1. Introduction to ROS2
    - What is ROS2?
    - Differences between ROS1 and ROS2.
    - Practical Use Cases for ROS2 in robotics, simulation, etc.
2. Setting Up a ROS2 Environment
    - What are ROS2 distributions?
    - Installing ROS2 → links to the guides for Ubuntu, Windows, macOS.
3. Basic ROS2 Concepts
    - **Nodes**: Introduce nodes as independent processes in ROS2 that perform computations.
        - Introduce messages as the structured data format that nodes exchange.
    - **Topics**: Explain how nodes communicate using topics (pub/sub model).
    - **Services**: Explain synchronous communication using services (request/reply).
    - **Actions**: Discuss action servers for tasks that take time, providing feedback and goals.
    - **Parameters**: Introduce the concept of node parameters, which allow dynamic reconfiguration.
    - **Launch Files**: Explain launch files to run multiple nodes together with a single command.
4. ROS2 Command-Line Tools
    - Ros2 run: Run a node.
    - Ros2 topic: View, echo, or publish to topics.
    - Ros2 service: Call or list available services.
    - Ros2 node: List nodes running in the system.
    - Ros2 param: Get, set, and list node parameters.
5. Using Turtlesim - Practical Applications
    - How to install the Turtlesim package.
    - How to use the Turtlesim package.
6. Writing a Simple ROS2 Node
    - Guide users to create a node from scratch, introduce message types, and publish/subscribe to topics.
7. Working with Launch Files
    - Introduce launch files practically, setting up multiple nodes, configuring parameters, and using arguments.
8. Debugging Tips
    - Provide troubleshooting methods for common errors, how to check system logs, and tools like ros2 topic echo for inspecting message data.