*JayawantShikshanPrasarakMandal’s*

**JSPM Narhe Technical Campus**

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Affiliated toSavitribaiPhule Pune University,Pune. Approved by AICTE New Delhi and DTE Maharashtra.

**Department: MCA**

**Academic Year –2021-22**

**Teaching Plan**

**Name of Faculty: Nikhil kumthekar Subject: MAD Semester: II Class: MCA-II Planned Duration: 45**

**Course Outcome:**

### CO1-Understand Various Mobile Application Architectures. (Understand).

### CO2- Apply different types of widgets and Layouts. (Apply)

### CO3-Describe Web Services and Web Views in mobile applications. (Understand)

### CO4-Implement data storing and retrieval methods in android. (Apply)

### CO5- Demonstrate Hybrid Mobile App Framework. (Apply)

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| **Sr. No** | **Content** | **Duration** | **Planned date** | **Conducted date** | **Course outcome to fill** | **Teaching model** | **Teaching activity/ method** | **Teaching material** | **References** | **Student activity** | **Student learning material** | **Assessment tool** |
|  | **Pre- Requisite Lecture:** | | | | | | | | | | | |
|  | **Unit I : Mobile application development architectures** | | | | | | | | | | | |
| 1 | Introduction to Mobile Application technologies | 1 Hr | 15/11/2021 |  | CO1 | Inductive thinking & concept attainment model | Direct instructions | Notes | R1,R2,R3,R4,R5 | Reading Notes | Notes | Feedback |
| 2 | Android Architecture | 1 Hr | 16/11/2021 |  | CO1 | Inductive thinking & concept attainment model | Direct instructions | Notes | R1,R2,R3,R4,R5 | Reading Notes | Notes | Feedback |
| 3 | IOS Architecture | 1 Hr | 17/11/2021 |  | CO1 | Inductive thinking & concept attainment model | Direct instructions | Notes | R1,R2,R3,R4,R5 | Reading Notes | Notes | Feedback |
| 4 | Windows Architecture | 1 Hr | 22/11/2021 |  | CO1 | Inductive thinking & concept attainment model | Direct instructions | Notes | R1,R2,R3,R4,R5 | Reading Notes | Notes | Feedback |
| 5 | Hybrid Architecture | 1 Hr | 23/11/2021 |  | CO1 | Inductive thinking & concept attainment model | Direct instructions | Notes | R1,R2,R3,R4,R5 | Reading Notes | Notes | Feedback |
|  | **Bridge Class/ Video Lecture / Case Study/Unit Test:** | | | | | | | | | | | |
|  | **Unit II : Creating Android Application** | | | | | | | | | | | |
| 8 | Creating Android project | 2 Hr | 24/11/2021  29/11/2021 |  | CO2 | Inductive thinking & concept attainment model | Direct instructions | Notes | R1,R2,R3,R4,R5 | Reading Notes | Notes | Feedback |
| 9 | Project Structure | 2 Hr | 30/11/202101/12/2021 |  | CO2 | Inductive thinking & concept attainment model | Direct instructions | Notes | R1,R2,R3,R4,R5 | Reading Notes | Notes | Feedback |
| 10 | Activity and Activity Life Cycle | 2 Hr | 6/12/2021 07/12/2021 |  | CO2 | Inductive thinking & concept attainment model | Direct instructions | Notes | R1,R2,R3,R4,R5 | Reading Notes | Notes | Feedback |
| 11 | Fragment and Fragment Life Cycle | 2 Hr | 8/12/2021213/12/2021 |  | CO2 | Inductive thinking & concept attainment model | Direct instructions | Notes | R1,R2,R3,R4,R5 | Reading Notes | Notes | Feedback |
| 12 | Views and View groups | 2 Hr | 14/12/2021 15/12/2021 |  | CO2 | Inductive thinking & concept attainment model | Direct instructions | Notes | R1,R2,R3,R4,R5 | Reading Notes | Notes | Feedback |
|  | **Bridge Class/ Video Lecture / Case Study/Unit Test:** | | | | | | | | | | | |
|  | **Unit III : Interactivity Tools** | | | | | | | | | | | |
| 18 | Intents and Filters | 2 Hr | 20/12/202121/12/2021 |  | CO2 | Inductive thinking & concept attainment model | Direct instructions | Notes | R1,R2,R3,R4,R5 | Reading Notes | Notes | Feedback |
| 19 | Adapters | 2 Hr | 22/12/2021 27/12/2021 |  | CO2 | Inductive thinking & concept attainment model | Direct instructions | Notes | R1,R2,R3,R4,R5 | Reading Notes | Notes | Feedback |
| 20 | Dialogs | 2 Hr | 28/12/2021 29/12/2021 |  | CO2 | Inductive thinking & concept attainment model | Direct instructions | Notes | R1,R2,R3,R4,R5 | Reading Notes | Notes | Feedback |
| 21 | Menus | 2 Hr | 3/1/2022 4/1/2022 |  | CO2 | Inductive thinking & concept attainment model | Direct instructions | Notes | R1,R2,R3,R4,R5 | Reading Notes | Notes | Feedback |
| 22 | Notifications | 2 Hr | 5/1/2022 10/1/2022 |  | CO2 | Inductive thinking & concept attainment model | Direct instructions | Notes | R1,R2,R3,R4,R5 | Reading Notes | Notes | Feedback |
|  | **Bridge Class/ Video Lecture / Case Study/Unit Test:** | | | | | | | | | | | |
|  | **Unit IV : Interaction with Database** | | | | | | | | | | | |
| 24 | Introduction to Database (SQLite and Firebase) | 2 Hr | 11/1/2022 12/1/2022 |  | CO4 | Inductive thinking & concept attainment model | Direct instructions | Notes | R1,R2,R3,R4,R5 | Reading Notes | Notes | Feedback |
| 25 | Cursors and content values | 2 Hr | 17/1/2022 18/1/2022 |  | CO4 | Inductive thinking & concept attainment model | Direct instructions | Notes | R1,R2,R3,R4,R5 | Reading Notes | Notes | Feedback |
| 26 | CURD Operations | 2 Hr | 19/1/2022 24/1/2022 |  | CO4 | Inductive thinking & concept attainment model | Direct instructions | Notes | R1,R2,R3,R4,R5 | Reading Notes | Notes | Feedback |
|  | **Bridge Class/ Video Lecture / Case Study/Unit Test:** | | | | | | | | | | | |

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|  | **Unit V : Web Services and Web View** | | | | | | | | | | | | |
| 31 | Introduction to web services | 1 Hr | 25/1/2022 |  | | CO3 | Inductive thinking & concept attainment model | Direct instructions | Notes | R1,R2,R3,R4,R5 | Reading Notes | Notes | Feedback |
| 32 | Receiving HTTP Response (JSON, XML) | 1 Hr | 31/1/2022 |  | | CO3 | Inductive thinking & concept attainment model | Direct instructions | Notes | R1,R2,R3,R4,R5 | Reading Notes | Notes | Feedback |
| 33 | Parsing JSON and XML | 1 Hr | 1/2/2022 |  | | CO3 | Inductive thinking & concept attainment model | Direct instructions | Notes | R1,R2,R3,R4,R5 | Reading Notes | Notes | Feedback |
| 34 | Introduction to Web View | 1 Hr | 2/2/2022 |  | | CO3 | Inductive thinking & concept attainment model | Direct instructions | Notes | R1,R2,R3,R4,R5 | Reading Notes | Notes | Feedback |
|  | **Unit VI React Native** | | | | | | | | | | | | |
| 35 | Introduction, Environment Setup | 1 Hr | 7/2/2022 | |  | CO5 | Inductive thinking & concept attainment model | Direct instructions | Notes | R1,R2,R3,R4,R5 | Reading Notes | Notes | Feedback |
| 36 | JavaScript ES6 Overview | 1 Hr | 8/2/2022 | |  | CO5 | Inductive thinking & concept attainment model | Direct instructions | Notes | R1,R2,R3,R4,R5 | Reading Notes | Notes | Feedback |
| 37 | Create React Native App | 1 Hr | 9/2/2022 | |  | CO5 | Inductive thinking & concept attainment model | Direct instructions | Notes | R1,R2,R3,R4,R5 | Reading Notes | Notes | Feedback |
| 38 | React Native Alert API | 1 Hr | 14/2/2022 | |  | CO5 | Inductive thinking & concept attainment model | Direct instructions | Notes | R1,R2,R3,R4,R5 | Reading Notes | Notes | Feedback |
| 39 | React Native Geo location API,.Third Party Libraries | 1 Hr | 15/2/2022 | |  | CO5 | Inductive thinking & concept attainment model | Direct instructions | Notes | R1,R2,R3,R4,R5 | Reading Notes | Notes | Feedback |

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|  | **Unit VII : Introduction Flutter** | | | | | | | | | | | |
| 40 | Overview, Installation, & Architecture of Flutter | 2 Hr | 16/2/2022 21/2/2022 |  | CO5 | Inductive thinking & concept attainment model | Direct instructions | Notes | R1,R2,R3,R4,R5 | Reading Notes | Notes | Feedback |
| 41 | Introduction to Dart Programming & Demonstration of Simple application | 2 Hr | 22/2/2022 23/2/2022 |  | CO5 | Inductive thinking & concept attainment model | Direct instructions | Notes | R1,R2,R3,R4,R5 | Reading Notes | Notes | Feedback |

**Reference Books**

1. Professional Android 4 Application Development by Meier, Reto - Wiley Education

2. Beginning Android 4 Application Development by Lee, Wei- Meng - Wiley Education

3. Android application Development: in 24 hours by Delessio, Carmen; Darcey, Lauren; Conder, Shane - Pearson Education

4. Android by Dixit, Prasanna Kumar - Vikas Publishing House

5. Android Studio Development Essentials Book by Neil Smith

6. Beginning App Development with Flutter by Rap Payne

7. Flutter in Action by Eric Windmill

8. REACT NATIVE IN ACTION DEVELOPING IOS AND ANDROID APPS WITH JAVASCRIPT BOOK BY NADER DABIT

Name and Signature:Prof. Nikhil kumthekar

Faculty HOD

Role: (Prepared By) (Approved by)

Date:

Copy To :( Soft copy of Signed document be provided)

1. HOD/Academic Coordinator
2. Moodle /Website Coordinator