Dart & Flutter Course by RamApp.Dev

Course Intro

Dart basics
- What are data types
  - I.e. int ,var, bool, String etc.
- How to declare a variable
- What is main() function
- What is a function and return type
- What is a class , are what are extends, with keywords
- What are arithmetic operators
  - + - * /
- What are relational operators
  - \>
  - <
  - =>
  - =<
  - !=
  - ==
- How to print "Hello World"
- Working with Arrays / Lists
  - Printing , adding, remove data from array
    - Push
    - Pop
    - Sort
    - Map
- What is multidimensional array
- How to access elements from List/ Array
- What is algorithm & flow charts

Dart Intermediate
- If … else ….
- For Loop
- Map function
- What is main function
- Passing arguments in function
  - Named
  - Positional
- What is arrow function

- What is object
- What is a Model
- What is constructor
- What is destructor

Dart Advanced
- Performance improvement
- Test using print statement
- Try and catch block

Flutter introduction
- What is flutter and it's uses
- What are system requirements
- How to install flutter
- Create first flutter project
- Flutter file structure
    - Left sidebar folder
- How to use IDE's
    - Vs code setup with theme and extensions
    - Android studio
    - xCode and simulator
- What is terminal and how to use it
- Info about flutter.dev and pub.dev

- What is import
- What is pubspec.yaml file
- What is hot reload & hot restart
    - And when to use them
- Introduction to widget tree
    - Running apps on android emulator, ios simulator, real devices

Flutter Basics

- What are
    - Widgets
        - Column, row
        - Scaffold
        - Container
        - Drawer
        - appBar
        - Text, RichText etc.
- Learn about UI Components
    - Tabs
    - List View

- - Icon
  - Adding image,fonts.etc
  - Textfield
    - And validators and controllers
  - SizedBox widget
    - And Gap widget
  - Buttons
  - Bottomsheet widget
- What is Material design
- What are ios styled widgets (cupertino icons)
- Flutter Themes (ThemeData)
- Navigation using Material Page Route

Flutter Intermediate

- Difference between stateful and stateless widgets
- Calling a function
- What is setState function
- Passing function as a arguments
  - Passing data from one widget to another
- How to refactor widgets
  - And use them
- How to use flutter packages
- How to structure and organize apps
- Difference between final and const
- Introduction about
  - Map function
  - Enum
  - Ternary operators
    - ?
    - :

Flutter Advanced
- What is Async and await
- Stateful widget lifecycle
- Try and catch, throw,default
- Dart null safety
  - What is ?? (default)
- Fetch API using
  - Private and public APIs
    - Http package
    - Dio package
- Parse Json data using dart:convert
- Detect platform and render different UIs

- Use StreamBuilder
- Use FutureBuilder

Firebase

- Database
- Authentication
- Analytics
- Admob

Flutter Animations

- Hero Animations
- Animation using mixin classes
- Others

State management
- Getx
  - Navigation
  - snackbar/ dialogs / bottom sheets
  - State manager
  - Put & get data
  - key/ value storage

- Packages
  - Shared_preferences
  - Image_picker
  - Permission handler
  - webview _flutter
  - Url_launcher
- PUSH NOTIFICATIONS
- App icon
- Deployment
-
Real life apps making
5 apps

Other tools
- Figma
  - For design

- Postman
  - For api calls and response
- StackOverflow
  - How to use it
- ChatGPT
  - How to get code for frontend designs
  - And error solving
- Github
- Terminal basics

NOTE : COURSE CONTENT WILL BE UPDATED TIME TO TIME, SO KEEP CHECKING **FREQUENTLY**.