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A Report on Workshop on

"Mobile Application Development Using Flutter and Dart"

Date of the event	03.05.2025
Title of the Event	**Workshop on "Mobile Application Development Using Flutter and Dart"**
Organized by	Dept of Computer Science and Engineering MVJCE, Bangalore

"Mobile Application Development Using Flutter and Dart" workshop was conducted by the **Department of Computer Science and Engineering** for 6th semester Computer Science students, on 3rd May 2025, at **Rajalakshmi Seminar Hall**. The event started at **10:00 AM and concluded at 3:30 pm.** One-hundred-eighteen **students from the 6th semester CSE** participated in this event. The objective was to familiarize students with modern mobile development tools and practices, explicitly using the Flutter framework and Dart programming language.

About the speaker:

G.V.Prakash Currently working as the **Senior Flutter Developer** in TALENTPLOYER, holds an experience of over six years in building mobile applications for Android and ios using Flutter, Flutter plugins (Mobile & Web) and working with tools like Jira, Android Studio, VS Code, Postman and Git.

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Fig.1 CSE HOD, Dr. Kiran Babu TS, presenting a token of gratitude.

A brief account of the session:

The workshop was conducted in two interactive sessions.

Morning Session: Introduction to Flutter and Dart

The morning session introduced participants to Flutter's fundamental concepts and advantages. The speaker began by outlining the key reasons to learn Flutter, highlighting its cross-platform development capabilities, its hot reload feature, which significantly reduces development time, and its ability to create visually appealing and highly responsive user interfaces.

The session also covered key features of Flutter, including its single codebase for multiple platforms, rich UI libraries, native-like performance, and strong community support. Additionally, participants were introduced to widgets—the fundamental building blocks of any Flutter application. The distinction between stateless and stateful widgets was explained with examples and an overview of the widget lifecycle. Stateless widgets are used for static content, while stateful widgets manage UI elements that dynamically change over time. Furthermore, essential classes such as MaterialApp and Scaffold were discussed to help students understand app structuring and UI layout.

Fig.2 Hosts of the event.

Afternoon Session: Hands-on Development

The afternoon session was an interactive, hands-on experience, allowing students to apply their newly acquired knowledge. Using Android Studio, participants were guided through setting up a Flutter development environment, following the provided setup guide. They installed Flutter and Dart plugins, configured the SDK, and verified the installation using the flutter doctor command. Students created a basic Flutter application once the environment was successfully set up. As a part of the hands-on project, they designed a login page and a simple home page, gaining practical insights into layout, navigation, and user interaction within a Flutter app.

Overall, the workshop proved to be highly beneficial for participants, allowing them to grasp the fundamentals of Flutter and Dart while gaining hands-on experience in mobile app development. The seamless theoretical concepts and practical application blend ensured a well-rounded learning experience. By the end of the workshop, students were equipped with the skills and confidence needed to start building their mobile applications.

Fig.3 Speaker delivering insights.

Fig.4 Students attending the workshop.

Outcomes of the Event

- **Introduction to Flutter & Dart**: Participants gained a basic understanding of Flutter's framework and Dart programming language.
- **Setting Up Development Environment**: Participants learnt how to install Flutter SDK, configure Android Studio, and set up an emulator for testing.
- **Building Simple UI Components**: They understood about Flutter widgets and creating basic user interfaces.
- **Navigation & State Management**: They learnt how to navigate between screens and manage app state.
- **API Integration Basics**: They were introduced to fetching data from APIs and displaying it in the app.
- **Hands-on Project**: They were able to develop a simple mobile application using the learned concepts.

Bhuvaneshwari. G

Co-Ordinator of the Event

Assistant Professor

Computer Science and Engineering