**Flutter Activity**

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“On my honor, as student of University of Engineering and Technology, I have neither given nor received unauthorized assistance on this academic work.”

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1. **Creating first App**

* Install Flutter: If you haven't already, follow the official Flutter installation guide to set up the Flutter SDK on your system.

Create a new project: Use the Flutter command-line tool to create a new project

* **flutter create my\_first\_flutter\_app**
* Replace **my\_first\_flutter\_app** with the desired name for your project.
* Open in IDE: Open the newly created project in your preferred IDE (e.g., VS Code, Android Studio).

1. **Execution of first App on web/emulator/physical device**

**Run on emulator/simulator:**

* Connect an emulator or simulator for your target platform (Android or iOS).
* Run the app using the following command in your terminal:
* **flutter run**

**Run on a physical device:**

* Connect your physical device (Android or iOS) to your computer.
* Enable developer options and USB debugging on your device.
* Run the app using the flutter run command.

**Run on the web:**

* Use the following command to run the app in a web browser:

**flutter run**

**3.Folder Structure and Files**

* **lib folder**: Contains the Dart source code for your Flutter application.
* **main.dart**: The entry point of your application.
* **android and ios folders**: Contain platform-specific code for Android and iOS.
* **pubspec.yaml:** A YAML file that describes your project's dependencies and assets.
* **test folder:** Used to write unit and widget tests for your application.

**4.Flutter Widgets**

* **What is a Widget?**
  + In Flutter, everything is a widget.
  + Widgets are the building blocks of the user interface.
  + They represent a visual element on the screen (e.g., a button, text, image, etc.).
  + Widgets can be stateless or stateful.
* **Types of Widgets**

**StatelessWidget:**

* + - Represents a widget that does not change over time.
    - Its appearance is determined entirely by its current configuration.
    - Example: Text, Icon, Image.

**StatefulWidget:**

* + - Represents a widget that can change over time.
    - It maintains state internally and can rebuild itself when that state changes.
    - Example: TextField, Checkbox, DropdownButton.

TASK

