Week 1 (Foundations of Dart)

📘 Dart Programming Bootcamp — Week 1 (Foundations of Dart)

Week Duration: Monday to Saturday

Deadline: Saturday, 02,July , 2025

✅ Topics Covered This Week

This week is all about mastering the basics of Dart programming. You are required to go through the following foundational topics:

1. ✅ **DartPad Introduction**
   - Practice code directly at: https://dartpad.dev

2. ✅ **Variables**
   - Understanding `var`, `final`, `const`, and type annotations.

3. ✅ **Built-in Types**
   - `int`, `double`, `String`, `bool`, `List`, `Map`, `Set`.

4. ✅ **Functions**
   - Named functions, anonymous functions, arrow syntax, optional parameters.

5. ✅ **Operators**
   - Arithmetic, relational, logical, assignment, null-aware operators.

6. ✅ **Control Flow Statements**
   - `if/else`, `switch`, `for`, `while`, `do-while`, `break`, `continue`.

🎥 Learning Resource

Please complete this **YouTube Playlist** by **Saturday**:

📺 <u>The Net Ninja - Dart Tutorial for Beginners</u>

This playlist will guide you through Dart fundamentals in a clear and beginner-friendly way.

🛠️ Mini Project for Week 1: **Dart CLI Quiz App**

📌 Project Requirements:

- Build a simple **Quiz App in Dart (CLI-based using DartPad or local Dart environment)**.

- Your app should:

  - Ask at least 5 multiple-choice questions

  - Track user's score

  - Use functions for modular code

  - Use Lists/Maps to store questions and answers

  - Use `if` / `else` , `for` / `while` loops

  - Output final score to user

🧠 Project Goal:

This project helps you implement everything you've learned — variables, data types, functions, control flow, and basic logic building.

📅 Submission Guidelines:

- Complete the playlist and the mini project by **Saturday, 02,July 2025**

- Submit your code via GitHub or paste your DartPad link (Submission Form Will be posted in group).

- Be prepared to demo your project briefly in Sunday's review session.

🔗 Optional Resources:

- <u>Dart Documentation</u>

- [Practice Problems](#)

- [Dart Cheatsheet](#)

For any doubts or help, reach out to the mentors or ask in your bootcamp group. Happy coding! 💻✨