

SILVER				GOLD					PLATINUM		
Chapter 0	Chapter 1	Chapter 2	Chapter 3	Chapter 4	Chapter 5	Chapter 6	Chapter 7	Chapter 8	Chapter 9	Chapter 10	Chapter 11
Mengetahui Pengantar Dunia Pemrograman	Memahami basic programing dengan menggunakan bahasa pemrograman Javascript	Memahami logika pemrograman dengan menggunakan Javascript	Pengolahan data di backend dengan database PostgreeSQL	Mampu membuat rest API	Networking, API Documentation dan Design Pattern	Mampu melakukan testing dan deployment	Memahami penggunaan authentication dan media handling untuk mendukung pengembangan fitur pada web	Memahami penggunaan web socket dan mailer untuk mendukung pengembangan fitur pada web	Melakukan collaboration project		
Programming Introduction <ul style="list-style-type: none"> - Sejarah Aplikasi - Konsep Produk - SDLC - Tech Stack - Bahasa Pemrograman 	Backend (Pengantar) <ul style="list-style-type: none"> - Pengenalan back end developer - BE developer job scope - BE developer skill set - Terminal - Tools for development 	Programming Algorithm part 1 <ul style="list-style-type: none"> - Algoritim - Flowchart - Pseudocode - Sorting algorithm 	Database <ul style="list-style-type: none"> - Mengenal database - DBMS - SQL (PostgresSQL) - No SQL (MongoDB) - ERD (Entity Relationship Diagram) 	Node.JS <ul style="list-style-type: none"> - Runtime environment - Module (Core Module, Third Party Module, Local Module) - Monoitihic - Packages manager - Node.JS vs Browser - Read and write file 	Networking <ul style="list-style-type: none"> - Client & Server Introduction - Protocols - Monoitihic - Microservices - HTTP responses 	Testing <ul style="list-style-type: none"> - Testing fundamental - Testing principles - Test phases dan testing types - Automation testing - Testing using Jest - End to end testing using Jest - Backend debugging & logging 	Authentication <ul style="list-style-type: none"> - Authentication - JWT strategy - Passport - Facebook & google OAuth 	Web socket <ul style="list-style-type: none"> - Web socket introduction - Socket IO 			
	Javascript - Struktur data <ul style="list-style-type: none"> - Code structure - Variables - Data types 	Loop <ul style="list-style-type: none"> - For - While - Do-while - Recursive 	DBMS (Database Management System) <ul style="list-style-type: none"> - Macam-macam DBMS - Setup database (SQL) 	Express JS <ul style="list-style-type: none"> - Express JS introduction and installation - Routing - Middleware (authentication, authorization) - View Engine - Data storage 	API Documentation <ul style="list-style-type: none"> - Dokumentasi API - Struktur dan Kriteria Dokumentasi API - Swagger Tools - Implementasi Swagger - Integrasi Dokumentasi API 	Cloud and Server <ul style="list-style-type: none"> - Cloud & server introduction - Environment set up 	Debugging and Logging <ul style="list-style-type: none"> - Backend debugging - Debugging after deployment 	HTML & CSS <ul style="list-style-type: none"> - Introduction HTML dan web design - Meta data - HTML text forming - Hyperlinks - CSS introduction - CSS syntax 			
	Javascript - Operator & Expression <ul style="list-style-type: none"> - Operators - Logical operators - Let, const dan var 	Programming Algorithm part 2 <ul style="list-style-type: none"> - Sorting algorithm - Binary search algorithm - Persegi Bintang - Segitiga Bintang - Segitiga dengan Angka - Deret Fibonacci - Deret Angka - Bilangan Prima 	Query Language <ul style="list-style-type: none"> - DDL (Data Definition Language) - DML (Data Manipulation Language) - CRUD 	Restful API <ul style="list-style-type: none"> - HTTP Server - Metode HTTP - Serving HTML - Serving static file - JSON - Mengenal Restful API - Endpoint - Implementasi Restful API - API test 	Design Pattern <ul style="list-style-type: none"> - Design pattern introduction - MVC (Model View Controller) - DMV (Data Model Controller Router) - MCR (Model Controller Router) 	Containerisasi & deployment <ul style="list-style-type: none"> - Deployment - Docker architecture - Docker commands to manage images and containers - Networks in docker - Volumes in docker - Deploy web apps sebagai docker container 	Backend Media Handling <ul style="list-style-type: none"> - Video Upload - Image Upload - Document Upload 	Mailer <ul style="list-style-type: none"> - Mailer introduction - SMTP - Pop-3 - Implementasi node mailer 			
	EcmaScript 6 <ul style="list-style-type: none"> - Function - Class - Promise - Async await 	OOP in Javascript <ul style="list-style-type: none"> - OOP introduction - Polymorphism - Inheritance - Encapsulation - Abstraction 	RDBMS <ul style="list-style-type: none"> - RDBMS introduction - RDBMS implementation 	DBMS <ul style="list-style-type: none"> - Express SQL Database connection 		CI/CD <ul style="list-style-type: none"> - CI/CD process - Create a .gitlab-ci.yml file - Pipeline and jobs status 					
	GIT <ul style="list-style-type: none"> - Instalasi - Inisialisasi - Command - Manage repo - Branching 			ORM (Object Relational Mapping) <ul style="list-style-type: none"> - ORM introduction dan installation - Definisi Model - Migration - Model definition - Querying - Association - CRUD data 							
Self Learning, Live Forum Discussion, Individual Project				Self Learning, Live Forum Discussion, Individual Project					Self Learning, Live Forum Discussion, Collaboration Project		