SYLLABUS

M.B. A. (COMPUTER MANAGEMENT)

3rd SEMESTER

Session 2020 - 2021

Mission of SCS&IT, DAVV

To produce world-class professionals who have excellent analytical skills, communication skills, team building spirit and ability to work in cross cultural environment.

To produce international quality IT professionals, who can independently design, develop and implement computer applications.

Professionals who dedicate themselves to mankind, who are environment conscious, follow social norms and ethics.

School of Computer Science & IT,
Devi Ahilya Vishwa Vidyalaya, Indore
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Course Name MBA (CM) 3rd Semester
Subject Code: CS-6518
Subject Name: Cloud Computing

Aim of the Subject

To provide students with the fundamentals and essentials of Cloud Computing, thus creating a sound foundation while enabling students to start using and adopting Cloud Computing services and tools in their real-life scenarios.

Objectives

1. Provide graduate students with the comprehensive and in-depth knowledge of Cloud Computing concepts, technologies, architecture and applications by introducing and researching state-of-the-art in Cloud Computing fundamental issues, technologies, applications and implementations.
2. Expose the students to frontier areas of Cloud Computing and information systems, while providing sufficient foundations to enable further study and research.

Learning Outcomes

1. The fundamental ideas behind Cloud Computing, the evolution of the paradigm, its applicability; benefits, as well as current and future challenges.
2. The basic ideas and principles in data center design; cloud management techniques and cloud software deployment considerations.
3. Different CPU, memory and I/O virtualization techniques that serve in offering software, computation and storage services on the cloud.
4. Cloud storage technologies and relevant distributed file systems.

Unit 1

Introduction to cloud computing, History, Importance of cloud computing in the current era, characteristics of cloud computing, what cloud computing really is and isn't, pros and cons of cloud computing, technologies in cloud computing, migrating into cloud.

Unit 2

Types of clouds, cloud infrastructure, cloud application architecture, working of cloud computing, trends in cloud computing, cloud service models, cloud deployment models, cloud computing and services pros and cons.

Unit 3

Cloud computing technology, cloud life cycle model, role of cloud modelling and architecture, cloud system architecture, virtualization, types of virtualization,

importance and limitations of various types of virtualization, virtualization in cloud computing.

Unit 4

Data storage, introduction to enterprise data storage, data storage management, file system, cloud data stores, cloud storage characteristics, applications utilizing cloud storage.

Unit 5

Introduction to web services, cloud service deployment tools, management/ administrative services, risk management in cloud computing, introduction to Apache Hadoop.

Text Book(s)

1. Cloud Computing: A practical approach for learning and implementation, 1st edition, Pearson, A. Srinivasan, J. Suresh.

Reference Material(s)

Online Material as and when required.

Course Name MBA (CM) 3rd Semester
Subject Code: CS- 4211
Subject Name: Object Oriented Programming Using JAVA

Aim of the Subject

To give students a good understanding of basic concepts of object-oriented program design using JAVA. To teach and enable students to develop object-oriented programming skills within the Java language; to enable students to develop object-oriented Java p

Objectives

Briefly describe any course development objectives that are being implemented. (eg increased use of IT or web based reference material, changes in content as a result of new research in the field)
As the technologies in Java are changing frequently so with the textbook, latest changes will also be incorporated in the course using web-based material. Students will also be given programming examples and exercises on every topic. The programming assignments will be checked every week in the computer-lab

Learning Outcomes

- Understand basic principles of object-oriented program design using Java.
- Understand the basic and some advanced issues related to writing classes and methods such as data, visibility, scope, method parameters, object references, and nested classes.
- Understand the basic ideas behind class hierarchies, polymorphism, and programming to interfaces.
- Get exposure to exceptions and basic I/O streams.
- Develop solid Java programming skills and the ability to put in practice the acquired knowledge and understanding of the Java language and object-oriented design in relatively simple case studies

Unit 1

Introduction to Java: Features of Java, Object-oriented Programming Overview, Introduction of Java Technologies, Java Applets and Applications, Java Platform, Java Program structure, Basic Building Blocks (comments, character set, constants), Data Types, Variables, Operators, Expressions, Typecasting, Control Structures, Loops, Memory concepts, Introduction to Class, Objects, Methods and Instance Variables, Naming Conventions, Constructors, Method Overloading, Static Method, Static Field, Math Class, this reference, Garbage collection and finalize method.

Unit 2

String Handling: The String Constructors, String Operations, Character Exaction, String Comparison, String Buffer. Arrays: Creating an array, Enhanced for Statement, Passing Multidimensional Arrays, Arrays to Method, Variable-Length Argument lists, Using Command-line Arguments. Wrapper Class : Introduction to wrapper classes. Inheritance: Relationship between Superclasses and Subclasses, Using super, Constructor in Subclasses, The Object Class, Object Copying in Java. Polymorphism: Method Overriding, Upcasting, Dynamic Method Dispatch, final Field, Method and classes, Abstract classes and Methods, instance of operator, Downcasting, Class class, Runtime type Identification

Unit 3

Packages and Interfaces: Defining a Package, Understanding CLASSPATH, Access Protection, Importing packages, Creating own Packages. Defining an Interface, Properties of Interface, Advantages of Interface Achieving Multiple Inheritance through Interfaces, Variables in Interfaces, Comparable Interface. Exception Handling: Introduction, keywords, Types of Exceptions, Java Exception Hierarchy, finally Block, Chained Exceptions, Declaring new Exception Types, Preconditions and Post-conditions. Streams and Files: Introduction, Data Hierarchy, Files and Streams, Sequential-access Text Files, Object Serialization, Random-Access files, Java Stream Class Hierarchy.

Unit 4

Multithreading: Introduction, Java Thread Model, Thread priorities, Thread life cycle, Creating Thread, Thread Execution, Thread Synchronization, Classes and Interfaces in java.util.concurrent, Monitor and Monitor Locks, Inter-Thread Communication. Introduction To GUI : Introduction, Overview of swing Components, Introduction to Event Handling, Common GUI Event Type and Listener Interfaces, Adapter Classes, Layout Managers Applets: Applet Basics, Applet Architecture, Applet Life Cycle Methods, Applet HTML Tag and Attributes, Executing Applet in Web Browser and in Appletviewer.

Unit 5

Generic and Collection API: Introduction, Motivation for Generic Methods, Generic Methods: Implementation and Compile- time Translation Issues, Overloading Generic Methods, Generic Classes, Raw Types, Generic and Inheritance Database connectivity: JDBC, The design of JDBC, Executing Queries. New Feature of Java: Java Reflection API, Auto boxing, Annotations, Regular Expressions.

Text Book(s)

1. Java 2: The Complete Reference by Herbert Schildt, Tata McGraw- Hill, 8th Edition,
2011.

Reference Material(s)

1. The Java Programming Language, Ken Arnold , James Gosling , David Holmes, 3rd Edition, Pearson Education, 2000.
2. Head First Java, Kathy Sierra, Bert Bates, O'Reilly Publication, 2nd Edition, 2005.

Course Name MBA (CM) 3rd Semester
Subject Code: CS-5416
Subject Name: IT Infrastructure Management

Aim of the Subject

Develop skill for IT Infrastructure Management

Objectives

1 Understand IT Infrastructure and Management tools
2 Understand Servers Management
3 Understand Networking tools

Learning Outcomes

Setup IT Infrastructure for users

Unit 1

Understand H/w resources for network

Unit 2

Prepare IT Infrastructure

Unit 3

Developing Servers

Unit 4

Developing Application Servers

Unit 5

Understanding of Security Management

Text Book(s)

1. Inside the PC, Sixth Edition, Prentice Hall Computer Publications, author Peter Norton.
2. Data Communication and Networking, 2nd Edition, Tata McGraw-Hill , author Behrouz A, Forouzan

Reference Material(s)

1Microsoft Windows Server 2008: The Complete Reference. TataMcGraw-Hill, author Danielle Ruest,Nelson Ruest

Course Name MBA (CM) 3rd Semester
Subject Code: CS-4411
Subject Name: Introduction to Enterprise Resource Planning

Aim of the Subject

To make students aware about the day to day terms used in ERP, CRM and HRM modules of ERP

Objectives

1. Learn what is ERP and its usage?
2. Learn what is CRM and where it is used?
3. Learn what is HRM and where it is used?
4. Important terms used in CRM/HRM Modules of any ERP?

Learning Outcomes

understand the analytics with examples to prepare data and information from data as an outcome
ERP, CRM and HRM module terms understanding

Unit 1

Introduction to ERP

Unit 2

Introduction to CRM

Unit 3

Introduction to HRM

Unit 4

CRM Terms

Unit 5

HRM Terms

Text Book(s)

1. ERP Next Documentation
2. A Guide to ERP by Pro. Dr. Lineke Sneller RC

Reference Material(s)

https://docs.erpnext.com/

Course Name MBA (CM) 3rd Semester
Subject Code: CS-5620
Subject Name: Web Technology and E-Commerce

Aim of the Subject

This course focuses on principles of e-commerce from a business perspective, providing an overview of business and technology topics, business models, virtual value chains and social innovation and marketing strategies. In addition, some of the major issu

Objectives

1. On completion of this course, a student will be familiar with client server architecture and able to develop a web application.
2. Students will gain the skills and project-based experience needed for entry into web application and development careers.
3. Understand concept of Ecommerce and its types. Be familiarized with technologies for Ecommerce.
4. Understand different types of Online Payment systems. Understand Selling and marketing on web. Be familiarized with concept of E-business and E-business Models. Understand various E-business Strategies.

Learning Outcomes

1. Describe the importance of IT enabled services and challenges Identify strategic IT planning for software development.
2. Recognize enterprise IT architecture for Information technology. Illustrate various IT web services for betterment of knowledge.
3. Students use their skills to find out various current IT trends in ITES.
4. Design a basic web site using HTML5 and CSS3 to demonstrate responsive web design.
5. Implement dynamic web pages with validation using JavaScript objects by applying different event handling mechanism.
6. Use AJAX Programming Technique for development.
7. Develop simple web application using server side PHP programming and Database Connectivity using MySQL.

Unit 1

HTML & Forms: Introduction To HTML, WWW, W3C, web publishing, Common HTML, Tags Physical & Logical, Some basic tags like changing background color of page, text color etc., Text formatting tags, Ordered & Unordered Lists Tags, Inserting image, Links: text, image links, image mapping , Tables , Frames, Form: Introduction with text box, text area, buttons, List box, radio, checkbox etc.

Unit 2

Internet Basics 1 Overview of Internet, history, web system architecture, Uniform Resource Locator, HTTP protocol basics, HTTP request & response, CSS: Introduction To Style sheet, types of style sheets- Inline, External, Embedded CSS, text formatting properties, CSS Border, margin properties, Positioning Use of classes in CSS, color properties, use of .

Unit 3

JavaScript: Introduction to script, types, Introduction of JavaScript, JavaScript identifiers, operators, control & Looping structure, Intro of Array, Array with methods, Math, String, Date Objects with methods User defined & Predefined functions, AJAX introduction, implementation, applications.

Unit 4

Server configuration, JSP Basics: JSP lifecycle, Directives, scripting elements, standard actions, implicit objects. Concept of session, Starting session, Modifying session variables, Concept of cookies, Handling of cookies, GET and POST methods, database connectivity

Unit 5

Introduction to E-Commerce, The Anatomy of E-Commerce Applications, E Commerce Framework, E-Commerce Consumer Applications, E-Commerce organization Applications, Advantageous and disadvantageous of E-Commerce, Electronic Payment Systems: Types of Electronic payment Systems, Digital Token-Based Electronic Payment Systems, Smart Cards, Credit Card Based Electronic Payment Systems, EDI Application in Business, Security and Privacy Issues in EDI, Ethical, Social and Political issues in E-Commerce.

Text Book(s)

1. K. Mukhar, “Beginning Java EE 5: From Novice to Professional”, Wrox Press.
2. 1. Schafer, Steven M. Web standards programmer's reference: HTML, CSS, JavaScript, Perl, Python, and PHP. John Wiley & Sons, 2007.
3. 2.Batross, Ivan. Web Enabled Commercial Application Development Using HTML, DHTML, Javascript, Peril CGI. Bpb Publications, 2009.
4. Ravi Kalakota and Andrew B. Whinston, Frontiers of Electronic Commerce, First Edition, 2000.

Reference Material(s)

1. M. Hall, L. Brown, “Core Servlets and Java Server Pages”, 2nd edition, Pearson Education
2. Sebesta, Robert W. Programming the world wide web. Pearson Addison Wesley, 2008.

3. Glass, Michael K., et al. Beginning PHP, Apache, MySQL Web Development. John Wiley & Sons, 2004.
4. Powell, Thomas A. HTML: the complete reference. McGraw-Hill Professional, 2002.