

<b>Mobile App Development Lab</b>	<b>L</b>	<b>P</b>	<b>C</b>
		<b>2</b>	<b>1</b>

Discipline(s) / EAE / OAE	Semester	Group	Sub-group	Paper Code
EAE	7	FSD-EAE	FSD-EAE-4	FSD-437P

<p><b>Marking Scheme:</b></p> <ol style="list-style-type: none"> <li>Teachers Continuous Evaluation: 40 marks</li> <li>Term end Theory Examinations: 60 marks</li> </ol> <p><b>Instructions:</b></p> <ol style="list-style-type: none"> <li>The course objectives and course outcomes are identical to that of (Mobile App Development) as this is the practical component of the corresponding theory paper.</li> <li>The practical list shall be notified by the teacher in the first week of the class commencement under intimation to the office of the Head of Department / Institution in which the paper is being offered from the list of practicals below. Atleast 10 experiments must be performed by the students, they may be asked to do more. Atleast 5 experiments must be from the given list.</li> </ol>
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**Experiment 1: Setting up the Development Environment**

- Install Android Studio and set up the Android development environment.
- Install Xcode and set up the iOS development environment.
- Create a basic "Hello World" app for Android and iOS platforms.

**Experiment 2: User Interface Design and Development**

- Design a simple user interface using XML for an Android app.
- Design a user interface using Interface Builder for an iOS app.
- Implement navigation between multiple screens in both Android and iOS apps.

**Experiment 3: Database Integration in Mobile Apps**

- Create a SQLite database and perform basic CRUD operations in an Android app.
- Implement Core Data framework for data storage in an iOS app.

**Experiment 4: Web Services and API Consumption**

- Retrieve data from a RESTful API and display it in an Android app.
- Consume a web service and display data in an iOS app using URLSession.

**Experiment 5: Location-Based Services and Mapping**

- Implement location tracking and display user location on a map in an Android app using Google Maps API.
- Integrate MapKit framework in an iOS app to show user location and add annotations on the map.

**Experiment 6: Cross-Platform App Development with React Native or Flutter**

- Develop a simple mobile app using React Native, utilizing components and navigation.
- Create a mobile app using Flutter, implementing UI elements and handling user input.

**Experiment 7: Testing and Debugging**

- Perform unit testing on key functionalities of an Android app using JUnit and Android Testing frameworks.
- Debug and test an iOS app using Xcode debugger and XCTest framework.