

Mobile Application Development Lab

CSL-341

Lab Journal



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Tasks

1. Write the main steps involved in Flutter installation.

Answer:

- **Download Flutter SDK:**
 - [Flutter's official website](#) use this to download the latest stable version for your OS.
- **Extract Flutter SDK:**
 - Unzip the downloaded file to a location (`/Users/fawadnaveed/flutter` what I used).
- **Set Up Environment Variables:**
 - Added Flutter to the system PATH so you can run `flutter` commands globally.
- **Install Dependencies:**
 - Ensure that Git is installed and available in the system.
 - For macOS, use Homebrew: `brew install git`.
- **Run `flutter doctor`:**
 - Open a terminal and run `flutter doctor` to check if all dependencies are installed.
- **Installing Android Studio (for Android Development):**
 - Install Android SDK and configure an emulator.
- **Enabling Web, Desktop, or:**
 - Run `flutter config --enable-web` for web support.
 - Use of Xcode on mac for iOS development.

2. How you connect your mobile phone in replacement of Virtual Device? Write step by step procedure.

Answer:

1. **Enable Developer Mode on your mobile phone:**

- Go to **Settings** → **About Phone** → Tap **Build Number** 7 times to enable Developer Options.
- 2. **Enable USB Debugging:**
 - In **Developer Options**, enable **USB Debugging**.
- 3. **Connect the Device to PC:**
 - Use a USB cable to connect your mobile phone.
- 4. **Authorize Debugging (if prompted):**
 - Accept the prompt on your phone to allow USB debugging from your computer.
- 5. **Check Device Connection:**
 - Open a terminal and run:

```
nginx
CopyEdit
flutter devices
```

- If your device appears in the list, it's successfully connected.
6. **Run the Flutter Project on Mobile:**
 - Navigate to your Flutter project directory and run:

```
arduino
CopyEdit
flutter run
```

- App is launched mobile phone instead of a virtual emulator.

3. In VS Code, which extension you install for flutter and Dart?

Answer: **Flutter Extension**

4. How can we create a flutter project?

Answer:

1. **Open Terminal or Command Prompt.**
2. Navigate to the folder where you want to create the project.
3. Run the following command:

```
lua
CopyEdit
flutter create project_name
```

Example:

```
lua
CopyEdit
flutter create my_app
```

4. Navigate into the project folder:

```
bash
CopyEdit
cd my_app
```

5. Open the project in VS Code:

```
css
CopyEdit
code .
```

6. Run the app:

```
arduino
CopyEdit
flutter run
```

5. What is the advantage of setting path in environment variables?

Answer:

- **Allows Global Access:** You can run `flutter` commands from any directory.
- **Simplifies Development:** No need to specify the full path of the Flutter SDK every time.
- **Helps VS Code Recognize Flutter:** Ensures smooth integration with development tools.
- **Prepare System for Future Updates:** Makes it easy to update Flutter without reconfiguring paths.