Pragnya education trust's
Pragnya college of management & computer studies,
Handewadi, Pune-411060

BBA(CA) -- Semester: VI

Teaching Plan 2021-2022

Name of Faculty: prof.amina qadri
Subject: Recent Trends in Information Technology **(SUBJECT CODE-601)**

Sr.No.	Month	Week	Topic
1	APR	2	**Chapter 1: Introduction to recent trends** 1.1 Artificial Intelligence 1.2 Data Warehouse 1.3 Data Mining 1.4 Spark **LAB** **WORK**
		3	**Chapter 2: Artificial Intelligence** 2.1 Introduction& Concept of AI 2.2 Applications of AI 2.3 Artificial Intelligence, Intelligent Systems, Knowledge –based Systems, AI Techniques
		4	2.4 Early work in AI & related fields. 2.5 Defining AI problems as a State Space Search 2.6 Search and Control Strategies 2.7 Problem Characteristics 2.8 AI Problem: Water Jug Problem, Tower of Hanoi, Missionaries & Cannibal Problem **LAB** **WORK**
2	MAY	1	**Chapter 3:AI Search Techniques** 3.1 Blind Search Techniques: BFS, DFS, DLS, Iterative deepening Search, Bidirectional Search, and Uniform cost Search
		2	3.2 Heuristic search techniques: Generate and test, Hill Climbing, Best First search, Constraint Satisfaction, Mean-End Analysis, A*, AO* **LAB** **WORK**
		3	**Chapter 4: Data Warehousing** 4.1 Introduction to Data warehouse 4.2 Structure of Data Warehouse 4.3 Advantages & uses of Data Warehouse 4.4 Architecture of Data Warehouse 4.5 Multidimensional data model
		4	4.6 OLAP Vs. OLTP 4.7 OLAP Operations 4.8 Types of OLAP Servers: ROLAP versus MOLAP versus HOLAP **LAB** **WORK**
3	JUNE	1	**Chapter 5: Data Mining** 5.1 Introduction to Data Mining 5.2 Data mining Task 5.3 Data mining issues 5.4 Data Mining versus Knowledge Discovery in Databases 5.5 Data Mining Verification vs. Discovery
		2	5.6 Data Pre-processing – Need, Data Cleaning, Data Integration & Transformation, Data Reduction 5.7 Accuracy Measures: Precision, recall, F-measure, confusion matrix, cross-validation, bootstrap 5.8 Data Mining Techniques 5.9 Frequent item-sets and Association rule mining: Apriori algorithm, FP tree algorithm 5.10 Graph Mining: Frequent sub-graph mining 5.11 Software for data mining : R, Weka, Sample applications of data mining 5.12 Introduction to Text Mining, Web Mining, Spatial Mining, Temporal Mining **LAB WORK**
		3	**Chapter 6: Spark** 6.1 Introduction to Apache Spark 6.2 Spark Installation 6.3 Apache Spark Architecture 6.4 Components of Spark
		4	6.5 Spark RDDs 6.6 RDD Operations: Transformation & Actions 6.7 Spark SQL and Data Frames 6.8 Introduction to Kafka for Spark Streaming **LAB** **WORK**

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BBA(CA) -- Semester: VI

Teaching Plan 2021-2022

Name of Faculty: prof.amina qadri
Subject: Software Testing **(SUBJECT CODE-602)**

Sr.No.	Month	Week	Topic
1	APR	2	**Chapter 1: Introduction** 1.1 Introduction, Nature of errors, 1.2 Testing Objectives 1.3 Testing principles 1.4 Testing fundamentals,
		3	1.5 Software reviews, Formal Technical reviews, 1.6 Inspection and walkthrough 1.7 Testing Life Cycle **LAB** **WORK**
		4	**Chapter 2: Approaches to Testing –Testing Methods** 2.1 White Box Testing and types of white box testing 2.2 Test Case Design 2.3 Black Box Testing and types of black box testing 2.4 Gray Box Testing **LAB WORK**
2	MAY	1	**Chapter 3: Software Testing Strategies &Software metrics** 3.1 Software Testing Process 3.2 Unit Testing 3.3 Integration- Top-down ,Bottom up 3.4 System Testing
		2	3.6 Validation and Verification 3.7 Big Bang Approach 3.8 Sandwich approach 3.9 Performance Testing 3.10 Regression Testing 3.11 Smoke Testing 3.13 Load Testing **LAB** **WORK**
		3	**Chapter 4: Software metrics** 4.1 Introduction 4.2 Basic Metrics –size-oriented metric, Function –oriented metric 4.3 Cyclometic Complexity Metrics Examples on Cyclometic Complexity
		4	**LAB WORK**
3	JUNE	1	**Chapter 5: Testing for Specialized Environments** 5.1 Testing GUI's 5.2 Testing of Client/Server Architectures 5.3 Testing Documentation and Help Facilities 5.4 Testing for Real-Time Systems LAB WORK
		2	**Chapter 6 : Testing Tools& Software Quality Assurance (**Introduction) 6.1 JUnit, Apache JMeter, Win runner 6.2 Load runner, Rational Robot 6.3 Quality Concepts, Quality Movement, Background Issues, SQA activities
		3	6.4 Formal approaches to SQA 6.5 Statistical Quality Assurance 6.6 Software Reliability 6.7 The ISO 9000 Quality Standards 6.8 SQA Plan 6.9 Six sigma 6.10 Informal Reviews
		4	**LAB WORK**

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BBA (CA) -- Semester: VI

Teaching Plan 2021-2022

Name of Faculty: prof.sunita kanadikar
Subject: Advanced Java **(SUBJECT CODE- 603)**

Sr.No.	Month	Week	Topic
1	APR	2	**Chapter 1: JDBC** 1.1 Introduction 1.2 JDBC Architecture. 1.3 JDBC Process 1.4 Working with ResultSet Interface.
		3	**LAB WORK**
		4	**Chapter 2: Multithreading:** 2.1 Introduction to Multithreading. 2.2 Thread creation: Thread Class, Runnable Interface. 2.3 Life cycle of Thread. 2.4 Thread Priority. 2.5 Execution of Thread Application. 2.6 Synchronization and Interthread communication.
2	MAY	1	**LAB WORK**
		2	**Chapter 3: Networking:** 3.1 Overview of Networking. 3.2 Networking Basics: Port Number, Protocols and classes. 3.3 Sockets, Reading from and Writing to a Socket.
		3	**LAB WORK**
		4	**Chapter 4**: **Servlet and JSP** 4.1 Introduction to Servlet 4.2 Types of Servlet: Generic Servlet and Http Servlet 4.3 Life cycle of servlet 4.4 Session Tracking. 4.5 Servlet with database
3	JUNE	1	JSP 4.6 Introduction to JSP. 4.7 JSP Life Cycle. 4.8 Components of JSP. 4.9 JSP with Database **LAB WORK**
		2	**Chapter 5: Spring & Hibernate** Spring: 5.1 Introduction 5.2 Applications and Benefits of spring 5.3 Architecture and Environment Setup 5.4 Hello World Example 5.5 Core Spring- IoC Containers, Spring Bean Definition, Scope, Lifecycle
			Hibernate 5.6 Architecture and Environment 5.7 Configuration, Sessions, Persistent Class 5.8 Mapping Files, Mapping Types 5.9 Examples
			LAB WORK

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BBA (CA)-- Semester: VI

Teaching Plan 2021-2022

Name of Faculty: prof.sunita kanadikar
Subject: Android Programming **(SUBJECT CODE-604)**

Sr.No.	Month	Week	Topic
1	APR	2	**Chapter 1: INTRODUCTION TO Android Programming** 1.1 What is Android? 1.2 History and Versions 1.3 Android Architecture 1.4 Basic Building Blocks 1.5 Android API Levels 1.6 Application Structure 1.7 First Hello World Program **LAB** **WORK**
		3	**Chapter 2: ACTIVITY, INTENT AND LAYOUT** 2.1 Introduction to Activity 2.2 Activity life cycle 2.3 Introduction to Intent 2.4 Types of Intent(Implicit and Explicit Intent)
		4	2.5 Layout Manager 2.5.1View and View Group 2.5.2 Linear Layout 2.5.3 Relative Layout 2.5.4 Table Layout 2.5.5 Grid Layout 2.5.6 Constraint Layout 2.5.7 Frame Layout 2.5.8 Scroll Layout **LAB** **WORK**
2	MAY	1	**Chapter 3: BASIC UI DESIGN** 3.1 Button(Push Button, Check Box, Radio Button, Toggle Button, Image Button) 3.2 Text Fields 3.3 Spinner 3.4 List View 3.5 Toast 3.6 Scroll View 3.6 ProgressBar View **LAB** **WORK**
		2	3.7 Auto Complete Text View 3.8 Dialog Box 3.8.1 Alert Dialog. 3.8.2 DatePicker Dialog. 3.8.3 TimePicker Dialog. 3.8.4 Custom Dialog
		3	**Chapter 4: ADAPTER AND MENU** 4.1 Base Adapter 4.2 Array Adapter 4.3 ListView using Adapter 4.4GridView using Adapter 4.5Photo Gallery using Adapter 4.6 Using Menu with Views 4.6.1 Option Menu 4.5.2 Context Menu 4.5.3 Popup Menu **LAB** **WORK**
		4	**Chapter 5: THREADS AND NOTIFICATION** 5.1 Worker thread 5.2 Handlers & Runnable 5.3 AsynTask (in detail) 5.4 Broadcast Receiver 5.5 Services 5.5.1Service life Cycle 5.5.2 Bounded Service 5.5.2 Unbounded Service 5.6 Notification 5.7 Alarm 5.8 Accessing Phone services(Call,SMS) **LAB** **WORK**
3	JUNE	1	**Chapter 6: CONTENT PROVIDER** 6.1Content Providers 6.2 SQLite Programming 6.3 SQLiteOpenHelper 6.4 SQLiteDatabse 6.5 Cursor 6.6 Searching for content 6.7 Adding, changing, and removing content 6.8 Building and executing queries 6.9 Android JSON **LAB** **WORK**
		2	**Chapter 7: LOCATION BASED SERVICES AND GOOGLE MAP** 7.1 Display Google Map 7.1.1 Creating the project 7.1.2 Obtaining the Maps API Key 7.1.3 Displaying the Map 7.1.4 Displaying the Zoom Control 7.1.5 Changing Views 7.1.6 Navigating to a specific location 7.1.7 Adding Markers 7.1.8 Getting the location that was touched 7.1.9 Geocoding and Reverse Geocoding 7.2. Getting Location Data 7.3. Monitoring a Location
		3	**LAB WORK**

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BBA (CA) -- Semester: VI

Teaching Plan 2021-2022

Name of Faculty: prof.shilpa thakur
Subject: Dot Net Framework **(SUBJECT CODE-604)**

Sr.No.	Month	Week	Topic
1	APR	2	**Chapter 1: Introduction to DOT NET FRAMEWORK** 1.1 What is Framework? 1.2 Architecture of Dot Net Framework 1.2.1 Common Language Runtime 1.2.2 Common Type System(CTS) 1.2.3 Common Language Specification(CLS) 1.2.3 JIT Compilers 1.2.3 Base Class Library 1.3 IDE (Integrated Development Environment) 1.4 Event Driven Programming
		3	**LAB WORK**
		4	**Chapter 2: Introduction to VB.Net** 2.1 Basics of VB.Net 2.1.1 Operators 2.1.2 Data Types 2.1.3 Control Structures
2	MAY	1	2.2Build Windows Applications 2.2.1 Controls: Form, TextBox, Button, Label, CheckBox, ListBox, ComboBox, RadioButton, DateTimePicker, MonthCalender, Timer, Progressbar,Scrollbar, PictureBox, ImageBox, ImageList, TreeView, ListView, Toolbar, StatusBar, Datagridview 2.2.2 Menus and PopUp Menu 2.2.3 Predefined Dialog controls: Color,Save,File,Open, Font 2.2.4 DialogBox - InputBox(), MessageBox, MsgBox() **LAB WORK**
		2	**Chapter 3: Introduction to C#** 3.1 Language Fundamenta 3.1.1 Data type and Control Constructs 3.1.2 Value and Reference Types,Boxing 3.1.3 Arrays 3.1.4 String class and its various operations 3.1.5 Functions 3.2 Object Oriented Concepts 3.2.1 Defining classes and Objects
		3	3.2.2 Access modifiers 3.2.3 Constructors 3.2.4 Inheritance 3.2.5 Interface 3.2.6 Abstract Class 3.2.7 Method Overloading and Overriding 3.2.8 Delegates **LAB WORK**
		4	**Chapter 4: Introduction to ASP.NET** 4.1 What isASP.NET? 4.2 ASP.NET Page Life Cycle 4.3 Architecture ofASP.NET 4.4 Forms, WebPages, HTML forms, 4.5 Request & Response in Non-ASP.NET pages 4.6 Using ASP.NET Server Controls 4.7 Overview of Control structures 4.8 Functions
3	JUNE	1	4.9 HTML events 4.9.1 ASP.NET Web control events 4.9.2 Event driven programming and postback 4.10 Introduction to Web forms 4.10.1 Web Controls 4.10.2 Server Controls 4.10.3 Client Controls 4.10.4 Navigation Controls 4.10.5 Validations 4.10.6 Master Page 4.10.7 State Management Techniques **LAB WORK**
		2	Chapter 5: Architecture of Ado.Net 5.1 Basics of Ado.net 5.1.1Connection Object 5.1.2Command Object
		3	5.1.3Dataset 5.1.4Data Table 5.1.5Data Reader Object 5.1.6Data Adapter Object 5.2 Datagridview& Data Binding: Insert, Update, Delete records 5.3 Navigation Using Data Source
		4	**LAB WORK**