

Laporan SIB

BANGKIT ACADEMY GOOGLE

**Healthlens Image Clasification With TensorFlow and Keras Model to Deploy in
Google Cloud Platform and Build Api With Flask**

Program Magang Studi Independ Bersertifikat



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**PROGRAM STUDI SISTEM INFORMASI
FAKULTAS ILMU KOMPUTER
UNIVERSITAS DIAN NUSWANTORO
SEMARANG 2022**

PERSETUJUAN LAPORAN BANGKIT ACADEMY

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Program Studi : Sistem Informasi
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Judul Laporan : Healthlens Image Clasification With TensorFlow and Keras Model to Deploy in Google Cloud Platform and Build Api With Flask
Bangkit Academy

Laporan ini telah disetujui untuk diuji dihadapan penguji

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Laporan ini telah diujikan dan dipertahankan dihadapan Dewan Penguji pada Sidang laporan Bangkit Academy pada Tanggal 14 Juli 2022.

Menurut pandang kami. Laporan Bangkit Academy ini memadai dari segi kualitas maupun kuantitas untuk tujuan mencapai gelar Sarjana Komputer Strata satu pada Fakultas Ilmu Komputer Universitas Dian Nuswantoro

Semarang, 14 Juli 2022

Dewan Penguji

Narasumber 1

Narasumber 2

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ABSTRACT

Seseorang Dijaman ini terutama anak muda ingin sekali mempunyai kondisi kulit yang bagus, dan terawat dengan itu seseorang akan membeli berupa facial skin, skin care dan perawatan lainnya, akan tetapi seseorang itu terkadang tidak tau kondisi kulitnya dan tidak yakin, dan juga beberapa malas jika ingin mengecek ke dokter kulit, ataupun karna takut jika ke dokter kulit harganya mahal. Terkadang ada juga karna tempat didaerahnya jauh dengan dokter kulit. Healthlens Dibuat dengan Kecerdasaan Buatan (Ai) dan di susun menggunakan Mechanne Learning dengan Menggunakan Deep Learning dan Metode yang dipakai Yaitu Neural Network. Healthlens, Untuk Infrastructur Menggunakan Compute Engine, dengan library yang digunakan meliputi TensorFlow, Keras, Numpy dan Backend API Menggunakan Flask. Hasil dari aplikasinya pengguna dapat mendeteksi jenis kulit dan proses kulit Anda yang terhubung Dengan API yang didapat dari Cloud Computing. Dan Hasil dari deteksi akan ditampilkan kepada pengguna. Pada Halaman hasil meliputi : result skin, daily tips dan rekomendasi produk. Proses Deployment MI Model pada Arsitektur Cloud Computing Sebaiknya menambahkan Load balancing dan autoscaling agar beban kerja pada server dapat lebih optimal dan tidak overload jika terlalu banyak menangani permintaan user

kata kunci: API, Machine Learning Akurasi, Load Balancing, Microservice, Flask

KATA PENGANTAR

Puji syukur kami panjatkan kehadiran Allah SWT, karena atas rahmat dan karunianyaNya sehingga kegiatan Kampus Merdeka ini hingga penyusunan laporan kegiatan Kampus Merdeka dapat diselesaikan dengan baik dan tepat pada waktu yang telah ditentukan. Sholawat serta salamPun kami haturkan kepada junjungan kita Nabi Besar Muhammad SAW dan para sahabatnya, yang telah memberikan tauladan baik sehingga akal dan fikiran penyusun mampu menyelesaikan Laporan Kampus Merdeka ini, semoga kita termasuk umatnya yang kelak mendapatkan syafa'at dalam menuntut ilmu.

Laporan Kampus Merdeka ini, disusun berdasarkan apa yang telah dijalankan selama melaksanakan kegiatan Kampus Merdeka Bangkit Academy. Yang dilaksanakan selama jangka waktu kurang lebih 18 Minggu, mulai tanggal 14 Februari hingga 17 Juni 2022.

Dalam penyusunan laporan ini, kami menyadari masih banyak kekurangan baik dari segi susunan serta cara penulisan laporan ini, karenanya saran dan kritik yang sifatnya membangun demi kesempurnaan laporan ini sangat kami harapkan. Akhirnya, semoga laporan ini bisa bermanfaat bagi para pembaca pada umumnya dan juga bermanfaat bagi penyusun pada khususnya.

Semarang, 17 Juni 2022



Alvin Steven

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BAB I

PENDAHULUAN

A. Latar Belakang

Kampus Merdeka merupakan wujud pembelajaran di perguruan tinggi yang otonom dan fleksibel sehingga tercipta kultur belajar yang inovatif, tidak mengekang, dan sesuai dengan kebutuhan mahasiswa. Program utama yaitu: kemudahan pembukaan program studi baru, perubahan sistem akreditasi perguruan tinggi, kemudahan perguruan tinggi negeri menjadi PTN berbadan hukum, dan hak belajar tiga semester di luar program studi. Mahasiswa diberikan kebebasan mengambil SKS di luar program studi, tiga semester yang di maksud berupa 1 semester kesempatan mengambil mata kuliah di luar program studi dan 2 semester melaksanakan aktivitas pembelajaran di luar perguruan tinggi.

Berbagai bentuk kegiatan belajar di luar perguruan tinggi, di antaranya melakukan magang/ praktik kerja di Industri atau tempat kerja lainnya, melaksanakan proyek pengabdian kepada masyarakat di desa, mengajar di satuan pendidikan, mengikuti pertukaran mahasiswa, melakukan penelitian, melakukan kegiatan kewirausahaan, membuat studi/ proyek independen, dan mengikuti program kemanusiaan. Semua kegiatan tersebut harus dilaksanakan dengan bimbingan dari dosen. Kampus merdeka diharapkan dapat memberikan pengalaman kontekstual lapangan yang akan meningkatkan kompetensi mahasiswa secara utuh, siap kerja, atau menciptakan lapangan kerja baru.

Salah Satu Program tersebut adalah Bangkit Academy, Bangkit Academy merupakan program pendidikan untuk mempersiapkan high caliber technical talent untuk perusahaan teknologi di Indonesia dan Startups yang dibangun oleh Google. Bangkit terasosiasi dengan program Kampus Merdeka yang saat ini hanya dibuka bagi beberapa kampus mitra Bangkit. Program Bangkit ini

akan berjalan selama 6 bulan yang menawarkan 3 program yaitu Machine Learning, Mobile Programming, dan Cloud Computing dan sudah disertai dengan sertifikasi global. Selain Itu deprogram Bangkit Terdapat Project Capstone yang terdiri dari 6 anggota, serta ujian sertifikasi keahlian yang akan dimiliki oleh yang mengikuti bangkit academy, dan adanya softskill yang sebagai penambah keahlian disisi softskillnya. Program Bangkit berkolaborasi dengan Google bersama Gojek-Tokopedia (GoTo), Traveloka, dan Deeptech Foundation.

1.2 Ruang Lingkup

Pada laporan pembelajaran ini menjelaskan tentang proses yang terdapat di Studi Independen Bangkit Academy Kampus merdeka meliputi :

Proses Kurikulum Path Cloud Computing di bangkit, tentang Practical Hardskill kemudian penambahan softskill serta kelas Bahasa inggris yang di teacher nya didatangkan dari philipina. Serta capstone project yang wajib dilakukan oleh peserta bangkit sebagai standart kelulusan Di Bangkit.

1.3 Tujuan

- Program Bangkit Academy ini ditujukan untuk persiapan karir, disertai pemberian materi guna membekali peserta dengan keterampilan yang relevan untuk berkarir di perusahaan teknologi terkemuka.
- Mengembangkan wawasan, karakter dan softskill mahasiswa.
- Mengasah keterampilan berpikir dalam bekerja sama lintas bidang ilmu dan ragam mahasiswa dalam menyelesaikan masalah yang dihadapi.

BAB II

MITRA STUDI INDEPENDEN BERSERIKAT

2.1 Gambaran Mitra Bangkit



Gambar 1 Sepertu Bangkit

Bangkit adalah sebuah program yang dilaksanakan pemerintah Indonesia, agar dapat melatih kumpulan mahasiswa untuk melatih softskill dan hardskill mereka, untuk dapat diterapkan di kehidupan. Ketika mau persiapkan carrier masa depan Program ini dirancang oleh Google yang bekerja sama dengan beberapa perusahaan teknologi Indonesia, seperti Gojek, Tokopedia, dan Traveloka.

Bangkit hanya ditujukan untuk mahasiswa dengan minimal semester 5 pada jenjang Pendidikan S1 dan D4 yang terdaftar di perguruan tinggi terakreditasi seluruh Indonesia. Ada sebanyak 3000 kuota yang disediakan pada penyelenggaraan kali kedua program ini, yakni tahun 2022. Program Bangkit tahun 2022 terdiri dari tiga topik pembelajaran, yakni machine learning, cloud computing, dan mobile development. Tidak hanya belajar tentang keahlian teknis, peserta juga dibekali keterampilan yang mendukung di dunia kerja, seperti kepemimpinan, komunikasi, memulai

usaha sendiri, kemampuan berpikir kritis, dan keterampilan lainnya. Bahasa pengantar yang digunakan selama pembelajaran adalah Bahasa Inggris Mahasiswa yang tergabung dalam program ini diperkenankan untuk melakukan konversi SKS (Satuan Kredit Semester) hingga 20 SKS. Selain itu, Program Bangkit juga bekerja sama dengan 15 perguruan tinggi ternama di Indonesia

Partner Bangkit Di universitas diindonesia



Gambar 2 Kampus Partner Bangkit

Path yang ada di bangkit academy

1. Machine Learning

Program Bangkit yang dikhushukan mempelajari masalah ml model, kemudian Membuat Otomatisasi TI Google Dengan Python, dan akan mendapatkan Sertifikat TensorFlow dan DeepLearning.

2. Mobile Development

Program ini dikhushukan bagi peserta yang ingin focus ke aplikasi mobile development dengan mempelajari kotlin dan aplikasi android, membangun apps dan akan mendapatkan Google Associate Android Developer

3. Cloud Computing

Program Cloud Computing mempunyai kurikulum dan mengajarkan bagaimana membuat APi, Web, Backend , Google Cloud Computing

Foundations, Google Cloud Skill Boost, dan Archiceting With Google Compute Engine

2.2 Structur Organisasi Dibangkit Academy

Berikut struktur organisasi di Bangkit Academy 2022 dengan SuperVisor Mr. Adrianus Yoza



Gambar 3 Structur Organisasi Bangkit Academy

2. 3 Ruang Lingkup Project

1. Tech Skill Path Cloud Engineer

Kurikulum Tech Skill Bangkit untuk mempelajari, proses pembuatan website, buat javascript, serta membuat APi Menggunakan Node Js Sebagai Backendnya. Selain itu Tech Skill Bangkit Juga Memberikan Kurikulum tentang bagaimana mendeploy apps ke server, memanage server, bangun infrastruktur dan melakukan desain infrastruktur yang tepat, reliable, serta terjangkau. Dengan menggunakan Google Cloud Platform.

2. SoftSkill

Pada Softskill ini, Kita diajarkan tentang berpikir Kritis, melakukan digital branding dan membangun interview komunikasi yang baik dan benar. Kemudian diajarkan tentang adaptability proses adaptasi, dan membuat

Mvp (minimum Value Product) Ketika membuat suatu startup ataupun juga program aplikasi.

3. English Class

Pada kelas Bahasa inggris kita diajarkan bagaimana membuat percakapan yang benar, dan membuat ekspresi opini yang bagus dan membangun presentasi bisnis yang menarik.

4. Capstone Project

Capstone Project merupakan salah satu program bangkit, yang terdiri dari 6 orang anggota team, dan team itu akan membuat sebuah startup yang membahas tentang problematika diindonesia.

5. Exam Sertifikasi

Adalah Ujian bagi peserta bangkit agar mendapatkan certifikat final Google Acosiate Cloud Enginner Global.

2.4 Gambaran Project

Pada akhir semester peserta diberikan tugas akhir berupa proyek yang harus diselesaikan dalam tim. Tim terdiri dari enam peserta dengan anggota masing-masing dua dari setiap penjurusan dimana hal ini berguna dikarenakan tugas akhir berupa produk dengan implementasi dari ketiga penjurusan. Tugas akhir berupa sebuah aplikasi yang harus dibuat tim dengan tujuan menyelesaikan permasalahan yang ada di Indonesia. Referensi dalam menemukan permasalahan Bangkit mengundang berbagai narasumber seperti pihak kementerian, Jakarta Smart City, dan JaBar Smart City.

Capstone project ini Peserta diharuskan membuat sebuah produk dalam sebuah team yang beranggotakan 6 orang dan mengandung unsur 3 learning path, yaitu Machine Learning, Cloud Computing, dan Android Developer. Produk yang dibuat bisa berupa mobile apps atau bahkan sebuah alat yang mengusung IoT (Internet of Things).

Pada Capstone Project ini terdapat kompetisi untuk memenangkan 15 project terbaik dari total 486 tim. Seleksi dilakukan dengan 2 tahap, tahap pertama adalah presentasi dan penilaian berasal dari tim lain yang memiliki tema yang sama, kemudian akan dipilih 50 project terbaik yang selanjutnya akan dinilai oleh panelis yang berasal dari bidang bisnis, machine learning, cloud computing, Android, dan dari bidang akademik yang akan menghasilkan 15 project terpilih dan akan mendapatkan pendanaan sebesar \$10000

2.5 Jadwal SIB – Bangkit Academy

Week of		Jadwal SIB Bangkit Academy		
		Soft skills	English	Cloud
Week 0	7, Feb		English Pre-test	
Week 1	14, Feb			Basic Web Development by Dicoding (up to Pendalaman CSS)
Week 2	21, Feb	Preread SS 1 Time Management		Basic Web Development by Dicoding (end of the course) JavaScript Basic by Dicoding (up to Fundamental JavaScript)
Week 3	28, Feb	ILT SS 1		JavaScript Basic by Dicoding (up to Module)
Week 4	07, Mar	Assignment SS 1 Preread SS 2 Professional Branding & Interview	English - 1 Spoken Correspondence	JavaScript Basic by Dicoding (end of the course) Back-End Basic by Dicoding (up to Membangun Web Services Menggunakan Node.js)
Week 5	14, Mar	ILT SS 2		Back-End Basic by Dicoding (end of the course) Google Cloud Computing Foundations (up to Cloud Computing Fundamentals)

Gambar 4 Jadwal SIB - 1#

Week 6	21, Mar	Assignment SS 2 Preread SS 3 Critical thinking		Google Cloud Computing Foundations (end of the Quest)
				Qwiklabs Quests (Google Developer Essentials, Implement DevOps in Google Cloud, Build Interactive Apps with Google Assistant, Build a Website on Google Cloud) Architecting with Google Compute Engine (Course 1 Google Cloud Fundamentals: Core Infrastructure)
Week 7	28, Mar	ILT SS 3		Qwiklabs Quests (Create and Manage Cloud Resources, Perform Foundational Infrastructure Tasks in Google Cloud, Perform Foundational Data, ML, and AI Tasks in Google Cloud) Architecting with Google Compute Engine (Course 2 Essential Google Cloud Infrastructure: Foundation)
				Qwiklabs Quests (Set Up and Configure a Cloud Environment in Google Cloud, Deploy and Manage Cloud Environments with Google Cloud)
Week 8	04, Apr	Assignment SS 3 Preread SS 4 Adaptability	English - 2 Expressing Opinion	Qwiklabs Quests (Build and Secure Networks in Google Cloud, Monitor and Log with Google Cloud Operations Suite) Architecting with Google Compute Engine (Course 3 Essential Google Cloud Infrastructure: Core Services , Course 4 Elastic Google Cloud Infrastructure: Scaling and Automation)
Week 9	11, Apr	ILT SS 4		

Gambar 5 Jadwal SIB - 2#

Week 10	18,Apr	ILT SS 4 - extd		Architecting with Google Compute Engine (Course 5 Reliable Google Cloud Infrastructure: Design and Process)
		Assignment SS 4		Qwiklabs Quests (Cloud Architecture: Design, Implement, and Manage, Understanding Your Google Cloud Costs, Optimizing Your Google Cloud Costs, Security & Identity Fundamentals)
Week 11	25,Apr	ILT SS 5		Qwiklabs Quests(Cloud Logging, Deploy to Kubernetes in Google Cloud) Preparing for ACE Certification (Coursera)
	29,Apr			IED HOLIDAY
Week 12	09,May	Assignment SS 5		
Week 13	16,May		English - 3 Business Presentatio n	
Week 14	23,May			
Week 15	30,May			
Week 16	06,Jun			
Week 17	13,Jun	Preread SS 6 Startup Valuation & Investment Pitch		
Week 18	20,Jun	ILT SS 6 & Assignment	English Post-test	Cloud Certification Preparation (up to 2nd simulation)
Week 19	27,Jun	Preread SS 7 Professional Communications		Cloud Certification Preparation (up to last simulation)
Week 20	04,Jul	ILT SS 7 & Assignment		
Week 21	11,Jul		End of Learning, Certification Offering, Merchandise	
	18,Jul		Transcript & Administration	
	25,Jul		Clarification, Legal & Letters, Closing	

Gambar 6 Jadwal SIB - 3#

BAB III

PEMBAHASAN PROJECT

3.1 Uraian Kegiatan

3.1.1 Uraian Kurikulum Pembelajaran

Cloud Computing Adalah salah satu dari 3 path di Bangkit 2022 ini Merupakan path yang di pilih oleh penulis. Cloud Computing atau komputasi awan adalah sebuah Layanan yang menyediakan layanan komputasi, terdiri dari server, storage, database, networking dan intelegent over internet, serta dicloud computing dapat memberikan kecepatan yang innovation, dan mempunyai sumberdaya yang sangat flexible, dan memberikan scala yang economic. Membantu dalam pengoperasian dengan biaya terjangkau. Dan memberikan infrastructure yang tepat bagi bisnis.

3.1.2 Uraian Metode Pembelajaran

Metode pembelajaran di bangkit academy tahun 2022 menggunakan full online, seperti Online self paced Learning adalah pembelajaran yang dilakukan secara online, dan bebas dimanapun, Dan. ILT atau Instructor Lead Training adalah pelatihan yang dipimping instructor yang handal dibidangnya, Kemudian Assigment yang dibuat oleh pihak bangkit untuk menguji pemahaman pesertanya.

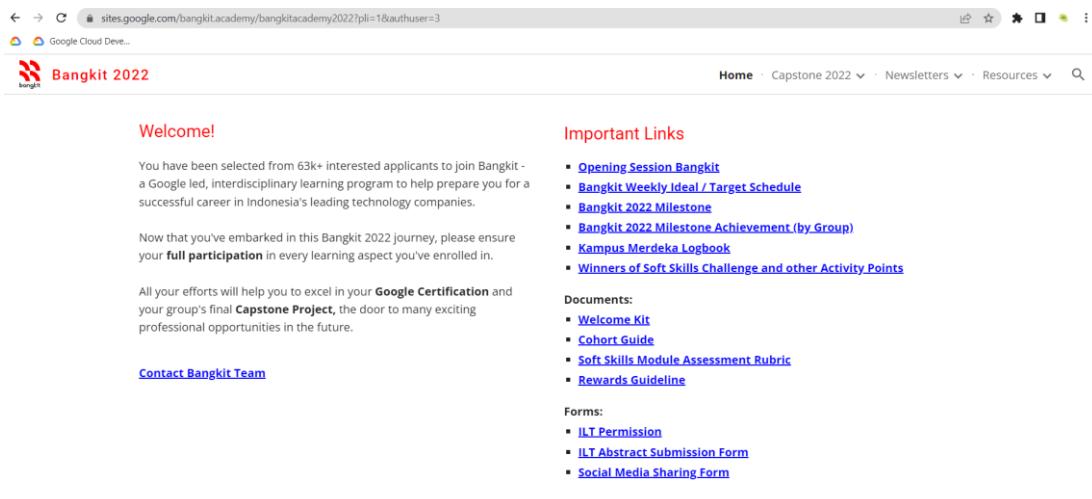
Mengenai Proses Komunikasi, Pihak Bangkit memberikan sebuah tempat grup diDiscord, pada Grup Discord itu sendiri terdapat panitia, penyelengara bangkit, cohort, dan sesama peserta bangkit. Didalam discord itu sendiri terdapat banyak channel. Pada bagian channel terdapat 3 category, 1 channel grup cloud computing berdasarkan kelompok, 2 Group Channel Core Bangkit didalamnya terdapat bagian informasi seperti, Annoucement yaitu informasi seperti pengumuman yang disampaikan resmi oleh pihak bangkit, HelpDesk berisi dukungan informasi kepada peserta yang bingung dan ada permasalahan, QA berisi informasi peserta yang ingin bertanya, Dan Capstone Coordination berisi tentang Informasi Capstone. Yang

terakhir berisi tentang Voice Channel. Mengenai Bahasa yang dipakai untuk Komunikasi adalah Bahasa Inggris.

Terkait Proses Berjalanannya kegiatan bangkit oleh peserta, pihak bangkit diminta untuk mengisi logbook di website kampus merdeka dari mulai bangkit itu berjalan yaitu ditanggal 14 Februari 2022, mengenai aturan penulisan, pihak bangkit merekomendasikan menggunakan Bahasa Inggris yang formal.

3.1.3 Uraian Informasi Bangkit Student Portal

Bangkit Student Portal adalah pusat informasi, yang dapat diakses di website students.bangkit.academy menyediakan informasi yang perlukan students

A screenshot of a web browser displaying the Bangkit 2022 Student Portal. The URL in the address bar is "sites.google.com/bangkit.academy/bangkitacademy2022?pli=1&authuser=3". The page title is "Bangkit 2022". The main content area has a red header "Welcome!" followed by a paragraph of text about being selected for the program. Below this is a link "Contact Bangkit Team". To the right, there is a sidebar titled "Important Links" with several blue hyperlinks: "Opening Session Bangkit", "Bangkit Weekly Ideal / Target Schedule", "Bangkit 2022 Milestone", "Bangkit 2022 Milestone Achievement (by Group)", "Kampus Merdeka Logbook", and "Winners of Soft Skills Challenge and other Activity Points". There are also sections for "Documents" (with links to "Welcome Kit", "Cohort Guide", "Soft Skills Module Assessment Rubric", and "Rewards Guideline") and "Forms" (with links to "ILT Permission", "ILT Abstract Submission Form", and "Social Media Sharing Form").

Welcome!

You have been selected from 63k+ interested applicants to join Bangkit - a Google led, interdisciplinary learning program to help prepare you for a successful career in Indonesia's leading technology companies.

Now that you've embarked in this Bangkit 2022 journey, please ensure your **full participation** in every learning aspect you've enrolled in.

All your efforts will help you to excel in your **Google Certification** and your group's final **Capstone Project**, the door to many exciting professional opportunities in the future.

Contact Bangkit Team

Important Links

- [Opening Session Bangkit](#)
- [Bangkit Weekly Ideal / Target Schedule](#)
- [Bangkit 2022 Milestone](#)
- [Bangkit 2022 Milestone Achievement \(by Group\)](#)
- [Kampus Merdeka Logbook](#)
- [Winners of Soft Skills Challenge and other Activity Points](#)

Documents:

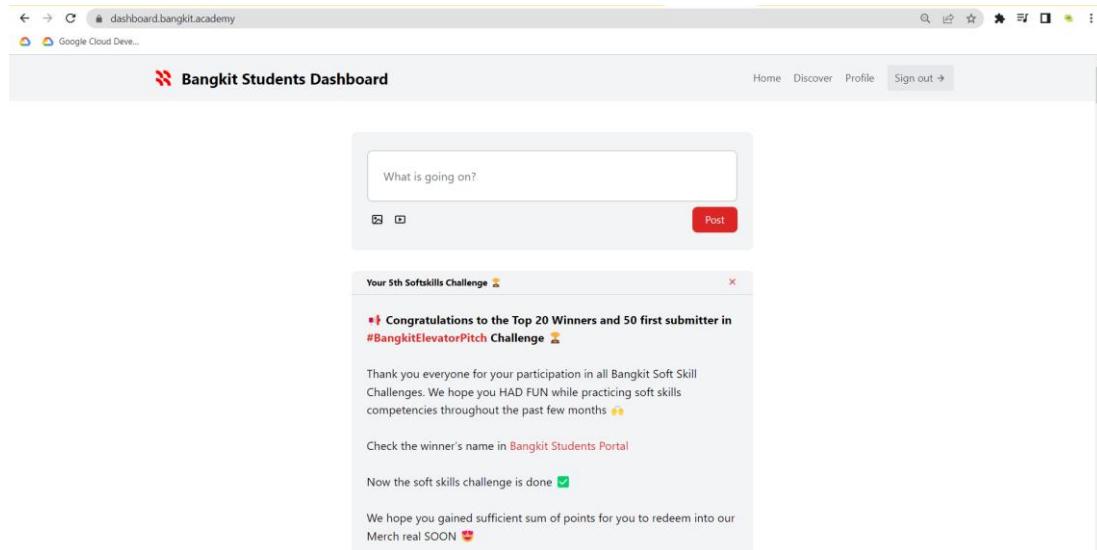
- [Welcome Kit](#)
- [Cohort Guide](#)
- [Soft Skills Module Assessment Rubric](#)
- [Rewards Guideline](#)

Forms:

- [ILT Permission](#)
- [ILT Abstract Submission Form](#)
- [Social Media Sharing Form](#)

Gambar 7 Student Web bangkit academy

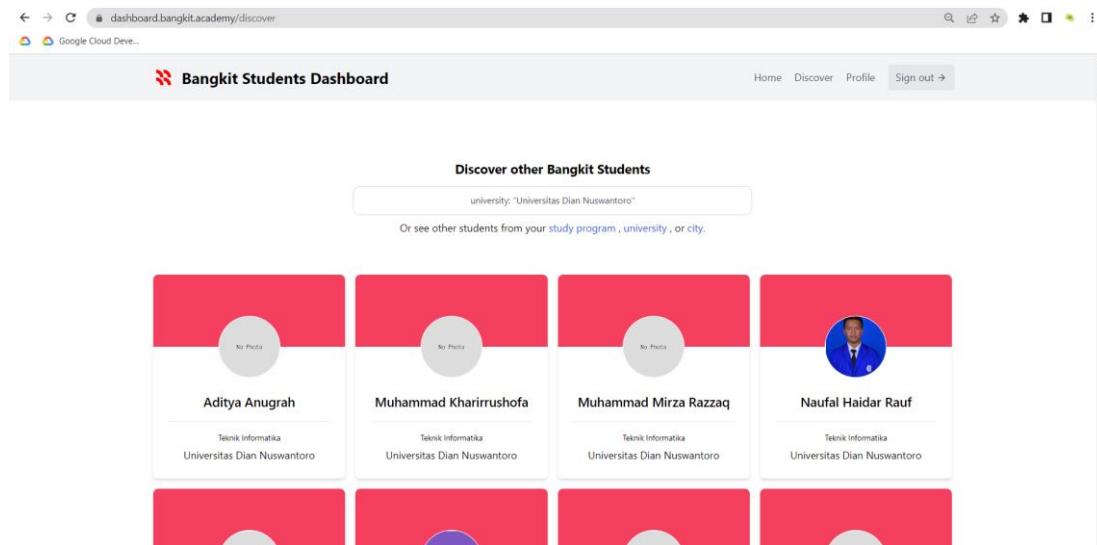
3.1.3 Uraian Informasi Dashboard Bangkit Academy



Gambar 8 informasi Dashboard Bangkit

Pada bagian home terdiri dari informasi, challenge, announcement, dan berfungsi seperti media social,

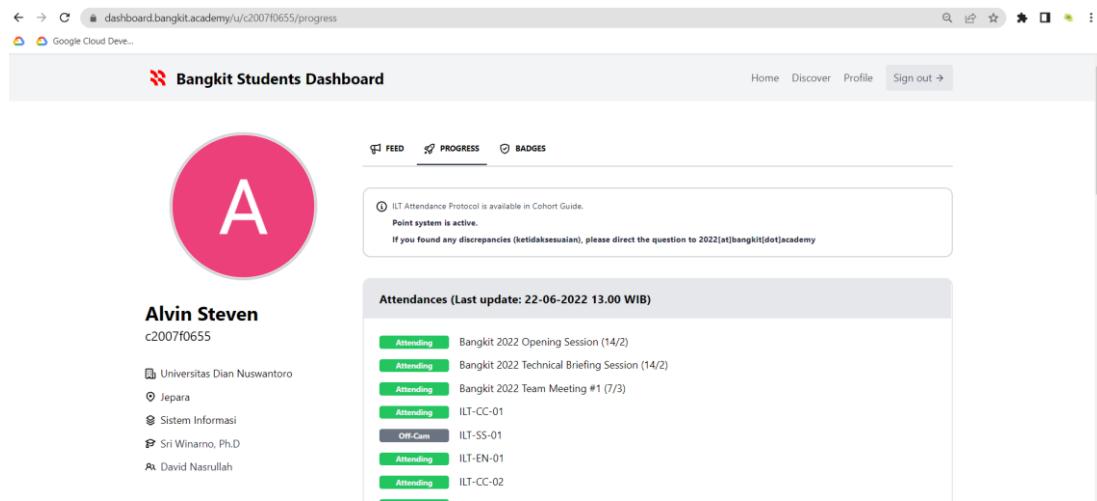
Pada bagian Discovery



Gambar 9 Discovery Bangkit

Pada bagian ini peserta dapat memanfaatkan fitur pencarian orang

Dan terakhir bagian Profile



The screenshot shows the Bangkit Students Dashboard. At the top, there is a navigation bar with links for Home, Discover, Profile, and Sign out. Below the navigation bar is a large circular profile picture placeholder with a large letter 'A' in the center. To the right of the profile picture, the user's name 'Alvin Steven' and ID 'c2007f0655' are displayed. Below this, there is a list of associated entities: Universitas Dian Nuswantoro, Jepara, Sistem Informasi, Sri Winarno, Ph.D, and David Nasrullah. Above the profile section, a message box contains text about ILT Attendance Protocol, a point system, and instructions for reporting discrepancies. Below the profile section is a card titled 'Attendances (Last update: 22-06-2022 13.00 WIB)' which lists several attendance entries with status indicators like 'Attending' or 'Off-Cam' and activity names.

Gambar 10 Profile

Berisi tentang biodata Peserta, Informasi Progress yang terdiri dari absensi, tugas dan pencapaian point.

3.1.4 Uraian Materi Dan Penugasan

Kurikulum Tech Skill Bangkit untuk mempelajari, proses pembuatan website, buat javascript, serta membuat API Menggunakan Node Js Sebagai Backendnya. Selain itu Tech Skill Bangkit Juga Memberikan Kurikulum tentang bagaimana mendeploy apps ke server, memanage server, bangun infrastruktur dan melakukan desain infrastruktur yang tepat, reliable, serta terjangkau. Dengan menggunakan 3 Platform yaitu Dicoding, Coursera, dan Google Skill Boost, untuk detail pelatihan dan sertifikasi spesialisasi sebagai berikut:

Platform Dicoding

Kami Mempelajari tentang

1. Belajar Dasar Pemrograman Web

Pembelajaran ini dibuka dari Dari Minggu 1, 16 Feb dan Deadline 23 Feb 2022

Detail Pembelajaran Sebagai Berikut :

Website di era sekarang sudah menjadi kebutuhan utama yang tidak bisa diabaikan. Seluruh sektor bisnis atau edukasi dapat memanfaatkan website sebagai alat untuk promosi, tukar informasi, dan lainnya. Berdasarkan data dari World Wide Web Technology Surveys, dari seluruh website yang aktif, 88.2% menggunakan HTML, 95.6% menggunakan CSS dan 95% menggunakan JavaScript. Kelas ini membahas tuntas dasar HTML, CSS dan JavaScript sebagai tiga fondasi pembuatan website.

Link : <https://www.dicoding.com/academies/123>

2. Belajar Dasar Pemrograman JavaScript

Pembelajaran ini dibuka dari Dari Minggu 2, 21 Feb dan Deadline 9 Maret 2022

Detail Pembelajaran Sebagai Berikut :

JavaScript adalah bahasa pemrograman yang wajib dikuasai oleh seorang web developer. Bahasa ini awalnya digunakan untuk membuat sebuah website menjadi lebih interaktif. Dalam perkembangannya, JavaScript tidak lagi hanya digunakan pada browser, melainkan juga bisa berjalan pada server. Ini berarti JavaScript digunakan di seluruh bagian website, mulai dari front-end hingga back-end. Bahkan, kini JavaScript mulai merambah ke platform lain seperti mobile, desktop, dan game.

Link : <https://www.dicoding.com/academies/256>

3. Belajar Membuat Aplikasi Back-End untuk Pemula dengan Google Cloud

Pembelajaran ini dibuka dari Dari Minggu 3, 8 Maret dan Deadline 15 Maret 2022

Detail Pembelajaran Sebagai Berikut :

Back-End Developer memiliki peran yang sangat penting dalam membangun sebuah sistem aplikasi meskipun perannya tidak terlihat secara langsung oleh pengguna. Seorang Back-End Developer harus mampu membangun layanan yang mampu mendukung aplikasi Front-End agar berfungsi dengan baik. Kelas ini membahas tuntas kemampuan dasar untuk menjadi seorang Back-End

Developer dengan membangun RESTful API menggunakan teknologi Node.js dan layanan komputasi milik Google Cloud yakni Compute Engine.

Link : <https://www.dicoding.com/academies/342>

Platform Google Skill Boost

Kami Mempelajari Tentang :

1. Google Cloud Computing Foundations - GCCF (4 badges)

Pembelajaran ini dibuka dari Tgl 28 March dan Deadline Tgl 30 March

Detail Pembelajaran Sebagai Berikut :

- a. Google Developer Essentials

In this Quest I develop how to develop and scale applications without setting up infrastructure or without a server, run data analytics, gain insights from data, and develop with pre-trained ML APIs to take advantage of machine learning.

Link : <https://bit.ly/EssentialGCE>

- b. Implement DevOps in Google Cloud

In this DevOps Quest, the goal is for students to be able to develop applications, which have characteristics, such as speed in sending connections between software, Reliable Server, managing servers with load balancing which has the function of managing, managing, and creating applications with clusters using the Google Kubernetes Engine.

Link : <https://bit.ly/DevOpsGoogleCloud>

- c. Build Interactive Apps with Google Assistant

In this Quest, the author learns how to create applications that can be commanded and run with Google Assistant. An example of an application that the author implements is to create a translation using the Integrated Cloud Translation API.

Link : <https://bit.ly/BuildAppsUsingGoogleAssitant>

- d. Build Website on Google Cloud

In this Quest the author learns how to deploy a website on GCP, and utilizes GKE (Google Kubernetes Engine) and also learns how to migrate from Monolith Application to MicroService

Monolith Architecture is usually used on a small scale and the advantage of MicroService is that each service has its own function, and can communicate with one another, so the point is that microservices are more systematic, and can be implemented on various platforms.

Link : <https://bit.ly/BuildWebsiteOnGCP>

2. Online Learning #05-2 - Google Skill Boost - Quest (Infrastructure Modernization)

Pembelajaran ini dibuka dari Tgl 4 March dan Deadline Tgl 8 March

Detail Pembelajaran Sebagai Berikut :

a. Create and Manage Cloud Resources

learn how to do the following: Write gcloud commands and use Cloud Shell, create and deploy virtual machines in Compute Engine, run containerized applications on Google Kubernetes Engine, and configure network and HTTP load balancers.

Link : <https://www.cloudskillsboost.google/quests/120>

b. Perform Foundational Infrastructure Tasks in Google Cloud

learn how to build and connect storage-centric cloud infrastructure using the basic capabilities of the following technologies: Cloud Storage, Identity and Access Management, Cloud Functions, and Pub/Sub.

Link : <https://www.cloudskillsboost.google/quests/118>

c. Perform Foundational Data, ML, and AI Tasks in Google Cloud

learn the basic features for the following machine learning and AI technologies: BigQuery, Cloud Speech AI, Cloud Natural Language

API, AI Platform, Dataflow, Cloud Dataprep by Trifacta, Dataproc, and Video Intelligence API.

Link : <https://www.cloudskillsboost.google/quests/117>

d. Set Up and Configure a Cloud Environment in Google Cloud

learn how to: use the gcloud CLI tool to set up and configure command features of Cloud Identity and Access Management (IAM), deploy and scale a Web App on Google Compute Engine, provision a complete Kubernetes cluster using Google Container Engine (GKE) and break an application into microservices using Kubernetes' Deployments and Services, perform basic networking tasks on Google Cloud Platform, view BigQuery logs inside Cloud Logging and set up a sink to export them back into BigQuery, and migrate a stand-alone PostgreSQL database to Cloud SQL for PostgreSQL using a continuous Database Migration Service job and VPC peering for connectivity.

Link : <https://www.cloudskillsboost.google/quests/119>

e. Deploy and Manage Cloud Environments with Google Cloud

learn how to: use the gcloud CLI tool to set up and configure command features of Cloud Identity and Access Management (IAM), deploy and scale a Web App on Google Compute Engine, provision a complete Kubernetes cluster using Google Container Engine (GKE) and break an application into microservices using Kubernetes' Deployments and Services, perform basic networking tasks on Google Cloud Platform, view BigQuery logs inside Cloud Logging and set up a sink to export them back into BigQuery, and migrate a stand-alone PostgreSQL database to Cloud SQL for PostgreSQL using a continuous Database Migration Service job and VPC peering for connectivity.

Link : <https://www.cloudskillsboost.google/quests/121>

3. Online Learning #05-3 - Google Skill Boost - Quest (Infrastructure Modernization)

Pembelajaran ini dibuka dari Tgl 11 April dan Deadline Tgl 29 April

Detail Pembelajaran Sebagai Berikut :

a. Build and Secure Networks in Google Cloud

learn about multiple networking-related resources to build, scale, and secure your applications on Google Cloud, including how to: 1. Enable Identity-Aware Proxy. 2. Create VPC networks. 3. Create virtual machine instances with nginx web servers using Compute Engine. 4. Create firewall rules to control internal and external access to your VMs. 5. Configure, stress, and protect a multi-region HTTP application with an HTTP load balancer and Google Cloud Armor. 6. Configure and test an internal TCP load balancer with a regional backend service.

Link : <https://www.cloudskillsboost.google/quests/128>

b. Monitor and Log with Google Cloud Operations Suite

learn about common tasks when starting with Google Cloud's operations suite, including how to monitor virtual machines in Compute Engine; use Cloud Monitoring to monitor multiple projects; extend monitoring and logging for Cloud Functions; create and send custom metrics for application data; create Cloud Monitoring alerts based on custom metrics; adjust resources based on monitoring metrics.

Link : <https://www.cloudskillsboost.google/quests/143>

4. Online Learning #05-4 - Google Skill Boost - Quest (Infrastructure Modernization)

Pembelajaran ini dibuka dari Tgl 18 April dan Deadline Tgl 22 April

Detail Pembelajaran Sebagai Berikut :

a. Cloud Architecture: Design, Implement, and Manage :

Learn And Practice how to: deploy a publicly accessible website using Apache web servers, manage the configuration of a Compute Engine VM using startup scripts, configure a firewall using Cloud Deployment Manager, configure secure RDP using a Windows Bastion host and firewall rules, build and deploy a Docker image to a Kubernetes cluster, and then update it, and create a CloudSQL instance and import a MySQL database.

Link : <https://www.cloudskillsboost.google/quests/124>

b. Understanding Your Google Cloud Costs :

learn how to set up a billing account, organize resources, and manage billing access permissions. In the hands-on labs, you'll learn how to view your invoice, track your Google Cloud costs with Billing reports, analyze your billing data with BigQuery or Google Sheets, and create custom billing dashboards with Data Studio

Link : <https://www.cloudskillsboost.google/quests/90>

c. Optimizing Your Google Cloud Costs :

learn several ways to control and optimize your Google Cloud costs, including setting up budgets and alerts, managing quota limits, and taking advantage of committed use discounts. In the hands-on labs, you'll practice using various tools to control and optimize your Google Cloud costs or to influence your technology teams to apply the cost optimization best practices.

Link : <https://www.cloudskillsboost.google/quests/97>

d. Security & Identity Fundamentals :

hands-on practice with Google Cloud's Identity and Access Management (IAM) service, which is the go-to for managing user and virtual machine accounts. You will get experience with network security by provisioning VPCs and VPNs, and learn what tools are available for security threat and data loss protections. Looking for a hands on challenge lab to demonstrate your skills and validate your knowledge?

Link : <https://www.cloudskillsboost.google/quests/40>

5. Online Learning #05-5 - Google Skill Boost - Quest (Infrastructure Modernization)

Pembelajaran ini dibuka dari Tgl 25 April dan Deadline Tgl 27 April

- a. Cloud Logging :

learn how to store, search, analyze, monitor, and alert on log data and events from Google Cloud. The labs in the Quest give you hands-on practice using Cloud Logging to maximize your learning experience and provide insight on how you can use Cloud Logging to your own Google Cloud environment.

Link : <https://www.cloudskillsboost.google/quests/81>

- b. Deploy to Kubernetes in Google Cloud:

learn about Google Kubernetes Engine and multiple deployment approaches including how to: configure and build images to run and debug Docker containers, build Kubernetes Engine clusters, and manage them with kubectl, deploy Kubernetes applications using deployments and continuous delivery techniques.

Link : <https://www.cloudskillsboost.google/quests/116>

6. Online Learning - Google Skill Boost - Quest (Infrastructure Modernization)

Pembelajaran ini dibuka dari Tgl 28 April dan Deadline Tgl 13 May

- a. Monitor and Log with Google Cloud Operations Suite:

learn about common tasks when starting with Google Cloud's operations suite, including how to monitor virtual machines in Compute Engine; use Cloud Monitoring to monitor multiple projects; extend monitoring and logging for Cloud Functions; create and send custom metrics for application data; create Cloud Monitoring alerts based on custom metrics; adjust resources based on monitoring metrics.

Link : <https://www.cloudskillsboost.google/quests/143>

b. Cloud Logging:

learn how to store, search, analyze, monitor, and alert on log data and events from Google Cloud. The labs in the Quest give you hands-on practice using Cloud Logging to maximize your learning experience and provide insight on how you can use Cloud Logging to your own Google Cloud environment.

Link : <https://www.cloudskillsboost.google/quests/81>

Platform Coursera

Kami Mempelajari Tentang :

Pembelajaran ini dibuka dari Tgl 28 Maret dan Deadline Tgl 21 April

Detail Pembelajaran Sebagai Berikut :

1. Architecting with Google Compute Engine Specialization

a. *Google Cloud Fundamentals: Core Infrastructure*

Google Cloud Fundamentals: Core Infrastructure introduces important concepts and terminology for working with Google Cloud. Through videos and hands-on labs, this course presents and compares many of Google Cloud's computing and storage services, along with important resource and policy management tools.

b. Essential Google Cloud Infrastructure: Foundation

This accelerated on-demand course introduces participants to the comprehensive and flexible infrastructure and platform services provided by Google Cloud with a focus on Compute Engine. Through a combination of video lectures, demos, and hands-on labs, participants explore and deploy solution elements, including infrastructure components such as networks, virtual machines and applications services. You will learn how to use the Google Cloud through the console and Cloud Shell. You'll also learn about the role of a cloud architect, approaches to infrastructure design, and virtual

networking configuration with Virtual Private Cloud (VPC), Projects, Networks, Subnetworks, IP addresses, Routes, and Firewall rules.

c. Essential Google Cloud Infrastructure: Core Services

This accelerated on-demand course introduces participants to the comprehensive and flexible infrastructure and platform services provided by Google Cloud. Through a combination of video lectures, demos, and hands-on labs, participants explore and deploy solution elements, including securely interconnecting networks, load balancing, autoscaling, infrastructure automation and managed services.

d. Elastic Google Cloud Infrastructure: Scaling and Automation

This accelerated on-demand course introduces participants to the comprehensive and flexible infrastructure and platform services provided by Google Cloud. Through a combination of video lectures, demos, and hands-on labs, participants explore and deploy solution elements, including securely interconnecting networks, load balancing, autoscaling, infrastructure automation and managed services.

e. Reliable Google Cloud Infrastructure: Design and Process

This course equips students to build highly reliable and efficient solutions on Google Cloud using proven design patterns. It is a continuation of the Architecting with Google Compute Engine or Architecting with Google Kubernetes Engine courses and assumes hands-on experience with the technologies covered in either of those courses. Through a combination of presentations, design activities, and hands-on labs, participants learn to define and balance business and technical requirements to design Google Cloud deployments that are highly reliable, highly available, secure, and cost-effective.

Link : <https://www.coursera.org/specializations/gcp-architecture>

English Learning

1. English Spoken Correspondence

Pembelajaran ini dimulai pada Minggu Ke -4

Pada English Spoken Correspondence Kami Diberikan Penjelasan dan adanya sesi Diskusi langsung dari professional Lead by Raphael Lewis B. De Guzman dari Philipine. Membahas tentang Tata Cara merespon pertanyaan, membuka topik, dari negative, positif dan question dan kami diberi Latihan practice langsung di meet tersebut

Lesson Plan

Stage Aim	Time	Interaction	Activities and Detailed Procedure
Pre-activity	5'	Teacher	Asking the students about their experience having a phone call and conference call in professional business setting.
Introduction to a Phone Conversation	20'	Teacher-Student	<ul style="list-style-type: none">• Listening to the actual phone conversation.• Teacher will ask the students if they understand the conversation and to discuss what they are talking about.• Teacher will explain about the general rules or flow of a spoken correspondence, that usually happen in the phone or in an conference call.

Gambar 11 English Spoken Correspondence

2. English Expression Opinion

Pembelajaran ini dimulai pada Minggu Ke -8



Expressing an Opinion

The ability to express opinions is very important because we will be involved in various meetings and discussions, focused on making decisions. How we convey our opinions, ideas and thoughts will make us more appreciated in the company. Maintaining a vocal presence will allow us to be discovered, as well as enable us to actively contribute to a decision-making process.

Our thoughts are valuable, as they could spark critical brainstorming and alternative ways of thinking that keep finding innovative and novel ways to solve problems in the workplace.

Gambar 12 Expression Opinion

3. English Business Presentation

Pembelajaran ini dimulai pada Minggu Ke -13

Pada English Spoken Correspondence Kami Diberikan Penjelasan dan adanya sesi Diskusi langsung dari professional Lead by Scarlet Pelo. dari Philipine. Mempelajari tentang membuat Percakapan Business Presentation yang baik dengan Gaya kita sendiri



Business Presentation

Giving a presentation is an activity that has become apart of our work activities. Whether you are the leader of a company, or an employee in a business unit, you may have to present your working plans and strategies, provide accountability reports on your performance, or make an offer in front of your business clients. You may also find an opportunity to speak in front of hundreds of people when launching a product or any kind of project.

Delivering a presentation in English can be challenging, but if you follow the general rules, you can start practicing, find your own presentation style, and get better over time!

bongkit

Gambar 13 Business Presentation

4. English Post-Test

Ujian ini dimulai pada Minggu ke 18 terdiri dari 30 Soal

SoftSkill

1. SS 1 Time Management

Pembelajaran ini dimulai pada Minggu Ke -2

Pada SS Time Management Kami Diberikan Penjelasan dan adanya sesi Diskusi langsung dari professional Lead by Ardianus Yoza Membahas tentang Time Management yang bagus dengan menerapkan 4 Quadrant dan Kami diberi tugas untuk membuat 4 quadrant Time Management

Exercise: How do *you* personally *quantify* good time management?

It can be ...

- ✓ Updating GitHub daily/weekly
- ✓ Learning a new skill-set or getting certified on a specific skill
- ✓ Allocating 7 hours each week for physical exercise
- ✓ Completing 1 book each month
- ✓ Spending 1 hour quality time with your family each day
- ✓ Accomplishing 90% of your daily task
- ✓ What other indicators do you set?



Gambar 14 SS 1 Time Management

2. SS 2 Profesional Branding & Interview

Pembelajaran ini dimulai pada Minggu Ke -4

Kami Diberikan Penjelasan dan adanya sesi Diskusi langsung dari professional Lead by Yasmin Shahab Membahas tentang SS 2 Profesional Branding & Interview yang baik

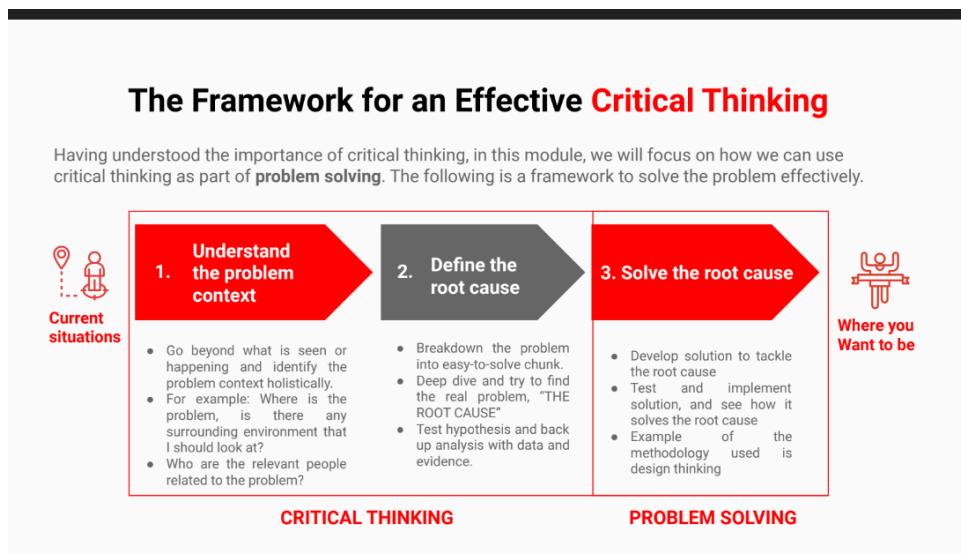


Gambar 15 SS 2 Critical Thingking

3. SS 3 Critical Thingking

Pembelajaran ini dimulai pada Minggu Ke -6

Kami Diberikan Penjelasan dan adanya sesi Diskusi langsung dari professional Lead by Evawaty Tanuar. Membahas tentang SS 3 Critical Thingking yang Efektif



Gambar 16 SS 3 Critical Thingking

4. SS 4 Adabdibility

Pembelajaran ini dimulai pada Minggu Ke -8

Kami Diberikan Penjelasan dan adanya sesi Diskusi langsung dari professional Lead by Elissa Dwi Lestari. Membahas tentang SS 4 Adabdibility yang Baik

Ways of Working

Working Hours

1. **Fixed hours**
Employees work with fixed working hours, e.g. 9am to 5pm

Benefits

- a. Predictable schedule of all employees
- b. Team members work in the same pattern
- c. Easy to arrange meeting

Potential risks

- ⚠ Hard to do something else outside work, especially during weekdays
- ⚠ Prone to boredom because it's monotonous (day in, day out)

How to adapt if your office implement fixed hours

1. Put some activity after or before office hours to avoid the boredom, e.g. after hours jogging
2. Optimize your weekend to do other things aside from working

 **bangkit**

Gambar 17 SS 4 Adadibility

5. SS 5 Idea Generation & Mvp Planning

Pembelajaran ini dimulai pada Minggu Ke -10

Kami Diberikan Penjelasan dan adanya sesi Diskusi langsung dari professional Lead by Risca Suarna. Membahas tentang SS 5 membuat minimum value product, dengan contohnya gojek yang pendirinya bang Nadiem Markarim



Be it by practicing entrepreneurship or intrapreneurship, how did these businesses develop their products in the first place so that we can enjoy it today?

They came into fruition through a careful planning of a minimum viable product.

Gambar 18 SS 5 Idea Generation & Mvp

6. SS 6 Startup Valuation & Investment Pitch

Pembelajaran ini dimulai pada Minggu Ke -12 yang dipimpin oleh Adrianus Yoza Aprilio.

Understanding Investment Stages

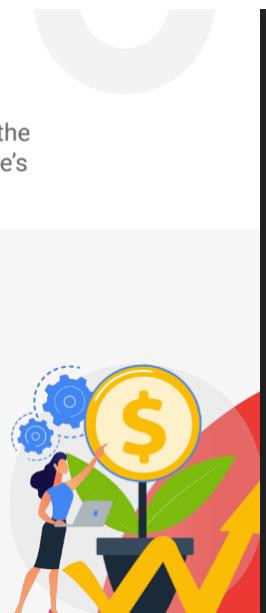
Businesses receive their investments in several rounds depending on the current valuation and growth trajectory of the respective business. Here's a glossary to help you go through each of them.

Pre-Seed Funding

This is the money that most likely comes from your own pocket, gifts or loans from family and friends, and can also be the prize for winning on competitions, which will be used to get you started. The funding is usually just enough to get you start tinkering on your idea.

Seed Funding

This is the stage where **angel and venture investors start to be viable financing options**. The aim of a seed round is to give your idea enough money to take root, which usually means to help you develop the initial product, find initial customers, and conduct validation/retargeting as needed. To be noted, usually in this stage entrepreneurs are the price takers while investors become the price makers.



Gambar 19 SS 6 Startup Valuation & Investment Pitch

7. SS 7 Professional Communication

Pembelajaran ini dimulai pada Minggu Ke -19
Yang di pimpin Oleh Doni Satria Ihsan

Even though almost 75% of employers rate collaboration and teamwork as "very important," according to data from Queens University of Charlotte, 39% of employees think that people in their organization don't collaborate enough.

Improved communication between team members in the workplace often brings fantastic results, including:

- Smoother team building
- Greater agility
- Enhanced focus
- Efficient performance
- Reduced workload

In light of those benefits, it's easy to agree that workplace collaboration is critical. But achieving these results can be difficult. Here are five tips to streamline communications in the digital age:

Gambar 20 SS 7 Professional Communication

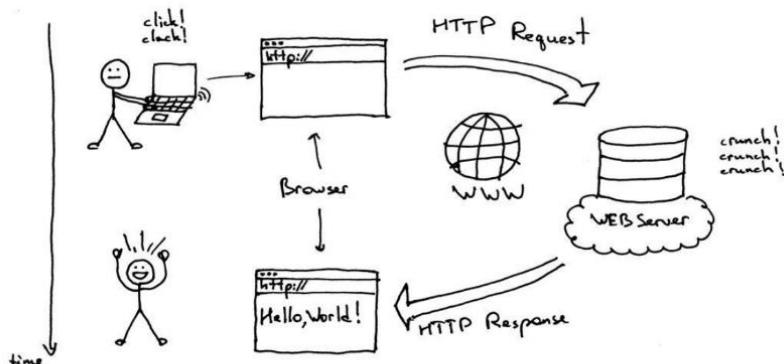
ILT Tech

1. ILT Tech 1

Meet ini dimulai pada Minggu Ke -2

Pada ILT Tech 1 Kami Diberikan Penjelasan dan adanya sesi tanya jawab langsung dari professional Lead by Made Agus Dwi Suarjaya Membahas tentang Html, Css, Javascript

How The Web Works?



bangkit

[Image source](#)

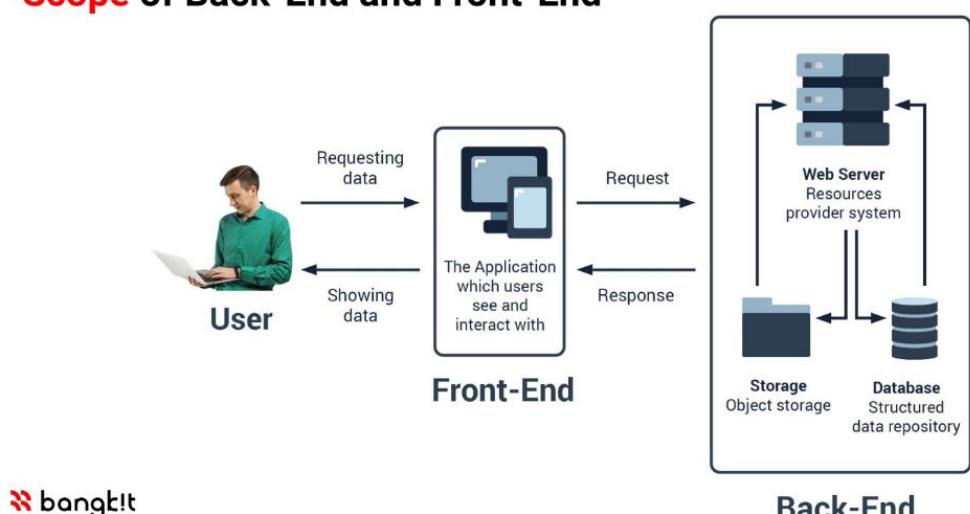
Gambar 21 ILT TECH 1

2. ILT Tech 2

Meet ini dimulai pada Minggu Ke -4

Pada ILT Tech 2 Kami Diberikan Penjelasan dan adanya sesi tanya jawab langsung dari professional Lead by Dicky Satriawan Membahas tentang Backend Flow dan Teori serta Detail Get dan Post dengan Error Message Code

Scope of Back-End and Front-End



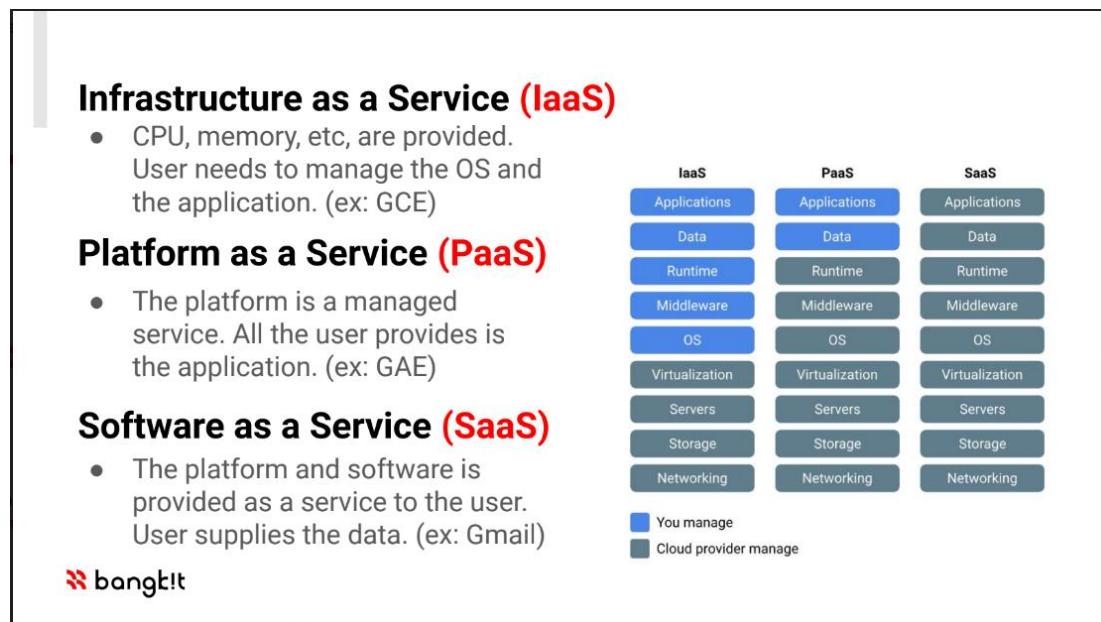
bangkit

Gambar 22 ILT TECH 2

3. ILT Tech 3

Meet ini Dimulai pada Minggu Ke -6

Pada ILT Tech 3 Kami Diberikan Penjelasan dan adanya sesi tanya jawab langsung dari professional Lead by Trisna Gelar Abdillah



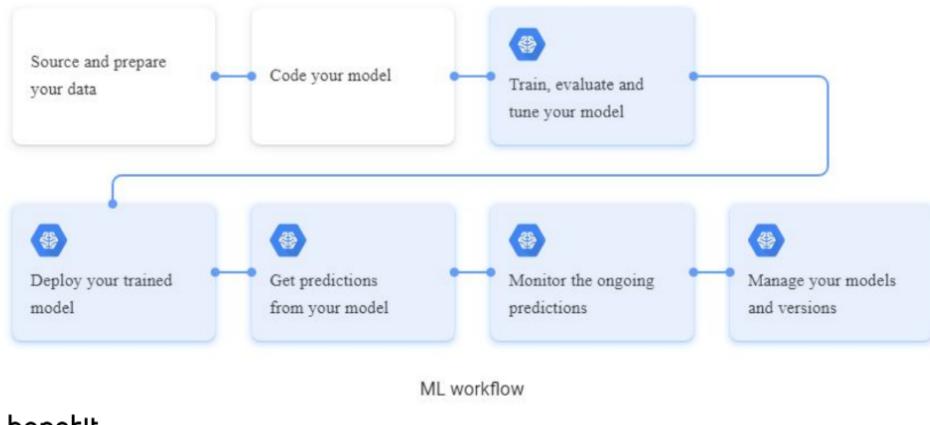
Gambar 23 ILT TECH 3

4. ILT Tech 4

Meet ini Dimulai pada Minggu ke -8

Pada ILT Tech 4 Kami Diberikan Penjelasan dan adanya sesi tanya jawab langsung dari professional Lead by Indra Bangsawan

Where AI Platform fits in the ML workflow?



Gambar 24 ILT TECH 4

5. ILT Tech 5

Meet ini Dimulai pada Minggu ke -10

Pada ILT Tech 5 Kami Diberikan Penjelasan dan adanya sesi tanya jawab langsung dari professional Lead by Indra Bangsawan

Tools Included in the Google Cloud Operations Suite



Monitoring

Platform, system & app metrics
Uptime/Health Checks
Dashboards
Alerts



Logging & Error Reporting

Platform, system & app logs
Log search/view/filter
Logs-based metrics
Error Notification
Error Dashboard



Trace, Debugger, Profiler

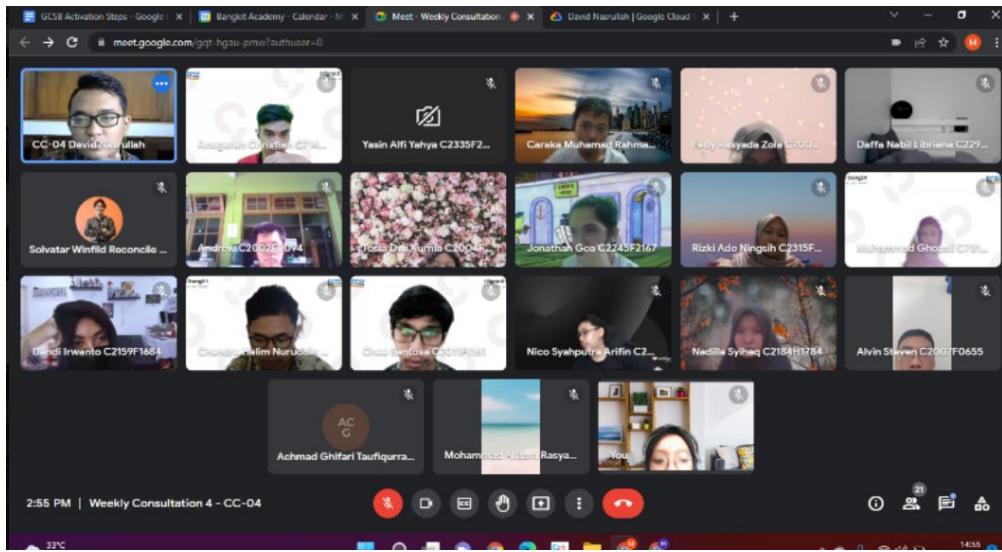
Latency reporting
Production debug snapshots
Conditional snapshots
IDE integration
Continuous profiling of CPU & Memory



Gambar 25 ILT TECH 5

Weekly Consultation

Mengenai Weekly Consultation, Peserta akan berdiskusi dengan fasil, mengenai kesulitan, progress dan tanya tentang path nya terkadang malah bebas membahas Topik Out the box

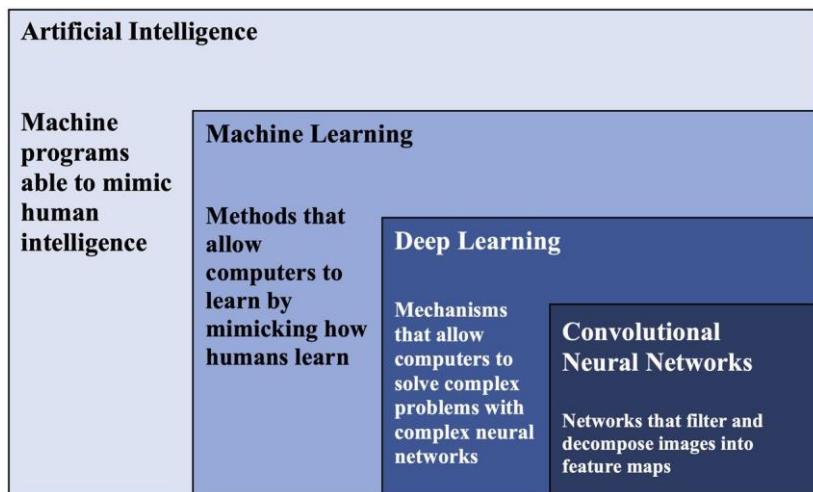


Gambar 26 Weekly Consultation

3.2 Gambaran Permasalahan

Seseorang Dijaman ini terutama anak muda ingin sekali mempunyai kondisi kulit yang bagus, dan terawat dengan itu seseorang akan membeli berupa facial skin, skin care dan perawatan lainnya, akan tetapi seseorang itu terkadang tidak tau kondisi kulitnya dan tidak yakin, dan juga beberapa malas jika ingin mengecek ke dokter kulit, ataupun karna takut jika ke dokter kulit harganya mahal. Terkadang ada juga karna tempat didaerahnya jauh dengan dokter kulit.

Maka kami Membuat sebuah aplikasi yang dapat menyelesaikan permasalahan tersebut dengan menggunakan Kecerdasaan Buatan (Ai) dan di susun menggunakan Mechine Learning dengan Menggunakan Deep Learning dan Metode yang dipakai Yaitu Neural Network. Dan Aplikasi ini Dinamakan Healthlens



Gambar 27 Ai Diagram

3.3 Penyelesaian Project

Dalam satu kelompok capstone project terdapat 6 orang anggota yaitu.

No	Nama	Universitas	Path
	Miftahul Ardli	Universitas Padjadjaran	Machine learning
	Ni Luh Melika Candra Widyani Mas	Universitas Katolik Parahyangan	
	Tegar Naufal Hanip	Universitas Gunadarma	Mobile Development
	Vinna Mariska	Universitas Gunadarma	
	Alvin Steven	Universitas Dian Nuswantoro	Cloud Computing
	Muhammad Alwi Abdul Aziz	Universitas Dian Nuswantoro	

Table 1 Team Project Healthlens

Dalam Machine Learning

Membuat Machine Learning Model Image Classification menggunakan TensorFlow dan Numpy Sebagai Library Utama, Dengan Menggunakan Metode Neural Network yang bertugas mempelajari Pola pola yang terdiri dataset dan secara mandiri atau otomatis ,dan Miftahul ardi juga menambah Inception V3 sebagai Fitur Transfer Learning agar Image Detection dan hasilnya lebih akurat.

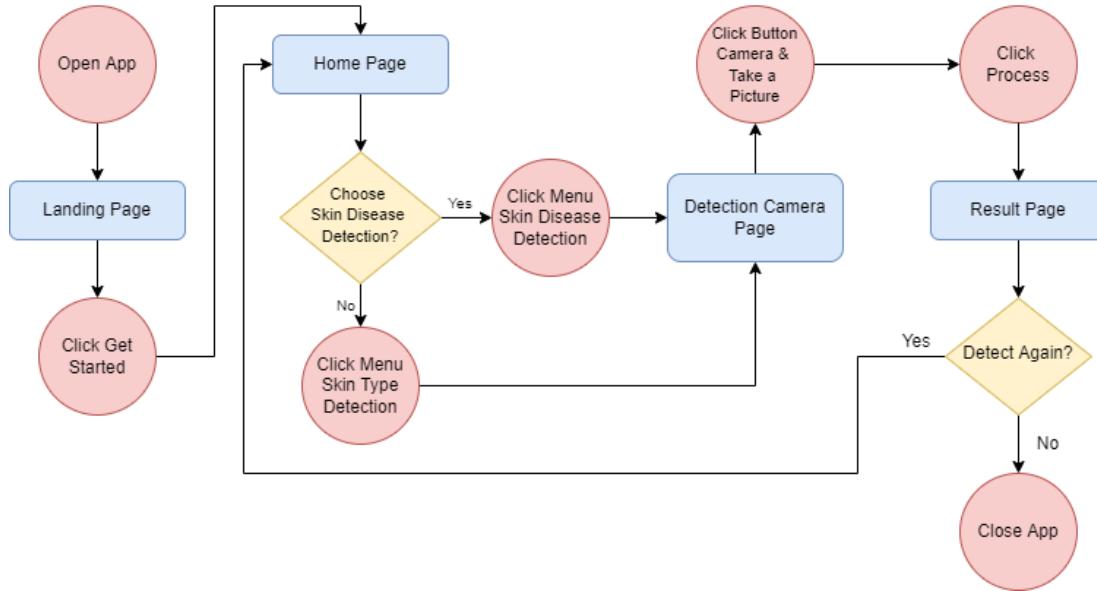
Dalam Cloud Computing

Kami Mendesain Dan Membangun Infrastruktur Terkait Server yang paling sesuai untuk Mendeploy Machine Learning, dataset, setelah itu Kami Membuat API Menggunakan FLASK guna sebagai koneksi antar aplikasi android ke Server Machine Learningnya. Selain itu kami membuat monitoring agar bisa melihat status server

Dalam Mobile Development

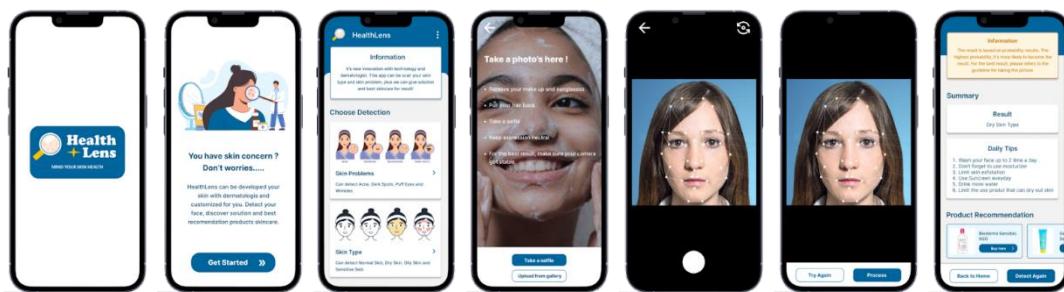
Bertugas Membuat aplikasi android menggunakan android studio dan Bahasa yang dipakai yaitu Kotlin. Diaplikasi pengguna dapat mendekripsi jenis kulit dan proses kulit Anda yang terhubung API yang didapat dari Cloud Computing. Hasil dari deteksi akan ditampilkan kepada pengguna. Halaman hasil seperti : result skin, daily tips dan rekomendasi produk.

3.3.1 User Flow Mobile Development



Gambar 28 User Flow Mobile Development

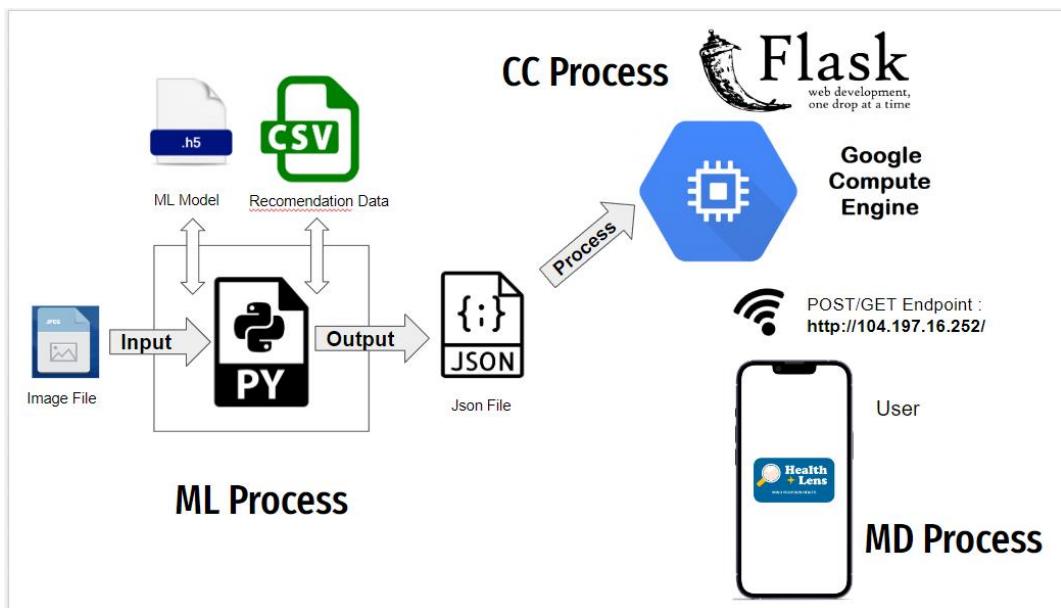
3.3.2 Tampilan Android Appsnya



Gambar 29 Application Demo Photos

3.3.3 Cloud Computing

Desain Infrastruktur dan flow

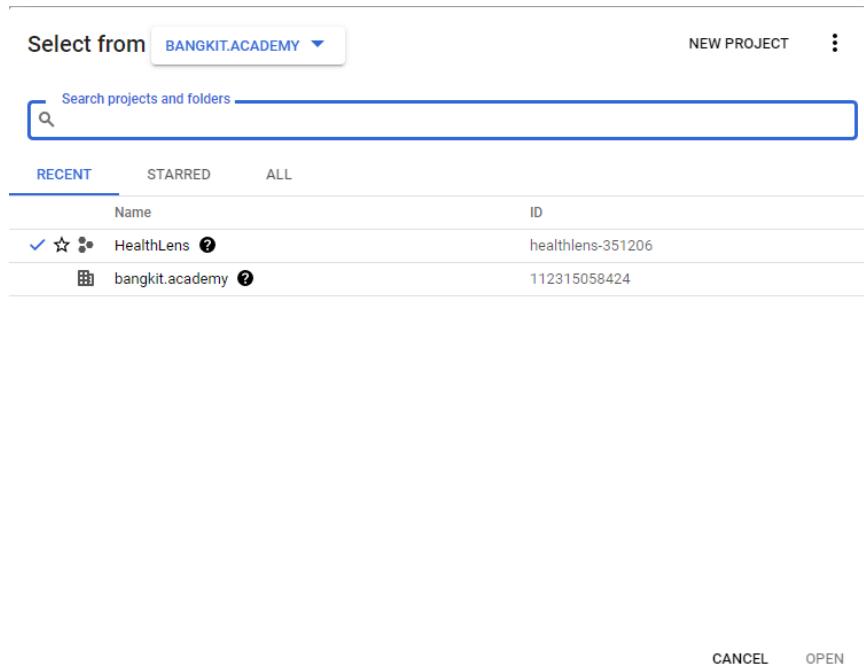


Gambar 30 Design Infrastructur and Flow

Alur Deploy. MI Model yang sudah dibuat kemudian dideploy Ke Compute Engine setelah itu kami membuat API dengan Flask sebagai result nya berupa JSON. API Endpoint Sebagai Koneksi Agar Android bisa mengirimkan data ke server dan server akan Memost ke Aplikasi android nya dan Monitoring Server

Cloud Computing

Pembuatan Project Healthlens di GCP (Google Cloud Platform)



Gambar 31 Project GCP

Vm Virtual Machine

Alasan Kami menggunakan Vm karna kami mempunyai masalah di library Mlnya, kita telah mencoba menggunakan Serverless, mulai dari cloud run, App Engine. Tetapi keduanya itu gagal karna ada masalah diliibrary. Maka dari itu kami menggunakan Virtual Mechine, dan manfaat Virtual Machine salah satunya menginstal Library Costum. Akan tetapi jika missal capstone diperpanjang kami lebih baik mencobanya lagi menggunakan Kubernetes Engine, dengan metode container. Kubernetes engine merupakan layanan cloud, yang mengelola aplikasi kedalam container container dan container tersebut bakal dimasukan ke Cluster Server yang mana nantinya bakal dipisahkan sesuai tugas aplikasinya tersebut. Dan hal ini kubernetes engine mempunyai kelebihan yaitu load balancing (jika beban terlalu banyak maka server secara otomatis memperbesar kapasitas dari mulai hardware sampai storage), automate roll outs, dan Roll Back Apabila terjadi kendala maka kitab isa mengembalikan deploy aplikasi ke sebelumnya, dan kita bisa melakukan trial deployment aplikasi juga,. Kemudian bisa Self Healing self healing pada kubernetes engine memberi manfaat seperti pengecekan 24 jam pada container app, dan juga otomatis mengganti container

yang rusak atau error dengan container yang lain. Dan bagusnya lagi traffic pengguna tidak akan dialihkan ke container yang rusak.

Healthlens Server Requirement

Selanjutnya Saya Meminta Team ML untuk memberikan pendapat tentang library yang dibutuhkan untuk Menjalankan MI Model nya dan berdiskusi dengan Aziz Mengenai Requirement Hardwarenya

Requirement Hardware

Tipe Machine : n1-standard-1

Zona : us-central1-a
Storage : 100 GB
RAM : 3.75
GHz : 1

Table 2 Requirement

Requirement Library

```
absl-py==1.1.0
astunparse==1.6.3
attrs==21.4.0
Automat==20.2.0
cachetools==5.2.0
certifi==2022.5.18.1
charset-normalizer==2.0.12
click==8.1.3
colorama==0.4.4
constantly==15.1.0
construct==2.10.68
flash==1.0.3
```

```
Flask==2.1.2
flatbuffers==1.12
gast==0.4.0
google-auth==2.6.6
google-auth-oauthlib==0.4.6
google-pasta==0.2.0
grpcio==1.46.3
h5py==3.7.0
hyperlink==21.0.0
idna==3.3
incremental==21.3.0
itsdangerous==2.1.2
Jinja2==3.1.2
jsonify==0.5
keras==2.8.0
keras-nightly==2.10.0.dev2022060207
Keras-Preprocessing==1.1.2
libclang==14.0.1
Markdown==3.3.7
MarkupSafe==2.1.1
numpy==1.22.4
oauthlib==3.2.0
opt-einsum==3.3.0
packaging==21.3
pandas==1.4.2
Pillow==9.1.1
ply==3.11
protobuf==3.19.4
pyasn1==0.4.8
pyasn1-modules==0.2.8
pycryptodomex==3.14.1
```

```
pyparsing==3.0.9
pysmi==0.3.4
pysnmp==4.4.12
python-dateutil==2.8.2
pytz==2022.1
PyYAML==6.0
requests==2.27.1
requests-oauthlib==1.3.1
rsa==4.8
six==1.16.0
tb-nightly==2.10.0a20220602
tensor==0.3.6
tensorboard==2.9.0
tensorboard-data-server==0.6.1
tensorboard-plugin-wit==1.8.1
tensorflow==2.9.1
tensorflow-cpu==2.9.1
tensorflow-estimator==2.9.0
tensorflow-io-gcs-filesystem==0.26.0
termcolor==1.1.0
tf-estimator-nightly==2.10.0.dev2022060208
tf-nightly==2.10.0.dev20220602
Twisted==22.4.0
twisted-iocpsupport==1.0.2
typing_extensions==4.2.0
urllib3==1.26.9
Werkzeug==2.1.2
wrapt==1.14.1
zope.interface==5.4.0
```

Gambar 32 Table 1 Requirement

VM Server Healthlens

The screenshot shows the Google Cloud VM instances page. On the left, there's a sidebar with 'Compute Engine' selected, showing 'Virtual machines', 'Storage', 'Disks', 'Snapshots', 'Images', and 'Instance groups'. The main area has tabs for 'INSTANCES' and 'INSTANCE SCHEDULES'. Under 'INSTANCES', it says 'VM instances are highly configurable virtual machines for running workloads on Google infrastructure.' Below this is a table with one row:

Status	Name	Zone	Recommendations	In use by	Internal IP	External IP	Connect
Green circle	healthlens-server	us-central1-a			10.128.0.2 (nic0)	35.225.146.105 (nic0)	SSH

To the right, there's a 'Select an instance' dropdown with 'Please select at least one resource.' and tabs for 'PERMISSIONS', 'LABELS', and 'MONITORING'.

Gambar 33 VM Server Healthlens 1

Firewall Healthlens

The screenshot shows the Google Cloud Firewall rules page. On the left, there's a sidebar with 'VPC network' selected, showing 'VPC networks', 'IP addresses', 'Bring your own IP', and 'Firewall'. The main area has tabs for 'Firewall', 'CREATE FIREWALL RULE', 'REFRESH', 'CONFIGURE LOGS', and 'DELETE'. A message says 'You don't have required permissions: compute.organizations.listAssociations to view the firewall policies inherited by this project.' Below this is a table with two rows:

Name	Type	Targets	Filters	Protocols / ports	Action	Priority	Network	Logs	Hit count	Last hit
default-allow-http	Ingress	http-server	IP ranges: 0.0.0.0/0	tcp:80	Allow	1000	default	Off	—	—
default-allow-https	Ingress	https-server	IP ranges: 0.0.0.0/0	tcp:443	Allow	1000	default	Off	—	—

Gambar 34 Firewall Healthlens

Firewall ini berfungsi agar Healthlens-Server dapat diakses dengan internet, dengan port nya 8080, 443, dan 80

3.4 Code API Flask

```

# app.py > ml
1 #from werkzeug import secure_filename
2 from distutils.log import debug
3 from email import message
4 from sre_constants import SUCCESS
5 from flask import Flask, render_template, request, url_for, flash, redirect, json, jsonify
6 from grpc import Status
7
8 app = Flask(__name__)
9
10 @app.route('/upload', methods=['GET', 'POST'])
11 def home():
12     if request.method == 'POST':
13         f = request.files['picture_path'] #get files from upload
14         f.save(f.filename) #save file to server
15         kind_model = request.form['kind_model']
16         picture_path = f.filename #nama file picture yang diupload ke server
17         import model_reader_data
18         #json.dumps({'success':True}), 200, {'ContentType':'application/json'}
19         return model_reader_data.model_reader_data(kind_model, picture_path)
20     else:
21         return render_template('index.html')
22
23
24
25 @app.route('/result/<string:id>', methods=['GET', 'POST'])
26 def ml(id):
27     import json
28     #kind_model = request.form("kind_model")
29     id_predict = id # http localhost/result/id
30     with open("result_json/"+str(id_predict)+".json") as json_file:
31         json_object = json.load(json_file)
32     return jsonify(json_object)
33
34 @app.route('/result', methods=['GET'])
35 def postdata():
36     import json
37     #kind_model = request.form("kind_model")
38     id_predict = request.args.get("id") #url http /localhost/result?id=...
39     with open("result_json/"+str(id_predict)+".json") as json_file:
40         json_object = json.load(json_file)
41     return jsonify(json_object)
42 if __name__ == '__main__':
43     app.run(debug=True)

```

Gambar 35 Code API

Disini Saya Mmebuat API Endpoint Menggunakan Flask yang Berbasis Bahasa Python

Halaman Upload

Kemudian Saya Membuat Tampilan Depannya dengan sederhana

```
templates > index.html > head > main.form-post
1  <!doctype html>
2  <html lang="en">
3  | <head>
4  | <main class="form-post">
5  |   <form action="/upload" method="POST" enctype="multipart/form-data">
6
7    <h1 class="h3 mb-3 fw-normal">Image Clasification Healthlens</h1>
8
9    <div class="form-floating">
10      <!-- <input type="text" name="kind_model" class="form-control" id="floatingInput">
11      <label for="floatingInput">kind_model</label> -->
12      <input type="radio" id="type" name="kind_model" value="type">
13      <label for="type">Type Wajah</label><br>
14      <input type="radio" id="disease" name="kind_model" value="disease">
15      <label for="disease">Penyakit Wajah</label>
16    </div>
17    <div class="form-group">
18      <label for="exampleFormControlFile1">Input Foto</label>
19      <input type="file" name="picture_path" id="exampleFormControlFile1">
20    </div>
21    <br>
22    <button class="w-100 btn btn-lg btn-primary" type="submit">Submit</button>
23  </form>
24  </main>
25
26  </body>
27
28 </html>
```

Gambar 36 Halaman Upload

Pada halaman ini saya membuat ini alasannya agar bisa digunakan sebagai test langsung, di halaman web. Dan test bisa menggunakan metode Postman juga

API GCP Yang Digunakan

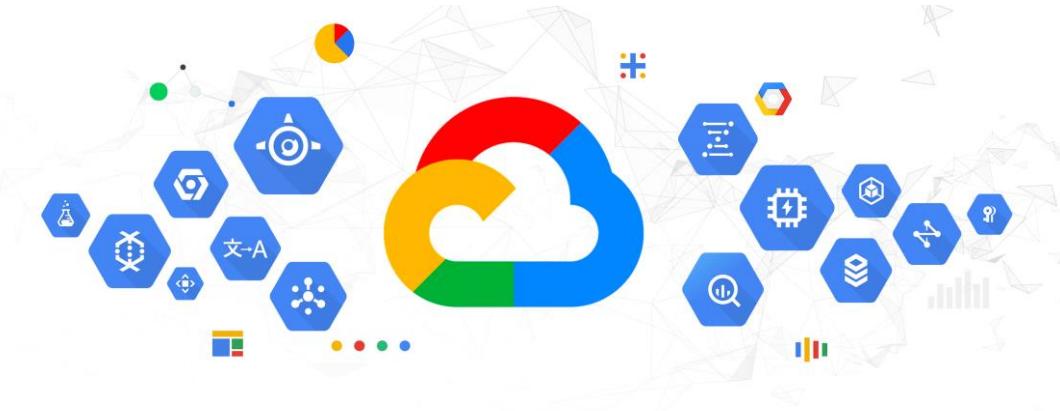
Filter Filter

Name	↓ Requests	Errors (%)	Latency, median (ms)	Latency, 95% (ms)
Compute Engine API	11,239	3	357	942
Cloud Run Admin API	1,055	0	51	123
Cloud Logging API	315	0	91	128
Artifact Registry API	29	0	54	119
BigQuery API				
BigQuery Migration API				
BigQuery Storage API				
Cloud Build API				
Cloud Datastore API				
Cloud Debugger API				
Cloud Deployment Manager V2 API				
Cloud Monitoring API				
Cloud OS Login API				
Cloud Pub/Sub API				
Cloud SQL				
Cloud Storage				
Cloud Storage API				
Cloud Tasks API				
Cloud Trace API				
Container Registry API				
Google App Engine Flexible Environment				
Google Cloud Storage JSON API				
Maps SDK for Android				
Notebooks API				
Secret Manager API				

Gambar 37 APi GCP 1

3.5 Detail Informasi Dan Teori

3.5.1 Google Cloud Platform



Gambar 38 Google Cloud Platform

Google Cloud Platform GCP adalah vendor cloud publik — seperti pesaing Amazon Web Services (AWS) dan Microsoft Azure. Dengan GCP dan vendor cloud lainnya, pelanggan dapat mengakses sumber daya komputer yang disimpan di pusat data Google di seluruh dunia secara gratis atau berdasarkan pembayaran per penggunaan.

GCP menawarkan rangkaian layanan komputasi untuk melakukan segalanya, mulai dari pengelolaan biaya GCP hingga pengelolaan data hingga pengiriman web dan video melalui web hingga AI dan alat pembelajaran mesin.

3.5.2 Compute Engine

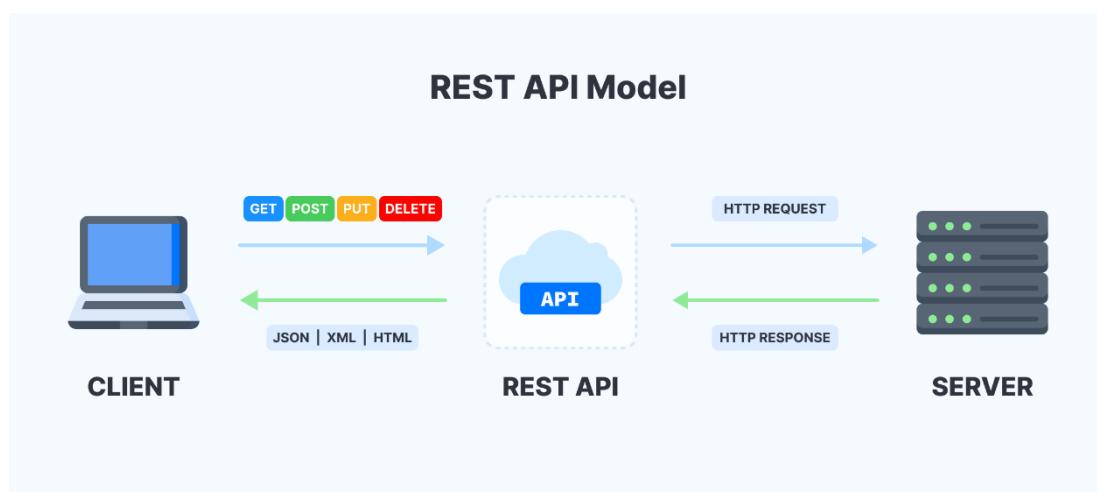


Gambar 39 Compute Engine

Google Compute Engine merupakan layanan yang menyediakan virtual machine (VM) yang ada pada infrastruktur Google. Anda dapat membuat VM dengan berbagai konfigurasi dan sejumlah operating system (OS) pilihan. Data dari VM yang anda buat

atau biasa disebut dengan VM instances akan disimpan di persistent block storage. Data tersebut akan direplikasi secara otomatis. Hal tersebut dimaksudkan jika Anda ingin mengembalikan Compute Engine instances yang telah di-terminate, atau jika terjadi bencana alam yang mengenai salah satu data center Google data anda masih tersedia dan layanan tidak terganggu. Network dari VM sendiri dapat dikonfigurasi sehingga memungkinkan komunikasi antar VM, komunikasi dengan internet, atau dengan private network yang anda miliki.

3.5.3 Restfull APi



Gambar 40 RESTful APi

RESTful API merupakan implementasi dari API (Application Programming Interface). Sedangkan pengertian dari REST (Representational State Transfer) adalah suatu arsitektur metode komunikasi yang menggunakan protokol HTTP untuk pertukaran data dan metode ini sering diterapkan dalam pengembangan aplikasi.

3.5.4 Flask



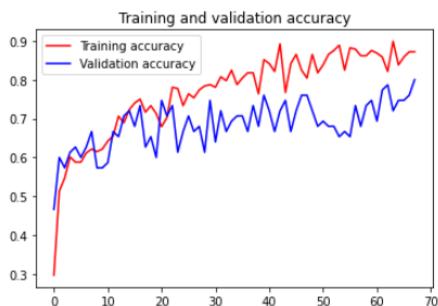
Gambar 41 Flask

Flask adalah micro framework dalam bahasa python. Flask tidak memiliki database abstraction layer, validasi form, atau komponen lain di mana sudah ada pustaka pihak ketiga yang menyediakan fungsi umum. Namun, Flask mendukung ekstensi yang dapat menambahkan fitur aplikasi seolah-olah mereka diimplementasikan dalam Flask itu sendiri. Ekstensi yang ada untuk object-relational mapper, validasi form, penanganan unggahan, berbagai teknologi otentikasi terbuka, dan beberapa alat-lata yang terkait kerangka umum. Ekstensi diperbarui jauh lebih teratur daripada inti program Flask. Flask dikenal Cocok dalam Pembuatan Restful APi yang akan Digunakan Sebagai Project Healthlens

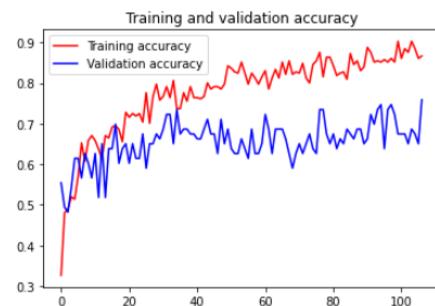
3.6 Analisa Pencapaian Project

3.6.1 Pencapaian Project kita dalam Tingkat Akurasi ditemukan

Result: Training Accuracy



80% Validation Accuracy - Skin Type Model



75% Validation Accuracy - Skin Disease Model

Gambar 42 Result Traininng

Pada fitur healthlens terdiri dari 2 fitur yaitu fitur Skin Type Model yang mana bertujuan untuk menscan wajah dan mengklasifikasikan nya kedalam 4 jenis, yaitu tipe oil, sensitive, normal, dan tipe kering, dan kemudian Skin Diseases model mempunyai 4 jenis juga yaitu, berjerawat, bitnik hitam, kerutan dan Mata Panda

Pada Fitur Skin Type Model, mempunyai akurasi 80% karna dataset yang ada jumlahnya terbatas, berjumlah 200 gambar, dan yang direkomendasikan oleh mentor yaitu 500 gambar hingga 1000 gambar, dan jika dataset semakin banyak maka nilai akurasi pada Skin type model akan lebih tinggi,

Dan pada Fitur Skin Deases Model, mempunyai masalah yang sama dengan Fitur Skin Type Model, yaitu dataset nya terbatas

Terkait akurasi, sebelum mencapai akurasi yang di gambar, kami mendapatkan 65% akan tetapi kami menemukan metode inception V3 yang bertujuan mempelajari pola pola gambar secara otomatis, dan cepat. Maka hal itu meningkatkan hingga 80 % pada Skin type Model dan 75% pada Skin Diseases Model

3.6.2 Result API Endpoint

Endpoint POST

← → ⌂ Not secure | 34.68.71.176/upload

Image Classification Healthlens

Type Wajah
 Penyakit Wajah

Input Foto 7526b79a-a...c03_43.jpeg

Submit

Gambar 43 Endpoint Post

Request Body berupa

1. Type Detection
2. Photo File

Lalu Responnya Berupa

← → ⌂ Not secure | 34.68.71.176/upload

```
{  
  "error": false,  
  "id": "1654433337",  
  "message": "success"  
}
```

6/6/2022

Gambar 44 Endpoint Response

- error = boolean

- message = string
- id = string (sebagai identitas Json yang akan di Post)

3.6.3 Endpoint Get Data

```
{
  "error": false,
  "id": "1654433337",
  "message": "success",
  "productlist": [
    {
      "linkProduct": "https://www.tokopedia.com/watsons/bioderma-sensibio-eye-contour-gel-15ml?extParam=lvf%3Dfalse%26src%3Dsearch",
      "name": "Bioderma Sensibio Eye Contour Gel",
      "photo": "http://34.68.71.176/Gambar/23_Puff Eyes/1.png"
    },
    {
      "linkProduct": "https://www.tokopedia.com/bueno/white-lab-skincare-perawatan-wajah-tubuh-white-lab-niacinamide-collagen-facial-wash?src=topads",
      "name": "WhiteLab Eye Cream",
      "photo": "http://34.68.71.176/Gambar/23_Puff Eyes/2.png"
    },
    {
      "linkProduct": "https://shopee.co.id/REAL-WHITE-Intensive-Whitening-Lifting-Repair-Eye-Cream-BPOM-HALAL-Skincare-Krim-Kantong-Lingkar-Hitam-Mata-Panda-Eyes-Garis-Mulus-Penuaan-Juncos-Anti-Aging-Skin-Care-Produk-Perawatan-Wajah-Kecantikan-Kulit-Spirulina-Karneol-Klinik-Dokter-i.349337394.388048571",
      "name": "REAL WHITE Intensive Whitening Lifting Repair Eye Cream",
      "photo": "http://34.68.71.176/Gambar/23_Puff Eyes/3.png"
    },
    {
      "linkProduct": "https://shopee.co.id/EYE-TREATMENT-SEBUM-MS-GLOW-1.172471447.5115343530",
      "name": "EYE TREATMENT SERUM MS GLOW",
      "photo": "http://34.68.71.176/Gambar/23_Puff Eyes/4.png"
    },
    {
      "linkProduct": "https://shopee.co.id/wardah-official/wardah-renew-you-anti-aging-eye-cream-10-ml-krim-mata",
      "name": "Wardah Renew You Anti Aging Eye Cream",
      "photo": "http://34.68.71.176/Gambar/23_Puff Eyes/5.png"
    },
    {
      "linkProduct": "https://shopee.co.id/Garnier-Eye-Serum-Mask-1.140789817.6753804367",
      "name": "Garnier Eye Serum Mask",
      "photo": "http://34.68.71.176/Gambar/23_Puff Eyes/6.png"
    }
  ],
  "rekomendationList": [
    "Kompres mata dengan es batu",
    "Menghindari kosmetik alkohol",
    "Mengompres dengan kantong teh celup",
    "Mencukupi kebutuhan cairan dalam tubuh",
    "Gunakan krim mata secara rutin",
    "Tidur yang cukup (minimal 4 - 5 jam)"
  ],
  "resultDetection": "Puff eyes"
}
```

Gambar 45 Endpoint Ger Data

Request Body:

- id = string
- typeDetection = string

Response (Tipe data):

- error = boolean
- message = string
- resultDetection = string
- recommendationList = list
 - recommendation = string
- productList = list
 - photo = string
 - name = string
- linkProduct = string

Gambar Endpoint MD 1

3.6.4 Pencapaian Project Healthlens

Masuk 50 Besar Semi Final dari 380 Teams Capstone

List of Top 53 Product Capstone - Bangkit 2022		
TeamID	Project Title	Theme
C22-PS001	Vee: Vehicle Management	Mobility & Smart City
C22-PS003	Thisable	Women Empowerment, Child Protection, and Accessibility
C22-PS025	Yourney	Tourism, Creative, and Digital Economy
C22-PS030	Serantau: Sahabat Setia Anak Rantau	Tourism, Creative, and Digital Economy
C22-PS038	DressOnMe	Tourism, Creative, and Digital Economy
C22-PS056	ArtNesia	Tourism, Creative, and Digital Economy
C22-PS057	Rebage - Reduce Reuse Recycle Your Garbage	Environmental Conservation, Disaster Resilience and Climate Changes
C22-PS072	Fic-o'-Fit	Human Healthcare & Animal Welfare
C22-PS078	SIBISA	Education, Training, Upskilling & Research (including Competitive Human Resources)
C22-PS079	Ambroise - Virtual Hairstyle and Smart Barber Application	Economic & Social Resilience (including agricultural & food security and sustainability, infrastructure, & regional development)
C22-PS088	Sa Lindungi: Conservation, Education and Donation in One Application for Endangered Animals in Indonesia	Human Healthcare & Animal Welfare
C22-PS093	FiShku (Distribution system of Marine Fish Caught by Fishermen for Sale to Consumers Based on a Mobile App)	Tourism, Creative, and Digital Economy
C22-PS094	Nawara	Women Empowerment, Child Protection, and Accessibility
C22-PS104	HEYPET (The Animal Welfare Sector's Community Platform which Facilitates Interaction between Pet Owners)	Human Healthcare & Animal Welfare
C22-PS108	Peduli Bicara	Education, Training, Upskilling & Research (including Competitive Human Resources)
C22-PS111	Trashub	Environmental Conservation, Disaster Resilience and Climate Changes
C22-PS127	Online Grocery for Imperfect Agricultural Products at Affordable Prices	Economic & Social Resilience (including agricultural & food security and sustainability, infrastructure, & regional development)
C22-PS134	Circle	Human Healthcare & Animal Welfare
C22-PS135	HealthLens, Mind Your Skin Health	Human Healthcare & Animal Welfare
C22-PS138	Kulinerln	Tourism, Creative, and Digital Economy
C22-PS141	Mevel (Meet & Travel)	Tourism, Creative, and Digital Economy
C22-PS143	TuRu (Translator Tuna Rungu)	Character-Building & Community Empowerment
C22-PS160	IAGA	Women Empowerment, Child Protection, and Accessibility

Gambar 46 Healthlens Top List 50 Best

3.6.5 Dokumentasi File

[Github C22-PS135](#)

The screenshot shows a GitHub repository interface. At the top, there is a navigation bar with 'main' and 'Capstone-Project-C22-PS135 / CC /'. On the right side of the header are buttons for 'Go to file', 'Add file', and three dots. Below the header is a list of files and their details:

File	Description	Last Commit
helloaziz Final Build		2ce1f47 on Jun 7 · History
...		
Gambar	daadad	last month
templates	Final Build	last month
data_produk.csv	123ERFGHJ	last month
data_rekomendasi.csv	daadad	last month
main.py	Final Build	last month
model_reader_data.py	Final Build	last month
requirements.txt	dasasa	last month

Dokumentasi Project Deadline 1

BAB IV

PENUTUP

Dari Hasil implementasi Project Healthlens dan Arsitektur Cloud Computing , terdapat beberapa poin kesimpulan dan saran pada Laporan Bangkit Academy ini, Diantaranya adalah :

4.1 Kesimpulan

1. Perancangan Server Infrastructur Backend ini Menggunakan Flask Dengan library Jsonify. Proses Deployment ML Model Ke Compute Engine Menggunakan Library TensorFlow , Numpy, Keras. Hasil Pengujian Akurasi ML Model Menunjukan 80% Pada Skin type Model dan 75% Skin Deases Model
2. Hasil Implementasi dari arsitektur Cloud Computing adalah sebuah compute engine yang memiliki 11ayanan aplikasi yang berjalan didalamnya, yaitu layanan aplikasi Backend berupa endpoint API yang terhubung dengan ML Model.

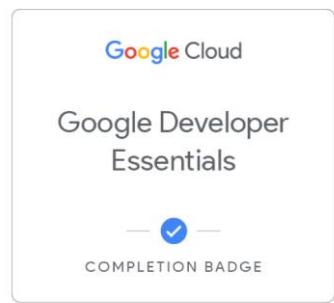
4.2 Saran

1. Kemampuan akurasi yang kecil dikarenakan jumlah datasetnya hanya 200 gambar, dan perlu penambahan dataset sebanyak min 1000 agar bisa menambah akurasi MI Modelnya.
2. Proses Deployment MI Model pada Arsitektur Cloud Computing Sebaiknya menambahkan Load balancing dan autoscaling agar beban kerja pada server dapat lebih optimal dan tidak overload jika terlalu banyak menangani permintaan user

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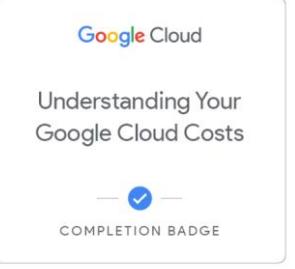
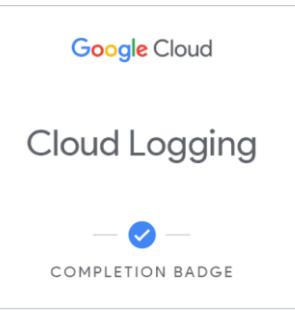
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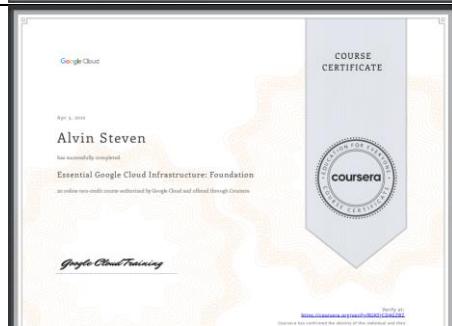
No	Deskripsi	Hasil/Bukti
1	Belajar Dasar Pemrograman Web	 <p>SERTIFIKAT KOMPETENSI KELULUSAN</p> <p>dicoding</p> <p>L4PQ3VDDVPOI</p> <p>Diberikan kepada</p> <p>ALVIN STEVEN</p> <p>Atas kelulusannya pada kelas</p> <p>Belajar Dasar Pemrograman Web</p> <p>20 Februari 2022</p> <p><i>Narendi Wicaksono</i> Narendi Wicaksono Chief Executive Officer Dicoding Indonesia</p> <p>SERTIFIKAT KOMPETENSI KELULUSAN</p> <p>dicoding</p> <p>KEKLSRURIPGZ</p> <p>Diberikan kepada</p> <p>ALVIN STEVEN</p> <p>Atas kelulusannya pada kelas</p> <p>Belajar Dasar Pemrograman JavaScript</p> <p>28 Februari 2022</p> <p><i>Narendi Wicaksono</i> Narendi Wicaksono Chief Executive Officer Dicoding Indonesia</p> <p>SERTIFIKAT KOMPETENSI KELULUSAN</p> <p>dicoding</p> <p>07Z5OVS3XQR</p> <p>Diberikan kepada</p> <p>ALVIN STEVEN</p> <p>Atas kelulusannya pada kelas</p> <p>Belajar Membuat Aplikasi Back-End untuk Pemula dengan Google Cloud</p> <p>14 Maret 2022</p> <p><i>Narendi Wicaksono</i> Narendi Wicaksono Chief Executive Officer Dicoding Indonesia</p> <p>Verifikasi Sertifikat dicoding.com/verifikasi/07Z5OVS3XQR Berlaku Hingga 28 Februari 2023</p> <p>Verifikasi Sertifikat dicoding.com/verifikasi/KEKLSRURIPGZ Berlaku Hingga 28 Februar 2022</p> <p>Verifikasi Sertifikat dicoding.com/verifikasi/07Z5OVS3XQR Berlaku Hingga 14 Maret 2022</p>
2	Belajar Dasar Pemrograman Javascript	 <p>SERTIFIKAT KOMPETENSI KELULUSAN</p> <p>dicoding</p> <p>KEKLSRURIPGZ</p> <p>Diberikan kepada</p> <p>ALVIN STEVEN</p> <p>Atas kelulusannya pada kelas</p> <p>Belajar Dasar Pemrograman JavaScript</p> <p>28 Februari 2022</p> <p><i>Narendi Wicaksono</i> Narendi Wicaksono Chief Executive Officer Dicoding Indonesia</p> <p>SERTIFIKAT KOMPETENSI KELULUSAN</p> <p>dicoding</p> <p>07Z5OVS3XQR</p> <p>Diberikan kepada</p> <p>ALVIN STEVEN</p> <p>Atas kelulusannya pada kelas</p> <p>Belajar Membuat Aplikasi Back-End untuk Pemula dengan Google Cloud</p> <p>14 Maret 2022</p> <p><i>Narendi Wicaksono</i> Narendi Wicaksono Chief Executive Officer Dicoding Indonesia</p> <p>Verifikasi Sertifikat dicoding.com/verifikasi/07Z5OVS3XQR Berlaku Hingga 28 Februari 2023</p> <p>Verifikasi Sertifikat dicoding.com/verifikasi/KEKLSRURIPGZ Berlaku Hingga 28 Februar 2022</p> <p>Verifikasi Sertifikat dicoding.com/verifikasi/07Z5OVS3XQR Berlaku Hingga 14 Maret 2022</p>
3	Belajar Membuat Aplikasi Back-End untuk Pemula dengan Google Cloud	 <p>SERTIFIKAT KOMPETENSI KELULUSAN</p> <p>dicoding</p> <p>07Z5OVS3XQR</p> <p>Diberikan kepada</p> <p>ALVIN STEVEN</p> <p>Atas kelulusannya pada kelas</p> <p>Belajar Membuat Aplikasi Back-End untuk Pemula dengan Google Cloud</p> <p>14 Maret 2022</p> <p><i>Narendi Wicaksono</i> Narendi Wicaksono Chief Executive Officer Dicoding Indonesia</p> <p>Verifikasi Sertifikat dicoding.com/verifikasi/07Z5OVS3XQR Berlaku Hingga 14 Maret 2022</p>
4	Google Developer Essentials	<p>Alvin Steven C2007F0655 has earned this award!</p> <p>View public profile for Alvin Steven C2007F0655</p>  <p>Google Cloud</p> <p>Google Developer Essentials</p> <p>—  —</p> <p>COMPLETION BADGE</p> <p>Google Developer Essentials Mar 28, 2022</p>

5	Implement DevOps In Google Cloud	<p>Alvin Steven C2007F0655 has earned this award! View public profile for Alvin Steven C2007F0655</p>  <p>Google Cloud</p> <p>Implement DevOps in Google Cloud</p> <p>APPLICATION MODERNIZATION SKILL</p> <p>Implement DevOps in Google Cloud Mar 30, 2022</p>
6	Build Interactive Apps With Google Assistant	<p>Alvin Steven C2007F0655 has earned this award! View public profile for Alvin Steven C2007F0655</p>  <p>Google Cloud</p> <p>Build Interactive Apps with Google Assistant</p> <p>APPLICATION MODERNIZATION SKILL</p> <p>Build Interactive Apps with Google Assistant Mar 30, 2022</p>
7	Build a Website on Google Cloud	<p>Alvin Steven C2007F0655 has earned this award! View public profile for Alvin Steven C2007F0655</p>  <p>Google Cloud</p> <p>Build a Website on Google Cloud</p> <p>INFRASTRUCTURE MODERNIZATION SKILL</p> <p>Build a Website on Google Cloud Mar 30, 2022</p>

8	Create and Manage Cloud Resource	<p>Alvin Steven C2007F0655 has earned this award! View public profile for Alvin Steven C2007F0655</p>  <p>Create and Manage Cloud Resources</p> <p>INFRASTRUCTURE MODERNIZATION SKILL</p> <p>Create and Manage Cloud Resources Apr 6, 2022</p>
9	Perform Foundational Infrastructure Task	<p>Alvin Steven C2007F0655 has earned this award! View public profile for Alvin Steven C2007F0655</p>  <p>Perform Foundational Infrastructure Tasks</p> <p>INFRASTRUCTURE MODERNIZATION SKILL</p> <p>Perform Foundational Infrastructure Tasks in Google Cloud Mar 27, 2022</p>
10	Perform Foundational Data, ML, and AI Tasks in Google Cloud	<p>Alvin Steven C2007F0655 has earned this award! View public profile for Alvin Steven C2007F0655</p>  <p>Perform Foundational Data, ML, and AI Tasks</p> <p>SMART ANALYTICS SKILL</p> <p>Perform Foundational Data, ML, and AI Tasks in Google Cloud Apr 8, 2022</p>
11	Set Up and Configure a Cloud Environment in Google Cloud	<p>Alvin Steven C2007F0655 has earned this award! View public profile for Alvin Steven C2007F0655</p>  <p>Set Up and Configure a Cloud Environment</p> <p>INFRASTRUCTURE MODERNIZATION SKILL</p> <p>Set Up and Configure a Cloud Environment in Google Cloud Apr 7, 2022</p>

12	Deploy and Manage Cloud Environments with Google Cloud	<p>Alvin Steven C2007F0655 has earned this award! View public profile for Alvin Steven C2007F0655</p>  <p>Deploy and Manage Cloud Environments</p> <p>INFRASTRUCTURE MODERNIZATION SKILL</p> <p>Deploy and Manage Cloud Environments with Google Cloud Apr 7, 2022</p>
13	Build and Secure Networks in Google Cloud	<p>Alvin Steven C2007F0655 has earned this award! View public profile for Alvin Steven C2007F0655</p>  <p>Build and Secure Networks</p> <p>SECURITY SKILL</p> <p>Build and Secure Networks in Google Cloud Apr 12, 2022</p>
14	Monitor and Log with Google Cloud Operations Suite	<p>Alvin Steven C2007F0655 has earned this award! View public profile for Alvin Steven C2007F0655</p>  <p>Monitor and Log with Google Cloud Operations Suite</p> <p>INFRASTRUCTURE MODERNIZATION SKILL</p> <p>Monitor and Log with Google Cloud Operations Suite May 6, 2022</p>
15	Cloud Architecture: Design, Implement, and Manage	<p>Alvin Steven C2007F0655 has earned this award! View public profile for Alvin Steven C2007F0655</p>  <p>Cloud Architecture: Design, Implement, and Manage</p> <p>INFRASTRUCTURE MODERNIZATION</p> <p>Cloud Architecture: Design, Implement, and Manage Apr 21, 2022</p>

16	Understanding Your Google Cloud Costs	<p>Alvin Steven C2007F0655 has earned this award! View public profile for Alvin Steven C2007F0655</p>  <p>Understanding Your Google Cloud Costs Apr 19, 2022</p>
17	Optimizing Your Google Cloud Costs	<p>Alvin Steven C2007F0655 has earned this award! View public profile for Alvin Steven C2007F0655</p>  <p>Optimizing Your Google Cloud Costs Apr 21, 2022</p>
18	Security & Identity Fundamentals	<p>Alvin Steven C2007F0655 has earned this award! View public profile for Alvin Steven C2007F0655</p>  <p>Security & Identity Fundamentals Apr 21, 2022</p>
19	Cloud Logging	<p>Alvin Steven C2007F0655 has earned this award! View public profile for Alvin Steven C2007F0655</p>  <p>Cloud Logging May 12, 2022</p>

20	Deploy to Kubernetes in Google Cloud	<p>Alvin Steven C2007F0655 has earned this award! View public profile for Alvin Steven C2007F0655</p>  <p>Deploy to Kubernetes HYBRID AND MULTI-CLOUD SKILL</p> <p>Deploy to Kubernetes in Google Cloud Apr 27, 2022</p>
21	Monitor and Log with Google Cloud Operations Suite	<p>Alvin Steven C2007F0655 has earned this award! View public profile for Alvin Steven C2007F0655</p>  <p>Monitor and Log with Google Cloud Operations Suite INFRASTRUCTURE MODERNIZATION SKILL</p> <p>Monitor and Log with Google Cloud Operations Suite May 6, 2022</p>
22	Google Cloud Fundamentals: Core Infrastructure specialization	 <p>Mar 21, 2022 Alvin Steven has successfully completed Google Cloud Fundamentals: Core Infrastructure an online non-credit course authorized by Google Cloud and offered through Coursera</p> <p>Google Cloud Training</p> <p>https://coursera.org/share/0E97D9C815 Coursera has confirmed the identity of this individual and they are entitled to this certificate.</p>
23	Essential Google Cloud Infrastructure: Foundation specialization	 <p>Apr 3, 2022 Alvin Steven has successfully completed Essential Google Cloud Infrastructure: Foundation an online non-credit course authorized by Google Cloud and offered through Coursera</p> <p>Google Cloud Training</p> <p>https://coursera.org/share/0E97D9C815 Coursera has confirmed the identity of this individual and they are entitled to this certificate.</p>

24	Essential Google Cloud Infrastructure: Core Services		
25	Elastic Google Cloud Infrastructure: Scaling and Automation		
26	Reliable Google Cloud Infrastructure: Design and Process		
27	Architecting with Google Compute Engine		
28	Preparing for Your Associate Cloud Engineer		

29	Meniti Karier sebagai Software Developer	 <p>A screenshot of a digital certificate from dicoding. The certificate is titled "Meniti Karier sebagai Software Developer". It is dated 11 July 2022 and signed by Norenda Wicaksono. A QR code is visible in the bottom right corner.</p>

Lampiran File Martikulasi

1	Belajar Dasar Git dengan GitHub	 <p>A screenshot of a digital certificate from dicoding. The certificate is titled "Belajar Dasar Git dengan GitHub". It is dated 05 Maret 2022 and signed by Norenda Wicaksono. A QR code is visible in the bottom right corner.</p>
2	Pengenalan ke Logika Pemrograman	 <p>A screenshot of a digital certificate from dicoding. The certificate is titled "Pengenalan ke Logika Pemrograman (Programming Logic 101)". It is dated 15 Maret 2022 and signed by Norenda Wicaksono. A QR code is visible in the bottom right corner.</p>

Lampiran Logbook

No	Minggu	Kegiatan
	Minggu Ke -1	<p>Apa yang kamu pelajari minggu ini? pemrograman web mulai dari html sebagai struktur data, css sebagai pengaya styling , dan javascript + flexbox hasil akhir saya mengirimkan hasil aplikasi web sebagai salah satu sarat mendapatkan sertifikat dicoding</p> <p> Senin 14 Feb 2022</p> <p>Apa yang kamu kerjakan hari ini? di pagi yang cerah dan dijam 10 bangkit academy melakukan program pembukaan yang mana disiarkan langsung di youtube video nya sangat memberikan motivasi untuk kami dan yang ikut terlibat thanks bangkittt</p> <p> Selasa 15 Feb 2022</p> <p>Apa yang kamu kerjakan hari ini? hari selasa saya mendapatkan token untuk mengambil pembelajaran pemrograman web dicoding wahh saya sangat bersemangattt ya ges yak</p> <p> Rabu 16 Feb 2022</p> <p>Apa yang kamu kerjakan hari ini? pembelajaran berlanjut wahhh semoga bisa tetap fokus</p> <p> Kamis 17 Feb 2022</p> <p>Apa yang kamu kerjakan hari ini? kamis kemarin kami masih dalam tahap belajar ya gak sabar agar bisa membuat web</p> <p> Jumat 18 Feb 2022</p> <p>Apa yang kamu kerjakan hari ini? hari ini saya akan membuat web untuk menyelesaikan tugas submission di dicoding</p>
	Minggu Ke -2	<p>Apa yang kamu pelajari minggu ini? Saya Mempelajari Javascript Basic guna mendapatkan sertifikat dicoding serta step untuk mengikuti program bangkit</p> <p> Senin 21 Feb 2022</p> <p>Apa yang kamu kerjakan hari ini? tgl senin, 21 feb 2022 saya mendapatkan token pemrograman javascript dasar, dan memulai di bagian pengenalanjavascript</p> <p> Selasa 22 Feb 2022</p> <p>Apa yang kamu kerjakan hari ini? hari selasa 22 feb, saya meneruskan pembelajaran javascript sampai dengan tipe data javascript seperti let, const array</p>

	<p> Rabu 23 Feb 2022</p> <p>Apa yang kamu kerjakan hari ini? 23 feb 2022 meneruskan pembelajaran javascript dasar sampai object oop object oop yaitu sebuah fungsi yang terdiri dari object dan method serta membuat class setelah itu mempelajari fungtional progaming, yaitu pemrograman berbasis function dan didalam fungsi bisa memanggil fungsi lain sebagai paraameter (higher order)</p> <p> Kamis 24 Feb 2022</p> <p>Apa yang kamu kerjakan hari ini? 24 feb saya mempelajari instalasi node js , kemudian mempelajari try and catch yaitu menampilkan kode error dan membuat program bisa tetap jalan</p> <p> Jumat 25 Feb 2022</p> <p>Apa yang kamu kerjakan hari ini? hari jumat saya mempelajari concurrency bagaimana membuat asyincronous yaitu menangani antrian yang banyak dan bagaimana bisa memproses antrian tersebut dengan cepat</p>
Minggu Ke -3	<p>Apa yang kamu pelajari minggu ini?</p> <p>i learn about javascript basic in dicoding.. how to learn preread time managemtn, and i attend in weekly consultation with Mr David Nasrullah as My mentor, then I Learn in youtube live With Topic Build Great startup lead Mr Immanuel. After That I join In ILT Session 1 with Mr Adrianus</p> <p> Senin 28 Feb 2022</p> <p>Apa yang kamu kerjakan hari ini? Monday 28 february, dicoding give me token about modul javascript basic, this module having learn about like introduce what is javascript, what javascript for, example javascript function, many function using javascript, example with calculactor can work using javascript, the will be continue loearning in tomorrow</p> <p> Selasa 1 Mar 2022</p> <p>Apa yang kamu kerjakan hari ini? in this morning, i have 2 calender schedule namely 1. pembekalan program student msib 2, this pembekalan give we about how to do in me program , many this ruler, other or logbook. since then i continue learning about javascript basic.</p>

	<p> Rabu 2 Mar 2022</p> <p>Apa yang kamu kerjakan hari ini? wendesday 9 am i join program pembekalan student msib day 2., that is great may learn many motivation give me in one of time the jurney. since that i get task about time management. i will read prebook for that in google classroom</p> <p> Kamis 3 Mar 2022</p> <p>Apa yang kamu kerjakan hari ini? Tuesday i got new certified about javascript basic. javascript basicly is brain in your body analogynya. many javascript things to do, and many this programer using javascript for help he to support he develop website,</p> <p> Jumat 4 Mar 2022</p> <p>Apa yang kamu kerjakan hari ini? friday the day of blessing, in the time i have 3 event in the day; 1. i will join weekly constulation lead by mentor Mr David Nasrullah. in this meeting we will be asked about your do in your day, did you get trouble, and of course in meeting we all playing game.. event 2. i join guest speaker by Mr Imanuel with topic How to build great startup. this make me, thinking different thankyou Mr immanuel. give me inspiration how to do. event 3. this is time with Topic ILT1SS this session lead by our instructor: Adrianus Yoza Aprilio</p> <p style="text-align: right;">sembunyikan</p>
Minggu Ke -4	<p>Apa yang kamu pelajari minggu ini?</p> <p>Learn Backend, build project with nodejs, how to routes, how to make request and response, how to use postman, how to test the project using postman, how to create account google cloud</p> <p> Senin 7 Mar 2022</p> <p>Apa yang kamu kerjakan hari ini? 7 March 2022, I follow the meeting bangkit, is containing about activities bangkit, rules and q n a from student, after that i follow the event english session (speaking correspondence) and the session lead by instructor Raphael Lewis from Philipin is containing about how to make greetings, how to use good conversation, how to reject and agree with that, i so very excited from English session and they give me new experience in english.</p> <p style="text-align: right;">sembunyikan</p> <p> Selasa 8 Mar 2022</p> <p>Apa yang kamu kerjakan hari ini? 8 march i get new token about backend dicoding indonesia, i apply token now, and be learn about what is backend how backend work? and the modul they are many information, like web service, server . and client server. web server is server can run the program and showing the program to internet, web service is program can be run for business needs . client server what is mean ? client server about request and response. example, the man request pizza. and the shop will be give pizza for man. this is simple example.</p> <p style="text-align: right;">sembunyikan</p>

	<p> Rabu 9 Mar 2022</p> <p>Apa yang kamu kerjakan hari ini? wednesday, for continues learn backend, me learn until Basic node.js for Backend also. i get many experience about node.js for beckend. like . what is global object and how to make it, also make modulation ,this is about make shortcut to many program, benefits make programming easy to read, and the program look very structur, after that i learn node package manager. this containing about how to instal package, how to make package and how to run it. and readable with writetable, how to read a file with js, and write media with js and make little modif for that, like limit read and make new read to write after that, the file will be available in output.txt</p> <p style="text-align: right;">sembunyikan</p> <p> Kamis 10 Mar 2022</p> <p>Apa yang kamu kerjakan hari ini? Wednesday, I experienced a lot of difficult things, my backend project notes have a lot of errors. I don't know where, maybe I need to take a break</p> <p> Jumat 11 Mar 2022</p> <p>Apa yang kamu kerjakan hari ini? on Friday there are 2 activities, namely weekly consultations, and I followed the contents of these activities, namely mentors answering questions from students, and unfortunately I wanted to ask but my connection was down, I don't like it.</p>
Minggu Ke -5	<p>Apa yang kamu pelajari minggu ini?</p> <p>i learn many many this how google cloud works, what is laas, paas, saas, and how to using bash terminal, then i learn how to make a server like web service, how to create firewall, connecting server in port http, after that i do quiz in modul, yeahh i get a new certified about google cloud fundamental</p> <p> Senin 14 Mar 2022</p> <p>Apa yang kamu kerjakan hari ini? Monday, I got a new assignment about google cloud, first we were given a tutorial on how to redeem credit for learning google cloud, the credit we got was 601 points, after getting the credit I continued learning about A Tour of Google Cloud Hands-on Labs</p> <p> Selasa 15 Mar 2022</p> <p>Apa yang kamu kerjakan hari ini? After completing A Tour of Google Cloud Hands-on Labs I continued about the google cloud fundamental path, first I listened to a video about the introduction of the Cloud Computing Fundamentals course and the objects we studied, then I learned what and how the cloud system works, and what Laas is about (Infrastructure as Service) Paas (Platform as Service) and SaaS (Software-as-a-service)</p>

Minggu Ke -6

 Rabu
16 Mar 2022

Apa yang kamu kerjakan hari ini?
wednesday 16 March, i am study about how billing in google cloud, installing sdk with gsutil , then try lab in modul cloud shell learn how to connect to computing resources hosted on Google Cloud via Cloud Shell with the gcloud tool.after that i am learn about google cloud Api this helped for Backend programmer

 Kamis
17 Mar 2022

Apa yang kamu kerjakan hari ini?
Tuesday ,firts i watch a video about what is Istance, Virtual Machines, Laas and Paas, after i watching they, i am continues to pratice in lab like make a instance virtual machines, can choise a zone you want, then i learn how to work auto scaling, auto scaling mean about auto adjustmen resource in your server is make you easy using resource

 Jumat
18 Mar 2022

Apa yang kamu kerjakan hari ini?
Friday the day of Bleesing, friday i learn many many this how to make a server like web service, how to create firewall, connecting server in port http, after that i do quiz in modul, yeahhh i get a new certified about google cloud fundamental thankss

 Senin
21 Mar 2022

Apa yang kamu kerjakan hari ini?
today, i countinue learn in course infrastructur google cloud computing, from introduce and learn what is iam-admin. Google Cloud IAM unifies access control for Cloud Platform services into a single system to present a consistent set of operations, and i am learn how to monitoring the vm virtual instance

 Selasa
22 Mar 2022

Apa yang kamu kerjakan hari ini?
tuesday, i continues learn infrastuctur, and practical how to use google plafom commandline in google cloud, use commandline to create and deploy feature google function, and i learn about google console

What does Google console do?

Google Search Console is a free service offered by Google that helps you monitor, maintain, and troubleshoot your site's presence in Google Search results. source from support.google.com

after that i learn again about Pub/sub is shorthand for publish/subscribe messaging, an asynchronous communication method in which messages are exchanged between applications without knowing the identity of the sender or recipient.

[sembunyikan](#)

	<p> Rabu 23 Mar 2022</p> <p>Apa yang kamu kerjakan hari ini? today is finally to finish cloud computing infrastructur, in infrastructur i learn many about google function from bucket and many videos explain and use very clearly, finally i got certified, and here is my certified link https://www.cloudskillsboost.google/public_profiles/1652ba2a-b9c3-42fd-94c2-e94a516391cf/badges/1781910</p> <p> Kamis 24 Mar 2022</p> <p>Apa yang kamu kerjakan hari ini? on thursday i have 2 targets and 1 event that i have to complete before the 25th which is Google Cloud Computing Foundations: Networking and Security in Google Cloud and Google Cloud Computing Foundations: Data, ML, and AI in Google Cloud and the event is ILT-CC-03-M Introduction to Google Cloud will be lead instructor Mr. Trisna Holdz Abdillah, in the ilt Mr Trisna Explains what google cloud is, step by step, like google cloud fundamentals, benefits, features, other, sharing shassion, And Il Exam finally tonight I got the certificate of Google Cloud Computing Foundations: Networking and Security in Google Cloud and then tomorrow I will continue to work Google Cloud Computing Foundations: Data, ML, and AI in Google Cloud</p> <p> Jumat 25 Mar 2022</p> <p>Apa yang kamu kerjakan hari ini? today in friday a blessed day, i will learn and finish a work Google Cloud Computing Foundations: Data, ML, and AI in Google Cloud, because a deadline is 25 march., after that i have an event every weekly meanly is weekly consultant with mentor Mr David Nasrullah at 2 Pm but Mr David cant attendent because he is sick iam really sad, hopefully Mr David, Get Well Soon, and activity cheerfully usual. thank you</p>
Minggu Ke -7	<p> Apa yang kamu pelajari minggu ini? 4 module google 1. build apps with google assistant 2. build website 3. dev opps ...</p> <p> Senin 28 Mar 2022</p> <p>Apa yang kamu kerjakan hari ini? Monday, I got 4 google ggcpc quest assignments, namely Implement DevOps in Google Cloud, Build Interactive Apps with Google Assistant, Build a Website on Google Cloud, and Google Developer Essentials, besides that I got a token for coursera certification with the title architecting google cloud foundation for the deadline for the 4 quests on March 30th. I will start it hopefully can be on time</p> <p> Selasa 29 Mar 2022</p> <p>Apa yang kamu kerjakan hari ini? in the date 28 march i get new certified about google developer essential this my link certified https://www.cloudskillsboost.google/public_profiles/1652ba2a-b9c3-42fd-94c2-e94a516391cf/badges/1791543, after i get it today i have target about finsh lab namely build apps using google assistant, in this module i have new learn and information how to deploy , how to make program...</p>

Rabu
30 Mar 2022

Apa yang kamu kerjakan hari ini?
yeahh i get certified google build apps using google assistant, but this not my target day of certified, but is okey, because i have many trouble many repeat the challange, how can i out this trouble ? yeahh i have friend can help me for out the trouble, namely rizky she help me thanks, oke next i adding target in today to finish dev oops it will challange mee

Kamis
31 Mar 2022

Apa yang kamu kerjakan hari ini?
tuesday , i have got new certified 4 quest, in 30 march. about google dev essential, google dev oops, build apps with google translate, and website on google cloud yeahh i did it, after that i will continue ceticfication in coursera, i have target in week 1 can be finsh in max 3 days

Jumat
1 Apr 2022

Apa yang kamu kerjakan hari ini?
friday the day of many bleassing from god Allah Swt. in the day i to be continue in certification coursera " archiectching with google cloud fondation" infrasctrucrur core. many learn and most clarity in coursera module, in this module average using videos, and lab, this i think get benefit

Minggu Ke -8



Senin
4 Apr 2022

Apa yang kamu kerjakan hari ini?

In the monday, i get 5 Quest Assigment about Google Cloud Skill Boost, the n

1. Create and Manage Cloud Resources
2. Perform Foundational Infrastructure Tasks in Google Cloud
3. Perform Foundational Data, ML, and AI Tasks in Google Cloud
4. Set Up and Configure a Cloud Environment in Google Cloud
5. Deploy and Manage Cloud Environments with Google Cloud

and 2

Coursera Week 2 Arcitecting Google Cloud

And today i will finish assigment coursera first



Selasa
5 Apr 2022

Apa yang kamu kerjakan hari ini?

Tuesday , 5 April, I finish the badge Create and Manage Cloud Resources and coursera almost finish yeah, and at 1pm - 3pm i Join ILT-CC-04-E Data, M the ilt consist of example ocr, and introduce google cloud, this make me , get



Rabu
6 Apr 2022

Apa yang kamu kerjakan hari ini?

Wendesday, 6 april., Yeah I got new certified about 2 quest and coursera week 2 Foundational Infrastructure Tasks in Google Cloud, Perform Foundational Data, N Cloud.. next at 1- 3pm i join about google meeting in youtube. they consist about team capstone, tell about company and product based



Kamis
7 Apr 2022

Apa yang kamu kerjakan hari ini?

Thusday, i dot 2 quest and join weekly consultant lead by Mr David Nasrullah, He make capstone the least year, and how to build team, tell story how to, do in caps many question. i am forget first he will make games, and the games will build by s not ready, hahahah, Hopefully tomorrow weekly student will be ready



Jumat
8 Apr 2022

Apa yang kamu kerjakan hari ini?

FRIDAY THE DAY OF MANY BLEASING, today i get 2 certified finaly my assigment Configure a Cloud Environment in Google Cloud , Deploy and Manage Cloud Env Cloud, and at Bangkit Guest Speaker Session #7 - Sidiq Permana "10 Recipes to Master Android App Development"

Minggu Ke -9

 Senin
11 Apr 2022

Apa yang kamu kerjakan hari ini?
 Senin. saya menggunakan kesempatan untuk menonton capstone project dari company team, dimana di hari ini terdapat 4 capstone project dan 1 live session.
 hari ini kurasa jadwalnya cukup padat
 1. capstone project dari pukuenam, dan talentlytica
 2. capstone indosat oordeoo
 3. traveloka singapore
 4. dicoding

[sembunyikan](#)

 Selasa
12 Apr 2022

Apa yang kamu kerjakan hari ini?
 today I am working on 2 module quests from qwiklabs, namely 1. Build and Secure Networks in Google Cloud
 2. Monitor and Log with Google Cloud Operations Suite
 and today my target is 20% progress

[sembunyikan](#)

 Rabu
13 Apr 2022

Apa yang kamu kerjakan hari ini?
 Wednesday I listened to the explanation of Capstone product based health pikobar and Building an Edu Tech Startup

 Kamis
14 Apr 2022

Apa yang kamu kerjakan hari ini?
 yeah today I got finish 100 in module Build and Secure Networks in Google Cloud and 80 % in module Monitor and Log with Google Cloud Operations Suite. Because there is a maintenance problem, the deadline has been extended

 Jumat
15 Apr 2022

Apa yang kamu kerjakan hari ini?
 friday of blessing. i meeting third time, for brainstorming project product base capstone, result will presents decision 1 month latter. wish we got confirm in our team

Minggu Ke -10

 Senin
18 Apr 2022

Apa yang kamu kerjakan hari ini?
today we collect our ideas in the form of capstone based products. Hopefully our team can continue and our ideas are accepted.

 Selasa
19 Apr 2022

Apa yang kamu kerjakan hari ini?
wendesday, kami melanjutkan tugas 4 quest qwiklabs yaitu
 1. Cloud Architecture: Design, Implement, and Manage
 2. Understanding Your Google Cloud Costs
 3. Optimizing Your Google Cloud Costs
 4. Security & Identity Fundamentals

I join ILT-CC-05-E Google Cloud's Operations Suite and Security At 1PM - 3 Pm

[sembunyikan](#)

 Rabu
20 Apr 2022

Apa yang kamu kerjakan hari ini?
wednesday i totally finish assigment 2 modul, yeah tommor i will targeting for finish all my assigment

 Kamis
21 Apr 2022

Apa yang kamu kerjakan hari ini?
thusday the day kartini indonesia. yeah i done my 4 quest assigment qwiklabs yes i can doit

 Jumat
22 Apr 2022

Apa yang kamu kerjakan hari ini?
friday the day of blessing. i have 3 scheduler
firts and i think is important
weekly consultation and quest speker

the quest speker have 2 girl fantastic
Bangkit Guest Speaker Session #8 - How to be the Next Generation of Leaders in Tech

Do you have the necessary skills to be leaders in tech industry?

Let our Special Guest Speakers share you some tips from the pro:

1. Muriel Makarim (Head of Brand Reputation and Marketing, Google Indonesia)
2. Dian Rosanti (Head of Product Management, Consumer Platform at Gojek).

[sembunyikan](#)

Minggu Ke -11

Apa yang kamu pelajari minggu ini?

Join Team Meeting for discusse, and join iit mandatory, the ssesion about Idea Generation & MVP Planning lead by Ms Risma Suarna, and weekly consultation lead Mr David Nassrullah

and at friday the day of many bleassing. this is friday end in ramadahan session, so sad, the time i thinks is very quickly

[sembunyikan](#)

 Senin
25 Apr 2022

Apa yang kamu kerjakan hari ini?
today, i do join team meeting to discuss project capstone, and i join my course campus,

 Selasa
26 Apr 2022

Apa yang kamu kerjakan hari ini?
Today i am join the session of the
ILT-SS-05-Q Idea Generation & MVP Planning
Lead by Risma Suarna at 1.00 pm - 3.00 pm

 Rabu
27 Apr 2022

Apa yang kamu kerjakan hari ini?
today i am join the session usual weekly consultation lead by David Nasrullah
after session i am, make meeting capstone to discuss capstone project

 Kamis
28 Apr 2022

Apa yang kamu kerjakan hari ini?
today we make team meeting again for discuss idea and discuss where the idea feature

 Jumat
29 Apr 2022

Apa yang kamu kerjakan hari ini?
friday the day of many bleassing, this is friday end in ramadahan session, so sad, the time i thinks is very quickly

Minggu Ke -12



Senin
2 Mei 2022

Apa yang kamu kerjakan hari ini?
Liburnasional



Selasa
3 Mei 2022

Apa yang kamu kerjakan hari ini?
Liburnasional



Rabu
4 Mei 2022

Apa yang kamu kerjakan hari ini?
our time make gmeet, and we together, fill the text, and idea detail, and yeah we got finally my team submit the plan and time sheets to bangkit gform 2 mei



Kamis
5 Mei 2022

Apa yang kamu kerjakan hari ini?
Tidak ada operasional



Jumat
6 Mei 2022

Apa yang kamu kerjakan hari ini?
Cuti/Keperluan pribadi

Minggu Ke -13

Apa yang kamu pelajari minggu ini?

Thursday i join the meeting mandatory bangkit team meeting 3

the agenda is google certification
3rd softskill challange
bangkit 2022 career fair

[sembunyikan](#)



Senin
9 Mei 2022

Apa yang kamu kerjakan hari ini?
Monday, i continue discusd the project plan for capstone



Selasa
10 Mei 2022

Apa yang kamu kerjakan hari ini?
7 i continue make progress google cloud skill boost and coursera in maintenance lab



Rabu
11 Mei 2022

Apa yang kamu kerjakan hari ini?
done finish all assigment google skill boost and coursera ace

	<p> Rabu 11 Mei 2022</p> <p>Apa yang kamu kerjakan hari ini? done finish all assignment google skill boost and coursera ace</p> <hr/> <p> Kamis 12 Mei 2022</p> <p>Apa yang kamu kerjakan hari ini? Thursday i join the meeting mandatory bangkit team meeting 3</p> <p>the agenda is google certification 3rd softskill challange bangkit 2022 career fair</p> <p style="text-align: right;">sembunyikan</p> <hr/> <p> Jumat 13 Mei 2022</p> <p>Apa yang kamu kerjakan hari ini? Friday the day of many blessing, i continue to finish the task</p>
Minggu Ke -14	<p> Senin 16 Mei 2022</p> <p>Apa yang kamu kerjakan hari ini? monday i make team capstone discussion about flow ml - cc - md</p> <hr/> <p> Selasa 17 Mei 2022</p> <p>Apa yang kamu kerjakan hari ini? i am continue to discusd with team capstone to fixing flow and make progress</p> <hr/> <p> Rabu 18 Mei 2022</p> <p>Apa yang kamu kerjakan hari ini? today i have 2 task, weekly consultant and 1 team meeting capstone, in team meeting we make sample ui ux and sample flow ml to cc deployment</p> <hr/> <p> Kamis 19 Mei 2022</p> <p>Apa yang kamu kerjakan hari ini? today i make discusd with my friends muhammad alwi abdul aziz for make cc run</p> <hr/> <p> Jumat 20 Mei 2022</p> <p>Apa yang kamu kerjakan hari ini? we make progress and make flow, we and aziz, will make endpoint using flask, and the next wee will learning together about flask</p>

Minggu Ke -15	<p>Apa yang kamu pelajari minggu ini?</p> <p>monday until friday , i am and my team capstone make gmeet , and make progress everyday. the ml team have make progress 70 persen accourate, md have make app, and cc still get problem with api</p> <p> Senin 23 Mei 2022</p> <p>Apa yang kamu kerjakan hari ini? Monday i continue learn flask api endpoint and theorii for make sure wee are understand how its work</p> <p> Selasa 24 Mei 2022</p> <p>Apa yang kamu kerjakan hari ini? today i get email from bangkit to redeem gcp token and i get 125 dollar</p> <p> Rabu 25 Mei 2022</p> <p>Apa yang kamu kerjakan hari ini? Wendesday i join the team meet capstone to discusd ml model, like search dataset, train model</p> <p> Kamis 26 Mei 2022</p> <p>Apa yang kamu kerjakan hari ini? thursday i join again team discusd to talking and make progress, the ml team have make sample ml model and have accourate 60 % and ml will be train again to make high accourate, and team md suddenly make sample app, and team cc still get problem using flask</p> <p> Jumat 27 Mei 2022</p> <p>Apa yang kamu kerjakan hari ini? friday the day of bleesing, i join meet again and the ml team have result get 70 accourate after make change the model and added the dataset</p>

Minggu Ke -16

Apa yang kamu pelajari minggu ini?

team ml make progress again, the ml model now have 85 % accurate significat. and Team cc get englignment to deploy ml tensor flow to compute engine , and we done it after that team cc i and aziz, will make api endpoint



Senin
30 Mei 2022

Apa yang kamu kerjakan hari ini?
today we will join the mentoring session with mr grafika jati and ms anindya cantik
the result will be added tommorow



Selasa
31 Mei 2022

Apa yang kamu kerjakan hari ini?
mr grafika jati and ms anindya cantik, give tips for ml if ml want to get high accurate > 80 %



Rabu
1 Jun 2022

Apa yang kamu kerjakan hari ini?
today i join meet usual, team ml make progress again, the ml model now have 85 % accurate significat. and Team cc get englignment to deploy ml tensor flow to compute engine , and we done it after that team cc i and aziz, will make api endpoint



Kamis
2 Jun 2022

Apa yang kamu kerjakan hari ini?
today i am and aziz, now make api progress is 40 % because library have conflict, because library in google collab and i deploy ml in compute engine is different



Jumat
3 Jun 2022

Apa yang kamu kerjakan hari ini?
yeah now the library is not conflict any more and ml model can run successfull in compute engine

Minggu Ke -17

Senin
6 Jun 2022

Apa yang kamu kerjakan hari ini?
Monday i done Make Endpoint using flask and now the endpoint can access properly in
<http://104.197.16.252/upload> and <http://104.197.16.252/result?id=>

Selasa
7 Jun 2022

Apa yang kamu kerjakan hari ini?
today i join team mandatory team meeting 4 at 1 pm - 3 pm. now my team will continue make ppt and
project brief

Rabu
8 Jun 2022

Apa yang kamu kerjakan hari ini?
we continue make ppt and make videos

Kamis
9 Jun 2022

Apa yang kamu kerjakan hari ini?
we done make ppt and video present and make demo

Jumat
10 Jun 2022

Apa yang kamu kerjakan hari ini?
today we discuss again to make other ppt is bisnis model presentation and we will make video again

Minggu Ke -18

 Senin
13 Jun 2022

Apa yang kamu kerjakan hari ini?
today is deadline capstone project

 Selasa
14 Jun 2022

Apa yang kamu kerjakan hari ini?
we waiting for calling presentation time

 Rabu
15 Jun 2022

Apa yang kamu kerjakan hari ini?
today this is my team to take presentation at '15.30 until 17.30 and my team now will be preparingh

 Kamis
16 Jun 2022

Apa yang kamu kerjakan hari ini?
today will be do make report bangkit capstone in udinus

 Jumat
17 Jun 2022

Apa yang kamu kerjakan hari ini?
Today i continue make report capstone on udinus, and try simulation exam cc

Minggu Ke -19	 <p>Senin 20 Jun 2022</p> <p>Apa yang kamu kerjakan hari ini? Monday, i exam test ace prep in dicoding the have 3 simulation and in 1 simulation have 50 Question</p>
	 <p>Selasa 21 Jun 2022</p> <p>Apa yang kamu kerjakan hari ini? I countinue Exam Test and join Weekly Consultant By Mr David Nasrullah Facil</p>
	 <p>Rabu 22 Jun 2022</p> <p>Apa yang kamu kerjakan hari ini? I get stuct in exam but i optimis this exam can done under 1 july</p>
	 <p>Kamis 23 Jun 2022</p> <p>Apa yang kamu kerjakan hari ini? today i join at ILT-SS-06-F Startup Valuation & Investment Pitch By Ardianus Yoza</p>
	 <p>Jumat 24 Jun 2022</p> <p>Apa yang kamu kerjakan hari ini? Today I join Bangkit Alumni Sharing Session : Certification Preparation</p>

Minggu Ke -20	<p> Senin 27 Jun 2022</p> <p>Apa yang kamu kerjakan hari ini? I continue Prep Exam In dicoding</p> <p> Selasa 28 Jun 2022</p> <p>Apa yang kamu kerjakan hari ini? I join Weekly Consultant again Lead By fasil David Nasrullah</p> <p> Rabu 29 Jun 2022</p> <p>Apa yang kamu kerjakan hari ini? today i join ILT-CC-06-F Associate Cloud Engineer Certification Preparation for Prepartion ACE,. This session will be lead by our instructor: Fatimah Wulandini</p> <p> Kamis 30 Jun 2022</p> <p>Apa yang kamu kerjakan hari ini? yEAH I exam ACE PREP In dicoding most finish</p> <p> Jumat 1 Jul 2022</p> <p>Apa yang kamu kerjakan hari ini? FINALLY I JUST FINISH EXAM PREP ACE DIcoding</p>
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