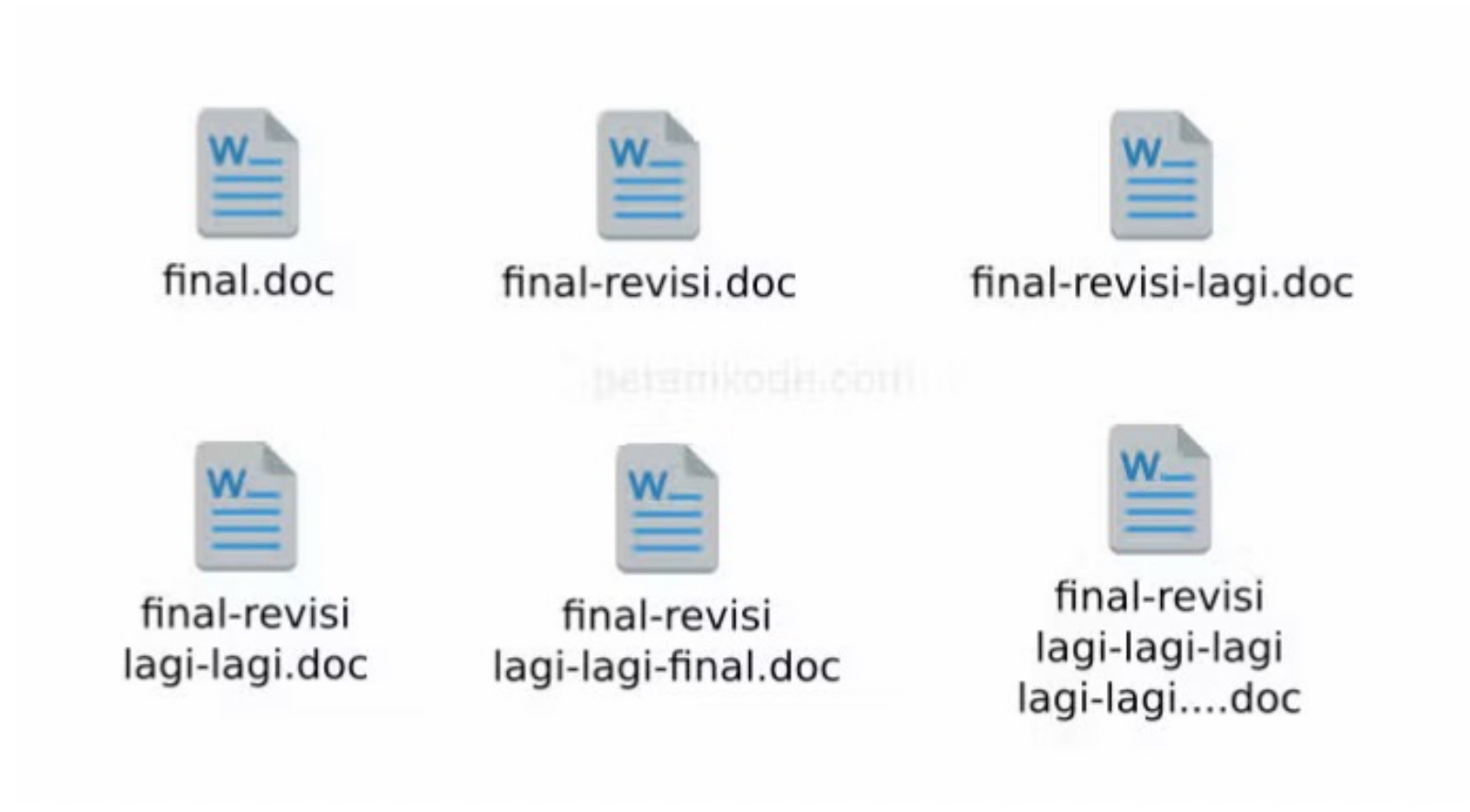
Pengontrol versi bertugas mencatat setiap perubahan pada file proyek yang dikerjakan oleh banyak orang maupun sendiri.

Apa itu Git?

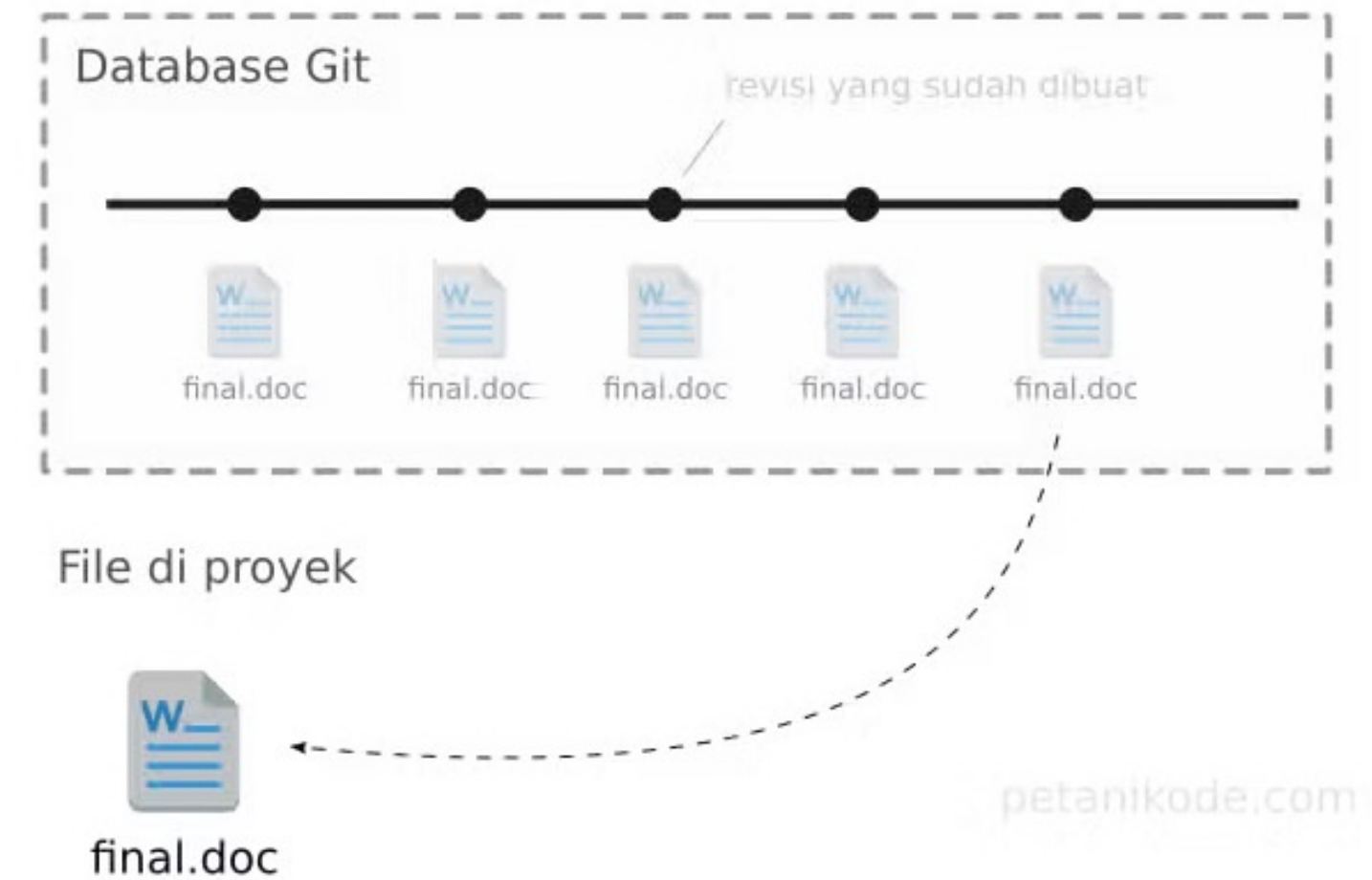


Apa yang dilakukan oleh git?

Before



After



GitHub GIT CHEAT SHEET

Git is the free and open source distributed version control system that's responsible for everything GitHub related that happens locally on your computer. This cheat sheet features the most important and commonly used Git commands for easy reference.

INSTALLATION & GUIs

With platform specific installers for Git, GitHub also provides the ease of staying up-to-date with the latest releases of the command line tool while providing a graphical user interface for day-to-day interaction, review, and repository synchronization.

GitHub for Windows

<https://windows.github.com>

GitHub for Mac

<https://mac.github.com>

For Linux and Solaris platforms, the latest release is available on the official Git web site.

Git for All Platforms

<http://git-scm.com>

SETUP

Configuring user information used across all local repositories

```
git config --global user.name "[firstname lastname]"
set a name that is identifiable for credit when review version history

git config --global user.email "[valid-email]"
set an email address that will be associated with each history marker

git config --global color.ui auto
set automatic command line coloring for Git for easy reviewing
```

SETUP & INIT

Configuring user information, initializing and cloning repositories

```
git init
initialize an existing directory as a Git repository

git clone [url]
retrieve an entire repository from a hosted location via URL
```

STAGE & SNAPSHOT

Working with snapshots and the Git staging area

```
git status
show modified files in working directory, staged for your next commit

git add [file]
add a file as it looks now to your next commit (stage)

git reset [file]
unstage a file while retaining the changes in working directory

git diff
diff of what is changed but not staged

git diff --staged
diff of what is staged but not yet committed

git commit -m "[descriptive message]"
commit your staged content as a new commit snapshot
```

BRANCH & MERGE

Isolating work in branches, changing context, and integrating changes

```
git branch
list your branches. a* will appear next to the currently active branch

git branch [branch-name]
create a new branch at the current commit

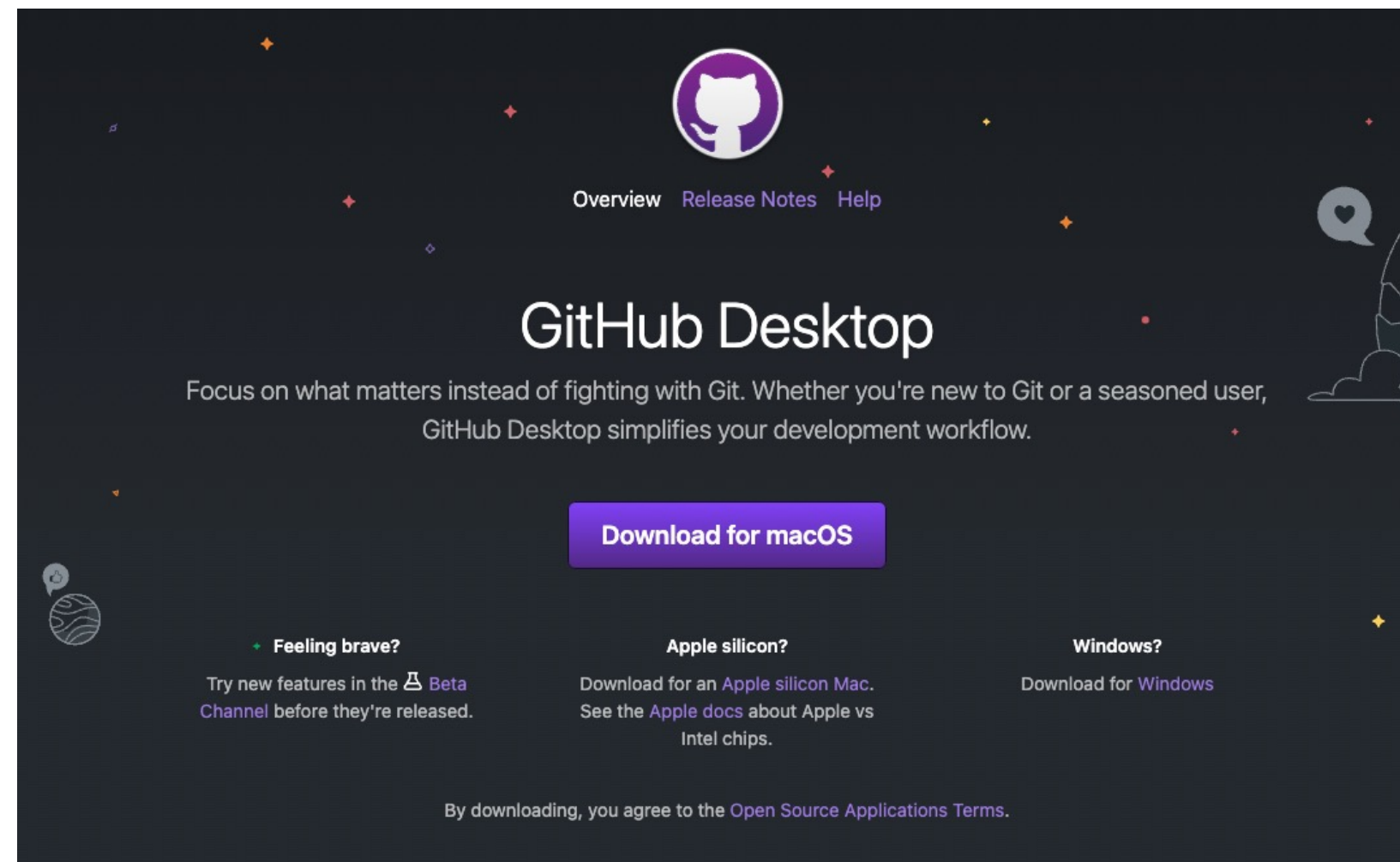
git checkout
switch to another branch and check it out into your working directory

git merge [branch]
merge the specified branch's history into the current one

git log
show all commits in the current branch's history
```

Tools untuk mempermudah Git

- Git Cheat Sheet
- Github Desktop
- Sourcetree
- Dll
- Tapi tetap harus tau basic nya ya





Thank you

