



C and C++ Training

The C Language

- C Program Compilation
- Execution Process
- Tokens of C Program
- C Instructions
- Constants, Variables
- Identifiers and Keywords
- Primitive Data Types
- Structures – The Definition
- Structures – Declaration & Type
- Accessing Elements of Structure
- Range of Signed/Unsigned Data-types
- Efficient way of Printing Pointer
- Compiler Memory Allocation for Data-types
- Compiler Memory Allocation for Structures
- Data-type Alignments
- Compiler Memory Allocation for Unions
- Union – Data Corruption
- Practical Usage of Unions

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AJLON TECHNOLOGIES

- *Practical Usage of Bitfields*
 - *Printing every byte of an Integer*
 - *Enumeration*
 - *Typedef Statements*
 - *Practical example of Typedef Usage*
-
- *Bit-Fields in Structure*
 - *Practical examples of Bitfield Usage*
 - *Structure Padding & Pitfalls*
 - *Programming Model & Memory Sizes*
 - *Why Sizeof Int and Long is 4 or 8?*
 - *IA-32, IA-64, ILP-32, LP64, x86-64*
 - *Array – Representation*
 - *Array – Memory Allocation*
 - *Array – Declaration & Initialization*
 - *Two Dimensional Arrays*

Pointers

Accessing a Variable through Pointer

- *Pointer – Memory Allocation*
- *Pointer – Declaration & Initialization*
- *Pointer – Dereferencing*
- *Pointers & Arrays*
- *Character Arrays using Pointers*

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AJLON TECHNOLOGIES

- *Array of Character Pointers*
- *Memory Diagram – Array of Char Pointers*
- *Arrays as Pointers – $a[i] == i[a]$?*

Constant Pointers

- *Pointer Arithmetic*
- *String Handling Functions*
- *String Conversion Functions*
- *Efficient usage of `sscanf()`/`sprintf()`*

Computing Basic

- *Binary & Octal Systems*
- *Decimal & Hexadecimal Systems*

Signed Representations in Memory

- *Binary Shifts – Right & Left*
- *Sign Bits and Bit-Shift Operations*
- *ASCII Representations*
- *Endian-ness – Little Vs Big*
- *Endian-ness – Portability Issues*

Operators

- *Bitwise Operations*
- *Logical Operators – Short Circuit*
- *Bitwise Vs Logical Operations*

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AJLON TECHNOLOGIES

- *sizeof() operator*
- *Pitfalls/Issues with sizeof() usage*
- *Pointer Increment & Scaling*
- *Operator Precedence*
- *Operator Associativity*
- *True meaning of Associativity*
- *Examples of Precedence & Associativity*
- *Ternary Operator Associativity Rule*

Data-type Conversion Rules

- *Float to Int to Float Conversions*
- *Printf Idiosyncracies*
- *Signed Vs Unsigned – Pitfalls*

Concept of Sequence Points

- *Example of Sequence Points*

Storage Classes

- *Storage Class Specifiers*
- *Scope of a Variable*
- *Register, Auto, Static, Extern*
- *Why Register Class and Practical Examples*
- *Automatic Variables and Stack*
- *Static Variables and Functions*
- *True meaning of Extern*
- *How to Use extern across Multiple Files with Examples*
- *Best Practices for Extern Usage*

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- *Local/Block/Global Scope*
- *Nesting of Scope*
- *Lifetime of a Variable*
- *Linkage of a Variable*
- *What is Const?*

Memory

- *Dynamic Memory Allocations*
- *malloc, calloc, realloc, free*
- *Heap Memory*
- *Stack Memory – Pitfalls*
- *Dangling Pointers*
- *DMA – Errors*
- *Best Practices for malloc() & free()*
- *DMA – Unspecified Behaviors*

Functions & Pointers

- *Invoking Functions*
- *Passing Arguments to Functions*
- *Call by Value & Reference*
- *Is C call by Value?*
- *Is C call by Reference?*
- *Array as Function Argument*
- *Rules for Array Argument Passing*

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AJLON TECHNOLOGIES

- *Multi-dimensional Array Argument Passing*
- *Structure as Function Argument*
- *Static Vs Dynamic Runtime Environment*
- *Function Call and Runtime Stack*
- *Rules for Evaluation of Function Arguments*

Memory Organization

- *Code Segment*
 - *Data Segment*
 - *Heap Segment*
 - *Stack Segment*
 - *free space*
 - *register space*
 - *Stack Frames*
 - *Calling Sequence*
 - *View of Runtime Stack with Example*
 - *Access to Local Variable in Stack*
 - *Local Temporaries*
 - *Function Pointers*
 - *Declaration and Usage of Function Pointers*
-
- *Function Pointers as Function Parameters*
 - *Practical Example of Function Pointers*
 - *Pointer to an Integer Array*

Preprocessor

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AJLON TECHNOLOGIES

- Preprocessor – #include statements
- Preprocessor – #define statements
- Preprocessor – Conditional Compilation
- Preprocessor – Nested Macros
- Preprocessor – Multiline Macros
- Preprocessor – Stringizer
- Preprocessor – Token Concatenation
- Preprocessor – Useful Directives
- Conditional Directives for Debugging
- Where Macros are Heavily Used
- Practical Examples of Macros
- Macros Pitfalls
- Macros Vs Enums
- Inline Functions
- Macros Vs Inline
- Inline Recursive Functions
- Command Line Argument
- Environment Variables in C Programs
- Recursion Example
- Recursion Vs Iteration
- Code/Space/Time Complexity

Standard I/O Library

- Files & Streams

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AJLON TECHNOLOGIES

- Streams Buffers
- No Buffer, Line Buffer and Full Buffer
- Setting & Flushing Buffers
- File Access
- File Access Modes
- Sequential Vs Random Access
- Concept of File Offsets
- File Operation Errors
- End-of-File Condition?
- Return Values and Error Values
- Character Based File I/O
- Line Based File I/O
- Formatted File I/O
- Block File I/O
- File Random Access Method

Course Features & Benefits:-

- Experienced Corporate Trainer
- Additional Practice sessions
- Learning day to day operations.
- Lowest Fee
- Full Course covering every advanced topic
- Experienced Corporate Trainer
- Individual attention

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Big Data Training

Introduction to Big Data

Big data is an all-encompassing term for any collection of data sets so large and complex that it becomes difficult to process using traditional data processing applications.

The challenges include analysis, capture, curation, search, sharing, storage, transfer, visualization, and privacy violations. The trend to larger data sets is due to the additional information derivable from analysis of a single large set of related data, as compared to separate smaller sets with the same total amount of data, allowing correlations to be found to “spot business trends, prevent diseases, combat crime and so on.

Overview of Big Data stores

- Data models:
 - Key value
 - Graph
 - Document
 - Column-family
 - Hadoop Distributed File System
 - HBase
 - Hive



AJLON TECHNOLOGIES

- *Cassandra*
- *Hypertable*
- *Amazon S3*
- *BigTable*

- *DynamoDB*
- *MongoDB*
- *Redis*
- *Riak*
- *Neo4J*

Selecting Big Data stores

- *Choosing the correct data stores based on your data characteristics*
- *Moving code to data*
- *Implementing polyglot data store solutions*
- *Aligning business goals to the appropriate data store*

Processing Big Data

Integrating disparate data stores

- *Mapping data to the programming framework*
- *Connecting and extracting data from storage*
- *Transforming data for processing*
- *Subdividing data in preparation for Hadoop MapReduce*

Employing Hadoop MapReduce

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- *Creating the components of Hadoop MapReduce jobs*
- *Distributing data processing across server farms*
- *Executing Hadoop MapReduce jobs*
- *Monitoring the progress of job flows*

The building blocks of Hadoop MapReduce

- *Distinguishing Hadoop daemons*
- *Investigating the Hadoop Distributed File System*

Handling streaming data

- *Comparing real-time processing models Leveraging Storm to extract live events*
- *Lightning-fast processing with Spark and Shark*

Abstracting Hadoop MapReduce jobs with Pig

- *Communicating with Hadoop in Pig Latin*
- *Executing commands using the Grunt Shell*
- *Streamlining high-level processing*

Performing ad hoc Big Data querying with Hive

- *Persisting data in the Hive MegaStore*
- *Performing queries with HiveQL*
- *Investigating Hive file formats*

Creating business value from extracted data

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- *Mining data with Mahout*
- *Visualizing processed results with reporting tools*
- *Querying in real time with Impala*

Developing a Big Data Strategy

Defining a Big Data strategy for your organization

- *Establishing your Big Data needs*
- *Meeting business goals with timely data*
- *Evaluating commercial Big Data tools*
- *Managing organizational expectations*

Enabling analytic innovation

- *Focusing on business importance*
- *Framing the problem*
- *Selecting the correct tools*
- *Achieving timely results*

Implementing a Big Data Solution

- *Selecting suitable vendors and hosting options*
- *Balancing costs against business value*
- *Keeping ahead of the curve*

Course Features & Benefits:-

- *Experienced Corporate Trainer*
- *Additional Practice sessions*

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AJ AJLON TECHNOLOGIES

- *Learning day to day operations.*
- *Lowest Fee*
- *Full Course covering every advanced topic*
- *Individual attention*

Hadoop Training

About The Hadoop

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Hadoop is a free, Java-based programming framework that supports the processing of large data sets in a distributed computing environment. It is part of the Apache project sponsored by the Apache Software Foundation.

Hadoop makes it possible to run applications on systems with thousands of nodes involving thousands of terabytes. Its distributed file system facilitates rapid data transfer rates among nodes and allows the system to continue operating uninterrupted in case of a node failure. This approach lowers the risk of catastrophic system failure, even if a significant number of nodes become inoperative.

Hadoop Course Syllabus:

Introduction to Distributed systems

- High Availability
- Scaling
- Advantages

Introduction to Big Data

- Big Data opportunities
- Big Data Challenges

Introduction to Hadoop

- Hadoop Distributed File System
- Hadoop Architecture
- Map Reduce & HDFS

Hadoop Eco Systems

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- *Introduction to Pig*
- *Introduction to Hive*
- *Introduction to HBase*
- *Other eco system Map*

Hadoop Administration

- *Hadoop Installation & Configuration*
- *Setting up Standalone system*
- *Setting up pseudo distributed cluster*
- *Setting up distributed cluster*

The Hadoop Distributed File System (HDFS)

- *HDFS Design & Concepts*
- *Blocks, Name nodes and Data nodes*
- *Hadoop DFS The Command-Line Interface*
- *Basic File System Operations*
- *Reading Data from a Hadoop URL*
- *Reading Data Using the File System API*

Map Reduce

- *Map and Reduce Basics.*
- *How Map Reduce Works*
- *Anatomy of a Map Reduce Job Run*
- *Job Submission, Job Initialization, Task Assignment, Task Execution*
- *Progress and Status Updates*
- *Job Completion, Failures*
- *Shuffling and Sorting.*

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- *Combiner*
- *Hadoop Streaming*

Map/Reduce Programming – Java

- *Hands on “Word Count” in Map/Reduce in Eclipse*
- *Sorting files using Hadoop Configuration API discussion*
- *Emulating “grep” for searching inside a file in Hadoop*
- *Chain Mapping API discussion*
- *Job Dependency API discussion and Hands on*
- *Input Format API discussion and hands on*
- *Input Split API discussion and hands on*
- *Custom Data type creation in Hadoop*

Course Features & Benefits:-

- *Experienced Corporate Trainer*
- *Additional Practice sessions*
- *Learning day to day operations.*
- *Lowest Fee*
- *Full Course covering every advanced topic*
- *Individual attention*

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SQL Server DBA Training

This course is intended for :

*Database Developer, Database Administrator, Business Intelligence Developer
No prior experience is presumed.*

This SQL Server DBA Training is designed for the practicing Microsoft SQL Server professional but it is useful to anyone interested in learning SQL Server database administration. This includes SQL Server developers, SQL Server DBAs, SQL Server web developers and any computer professional who needs to understand the architecture of an SQL Server database.

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The course assumes a basic knowledge of computer programming techniques, relational database concepts, SQL, and basic SQL Server architecture.

Curriculum Design

This SQL Server training was designed by experienced SQL Server database administrators with extensive real-world experience.

Learning Objectives:

The primary objective of this SQL Server DBA training is to provide each student with the knowledge and secrets to be successful as a practicing SQL Server DBA. The student will gain confidence in their SQL Server DBA knowledge and learn the tricks and traps of the SQL Server OCP DBA exam.

Using a proven training combination of intense instruction and practicum the student should have a firm understanding of SQL Server Database Administration. The student will successfully install and configure a working

SQL Server database, create tablespaces and files, manage security and user access, and create tables and write SQL Server queries.

Hands-on/Lecture Ratio:

This class is 50% hands-on, 50% lecture.

Software Needed on Each Student PC:

- Windows Server 2003, Windows XP Professional, Windows vista or 7 with at least 1GB RAM
- SQL Server 2008

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Course Completion:

After completing this course, students will be able to:

- Define database
- Define database objects
- Explain Database Objects
- Define SQL Commands and their uses
- Writing Complex queries
- Developing T-SQL Programs such as Stored Procedures and Triggers
- Overview of Administration All students will receive:
- A copy of Guide to SQL Server 2008

Syllabus:

WEEK 1

- SQL SERVER 2012
- INTRODUCTION

- What is a Database?
- Database Architectures
- SQL Server 2012 Architecture
- Editions of SQL Server 2012
- Installing SQL Server 2012
- Tools and utilities in SQL Server 2012

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CREATING AND MANAGING DATABASES

- *Data Storage*
- *System Databases*
- *Creating User-defined Databases*
- *Working with Databases*
- *Case Study: creating an Inventory*
- *Database*
- *SQL-The Structured Query*
- *Language*

WEEK 2

WORKING WITH TABLES

- *Types of Tables*
- *Creating and Using tables*
- *Creating and using Partitioned Tables*

RETRIEVING DATA

- *SELECT Statement*
- *FROM and WHERE Clauses*
- *Using GROUP BY Clause*

- *Using HAVING Clause*
- *ORDER BY Clause*
- *Creating a Copy Table*

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AJLON TECHNOLOGIES

DATA INTEGRITY

- *What is Data Integrity?*
- *Types of Integrity Constraints*
- *Enabling and Disabling Constraints*
- *Rules and Defaults*
- *Case Study: creating tables with data integrity in Inventory*
- *Database*

JOINS

- *What is a Join?*
- *Types of Joins*
- *Alternate syntax for joins*
- *Complex Joins*

WEEK 3

BUILT-IN FUNCTIONS

- *Aggregate Functions*
- *Numeric Functions*
- *Date and Time Functions*
- *String Functions*
- *CAST and CONVERT*

RETRIEVING DATA -ADVANCED

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AJ AJLON TECHNOLOGIES

- *What is a sub query?*
- *Types of Sub Queries*
- *Working with CORRELATED*

SUBQUERIES

- *Working with CTE's*
- *Operators*
- *LIKE, IN, ANY, BETWEEN, EXIST*
- *Case Study: Querying Inventory*
- *Database*

VIEWS

- *What is a View?*
- *Creating and using Views*
- *Materialized Views*

NORMALIZATION

- *What is Normalization?*
- *Normal Forms*
- *Advantages and Disadvantages*
- *Denormalization*

T-SQL PROGRAMMING

- *INTRODUCTION*
- *Fundamentals*
- *Control-of-flow Language Statements*
- *Scripts and Batches*

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AJLON TECHNOLOGIES

CURSORS

- *What is a Cursor?*
- *Types of Cursors*
- *Statements in the usage of a Cursor*

TRANSACTIONS

- *ACID Properties*
- *Types of Transactions*
- *COMMIT, ROLLBACK, SAVE*

STORED PROCEDURES

- *Definition*
- *Types of Stored Procedures*
- *Creating a Stored Procedure*
- *Input and Output Parameters*
- *Executing a Stored Procedure*
- *Error Handling in Stored Procedures*
- *Debugging a Stored Procedure*

TRIGGERS

- *Definition*
- *Creating a Trigger*
- *Types of Triggers*
- *DDL Triggers*

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AJLON TECHNOLOGIES

- *DML Triggers*
- *INSTEAD OF Triggers*
- *Setting Triggering Order*

WEEK 4

USER-DEFINED FUNCTIONS

- *What is a UDF?*
- *Creating and using UDF's*
- *UDF's returning a table*

SECURITY

- *Security Basics*
- *Authentication Modes*
- *Creating a login*
- *Providing permissions on a database*
- *Providing permissions on database*
- *objects*

PERFORMANCE TUNING

- *Tuning Queries*
- *When to Tune?*
- *Strategies in Tuning*
- *Evaluating Query Performance*

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AJLON TECHNOLOGIES

- *Tuning Query Performance*
- *Finding out which queries to Tune*
- *Working with Indexes*

Index Uses

- *Types of Indexes*
- *Creating Indexes*
- *Index Fragmentation*

XML INTEGRATION

- *XML Datatype*
- *Using XML Schema collections*
- *Retrieve Related Data as XML*
- *Transform XML data into Relational*

Data

- *Query XML Data*
- *Manage XML Data*

EXTENDING SQL SERVER FUNCTIONALITIES

- *Using SQLCLR and FileStreams*
- *Implementing Spatial Datatypes*
- *Implementing FullText Search*
- *Implementing Service Broker Solutions*
- *Distributed Queries*

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- Backup & Restoring Databases
- NEW FEATURES IN SQL

SERVER 2012

- Sequences
- Enhanced Exception Handling in stored

Procedures

- Introduction to Data Quality
- Services(DQS)

Dot Net Training

Asp.Net Training Course Content

- Web Programming Introduction
- HTML and JavaScript
- Traditional ASP Basics
- ASP.NET Introduction & Controls
- ASP.NET Architecture
- CSS & Themes
- Redirecting User to Another Page

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- *Master Pages*
- *Working with User Control*
- *Validation Controls*
- *ASP.NET State Management*
- *Web Configuration File and Global.asax*
- *Authentication & Authorization*
- *Application Service Providers*
- *Data Bound Controls*
- *Web Caching*
- *Globalization and Localization*
- *AJAX.NET*
- *Routing*
- *Understanding & Publishing Web Application.*

Course Features & Benefits:-

- *Experienced Corporate Trainer*
- *Additional Practice sessions*
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Java Training

- 1. Develop the code with various Java data types, conditions and loops.*
- 2. Implement arrays, functions and string handling techniques.*
- 3. Understand object oriented programming through Java using Classes, Objects and various Java concepts like Abstract, Final etc.*

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4. Implement multi-threading and exception handling.
5. Use parse XML files using DOM and SAX in Java.
6. Write a code in JDBC to communicate with Database.
7. Develop web applications and JSP pages.
8. Interact with the database using hibernate framework.
9. Write code with spring framework components like Dependency Injection and Auto Wiring

Who should go for this course?

This course is designed for professionals aspiring to become Java Developers, Programmers, Web Developers, Web Designers, Programming Hobbyists, Database Administrators, Youngsters who want to kick start their career are the key beneficiaries of this course.

Pre-requisites

Attendees should have prior programming experience and be familiar with basic concepts such as variables/scopes, flow-control, and functions. Prior

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exposure to object-oriented programming concepts is not required, but definitely beneficial.

Why learn Java/J2EE

Java is a general-purpose, class-based, object-oriented computer programming language that was designed by James Gosling at Sun Microsystems in 1995.

Key Highlights of Java:

Platform Independent: This allows programmers to develop applications that can run on any operating system.

Usability of Java:

Java is most widely used programming language. It is present everywhere. It really doesn't matter which domain you are working in, you will surely come across Java sooner or later!

Open Source:

The good news is that Java is available for free! All the development tools and the environment (JRE & JDK) that is used to develop Java applications are absolutely free of cost.

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Android:

Irrespective of the fact that you are tech savvy or not, most of us are badly bitten by the Android bug! Android is in great demand today and fortunately you need Java for Android development. Hence, the importance of Java has increased even more.

Hadoop:

Hadoop is one of the most trending framework for processing Big Data. It has been designed and developed in Java.

In spite of having a tough competition on the server side from Microsoft and other companies, Java is doing extremely well on mobile platforms, thanks to Android! It has also been the primary language for Hadoop Developers.

WEEK 1

OOPS Concepts

- *Advantage of OOPs*
- *Object and Class*
- *Method Overloading*
- *Constructor*
- *static variable, method and block*
- *this keyword*
- *Inheritance (IS-A)*

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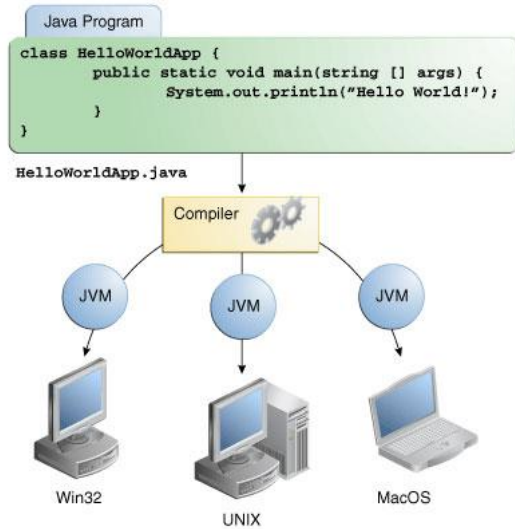
- *Aggregation and Composition(HAS-A)*

- *Method Overriding*
- *Covariant Return Type*
- *super keyword*
- *Instance Initialize block*
- *final keyword*
- *Runtime Polymorphism*
- *static and Dynamic binding*
- *Abstract class and Interface*
- *Down casting with instance of operator*
- *Package and Access Modifiers*
- *Encapsulation*
- *Object class*
- *Object Cloning*
- *Java Array*
- *Call By Value and Call By Reference*
- *strictfp keyword*
- *Creating API Document*

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String Handling

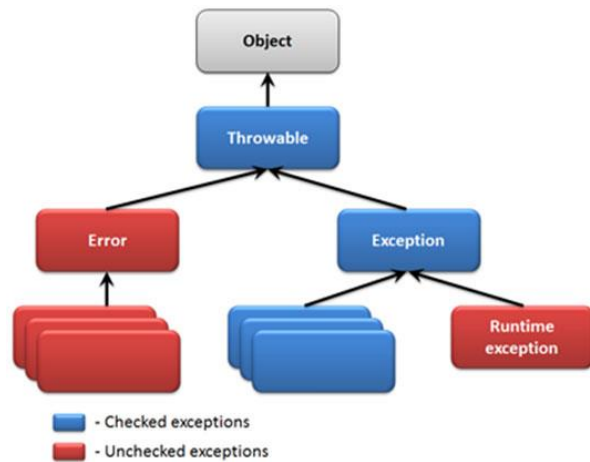
- *String*
- *Immutable String*
- *String Comparison*
- *String Concatenation*
- *Substring*
- *Methods of String class*
- *String Buffer class*
- *String Builder class*
- *Creating Immutable class*
- *to String method*
- *StringTokenizer class*

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Exception Handling

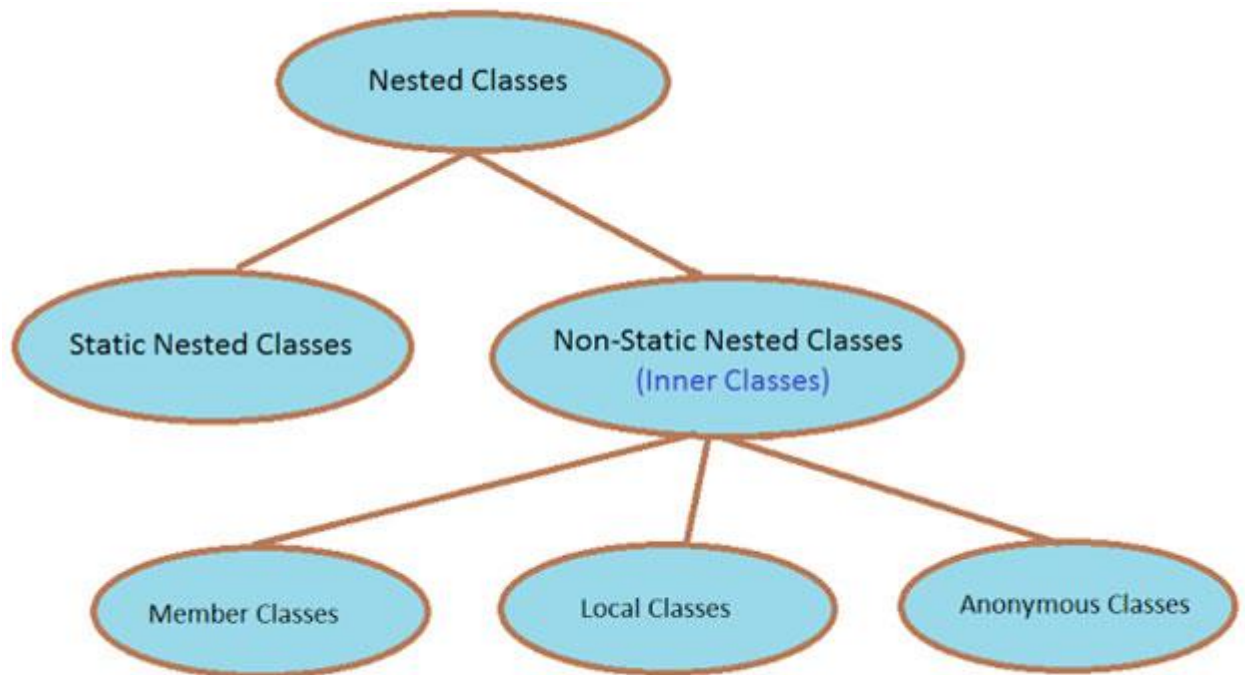


- *Exception Handling*
- *try and catch block*
- *multiple catch block*
- *Nested try*
- *finally block*
- *throw keyword*
- *Exception Propagation*
- *throws keyword*



- *Exception Handling with Method Overriding*
- *Custom Exception*

Nested Classes



- *Nested Class*
- *Member Inner class*
- *Anonymous Inner class*
- *Local Inner class*
- *static nested class*
- *Nested Interface*



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Multithreading

- *Multithreading*
- *Life Cycle of a Thread*
- *Creating Thread*
- *Thread Scheduler*
- *Sleeping a thread*
- *Joining a thread*
- *Thread Priority*
- *Daemon Thread*
- *Thread Pooling*
- *Thread Group*
- *Shutdown Hook*
- *Performing multiple task by multiple thread*
- *Garbage Collection*
- *Runnable class*

WEEK 3

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Synchronization

- Synchronization
- synchronized block
- static synchronization
- Deadlock
- Inter-thread Communication
- Interrupting Thread

Input and output

- *FileOutputStream & FileInputStream*
- *ByteArrayOutputStream*
- *SequenceInputStream*
- *BufferedOutputStream & BufferedInputStream*
- *FileWriter & FileReader*
- *CharArrayWriter*
- *Input from keyboard by InputStreamReader*
- *Input from keyboard by Console*
- *Input from keyboard by Scanner*
- *PrintStream class*
- *PrintWriter class*
- *Compressing and Uncompressing File*
- *Reading and Writing data simultaneously*
- *DataInputStream and DataOutputStream*



WEEK 4

Serialization

- *Serialization & Deserialization*
- *Serialization with IS-A and Has-A*
- *transient keyword*

Collection

- *Collection Framework*
- *ArrayList class*
- *LinkedList class*
- *ListIterator interface*
- *Hash Set class*
- *LinkedHashSet class*
- *TreeSet class*
- *PriorityQueue class*
- *ArrayDeque class*
- *Map interface*
- *HashMap class*
- *LinkedHashMap class*
- *TreeMap class*



- *Hashtable class*
- *Comparable and Comparator*
- *Properties class*

Types of Java Applications

There are mainly 4 type of applications that can be created using java:

1) Standalone Application

It is also known as desktop application or window-based application. An application that we need to install on every machine such as media player, antivirus etc. AWT and Swing are used in java for creating standalone applications.

2) Web Application

An application that runs on the server side and creates dynamic page, is called web application. Currently, servlet, jsp, struts, jsf etc. technologies are used for creating web applications in java.

3) Enterprise Application

An application that is distributed in nature, such as banking applications etc. It has the advantage of high level security, load balancing and clustering. In java, EJB is used for creating enterprise applications.

4) Mobile Application



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An application that is created for mobile devices. Currently Android and Java ME are used for creating mobile applications.

WEEK 5

What is J2EE?

Java 2 enterprise Edition (J2EE) is a platform for building distributed, scalable, platform independent server side Enterprise Applications. Today java is one of the most mature and commonly used programming languages for building enterprise software. Java is providing enterprise solutions to small, medium and large enterprise throughout the world and is a leading player in mobile applications. The need of java professionals is growing day by day, which is in itself, a testimony to its success.

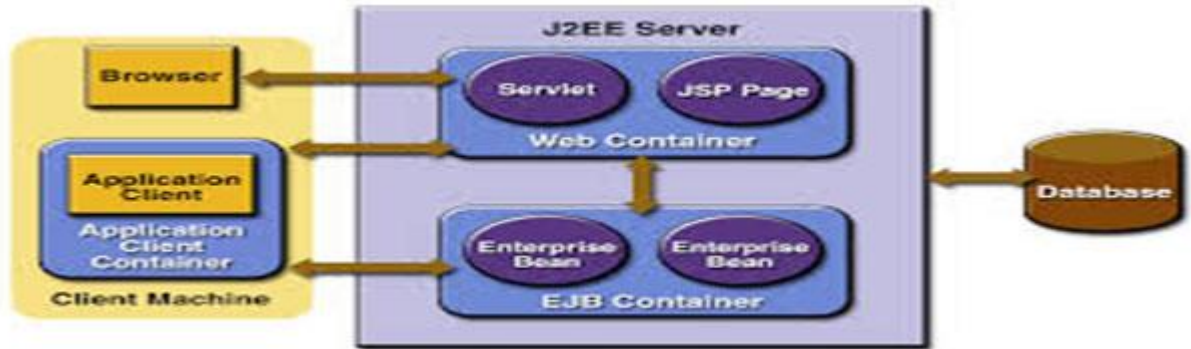
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Prerequisites

Student should have good knowledge of a modern, object oriented language such as C++, C#.

Methods, functions, object oriented concepts should be cleared.

Should have good knowledge of DBMS and RDBMS concepts

How we Provide

Java Training provided by Real-time JAVA Application Developer of our company, has more than 8-15years of domain experience.

We will provide real time project training with code explanation and implementation.

Our training modules are completely designed according to current IT market.

Student will go through the training of OOPs concept and DBMS, RDBMS concepts as complimentary package before starting of Java Training.

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We offer regular, fast track and weekend training in Java training.

Our major concern is to provide java technology training to you so that you can code smarter and develop robust programs and applications more quickly using any platform – including Oracle’s application server and web infrastructure software.

After completion of Java training by VKV, students can easily develop and deploy your own real-time java application.

Software :

- *NetBeans IDE*
- *Java*
- *My SQL*

Benefits of Courses

After completion of Java training students can easily able to use object-oriented features of the Java language, such as encapsulation, inheritance and polymorphism.

- *Use Java technology data types and expressions*
- *Use Java technology flow control constructs*
- *Use arrays and other data collections*
- *Implement error-handling techniques using exception handling*
- *Can easily create GUI applications using Swing components: panels, buttons, labels, text fields, and text areas*

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- *Create multithreaded programs.*

Introduction of J2EE

- *Introduction to Enterprise Edition*
- *Distributed Multitier Applications*
- *J2EE Containers*
- *Web Services Support*
- *Packaging Applications*
- *J2EE 1.4 APIs*

WEEK 6

Server Programming using Servlets

- *What is Web Application?*
 - *What Is a Servlet?*
 - *Servlet Life Cycle*
 - *Sharing Information*
 - *Using Scope Objects*
 - *Controlling Concurrent Access*
 - *Getting Information from Requests*
 - *Constructing Responses*
 - *Filtering Requests and Responses*
-
- *Programming Filters*
 - *Customized Requests and Responses*

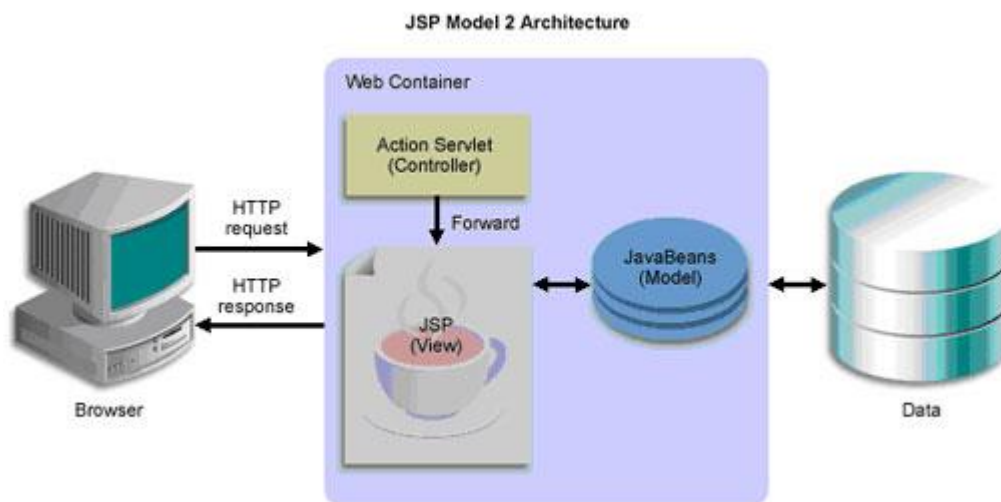
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- *Specifying Filter Mappings*
- *Invoking Other Web Resources*
- *Including Other Resources in the Response*
- *Transferring Control*
- *Accessing the Web Context*
- *Maintaining Client State*
- *Session Management*
- *Session Tracking*

Java Server Pages (JSP)



- *Java Server Pages Technology*
- *The Life Cycle of a JSP Page*
- *Translation and Compilation*
- *Creating Static Content*
- *Jsp Basic Tags and its uses*
- *Creating Dynamic Content*

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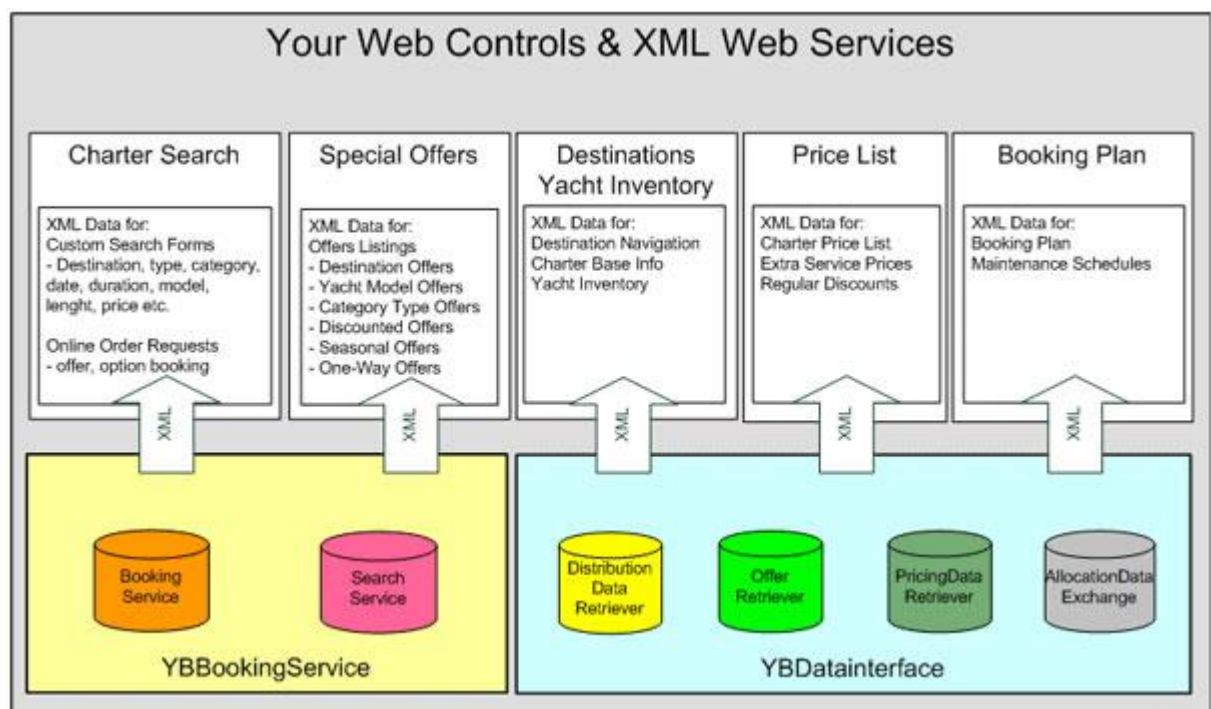
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- *Using Objects within JSP Pages*
- *Expression Language*
- *Deactivating Expression Evaluation*
- *Implicit Objects*
- *Custom Tags*
- *JavaBeans Components*
- *Reusing Content in JSP Pages*

Java Mail API

Annotations

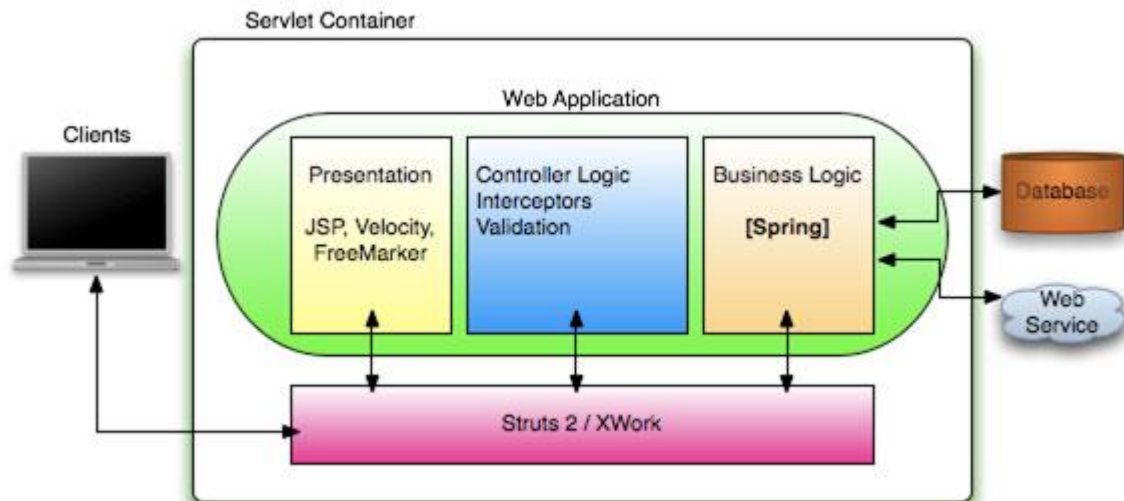
XML and Web Services



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Struts 2.x

- *Introduction to Struts 2.x*
- *MVC and Struts 2 Architecture*
- *Actions, Results & Interceptors*
- *Object Graph Navigation Language (OGNL)*
- *Struts 2 Presentation Tags*
- *Role of ActionInvocation and ActionContext*
- *Manipulating data on ValueStack*
- *Creating Custom Interceptors and Results*
- *Validating Action Properties*
- *Generating Composite Views using Tiles*

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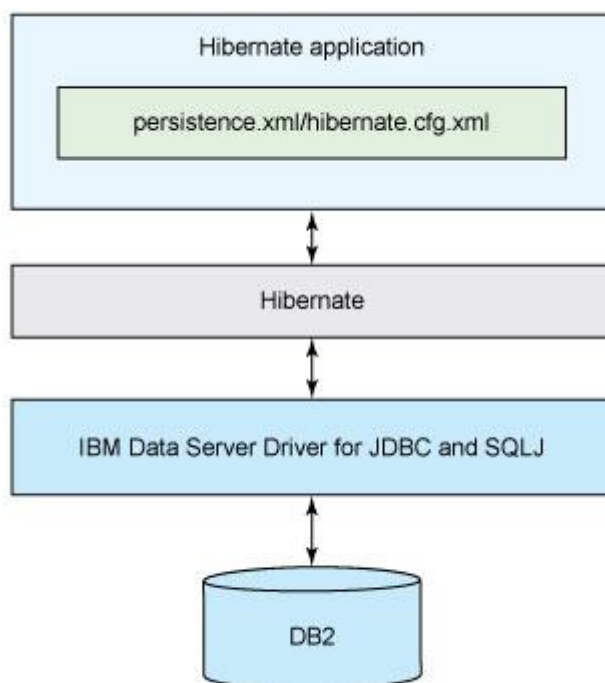


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- *Using Annotations to specify Configuration*

Week7

Hibernate 3.x



- *Introduction to ORM and Hibernate*
- *Hibernate Architecture*
- *Hibernate Configuration*
- *Introduction to Session and SessionFactory*

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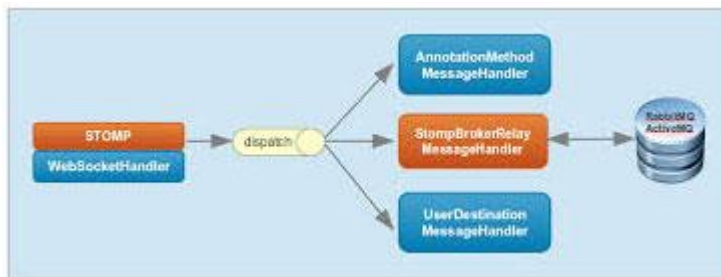
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- *Persisting Objects using Hibernate*
- *Hibernate Query Language*
- *Inheritance Mapping*
- *Bidirectional Association Mapping*
- *Caching Introduction*
- *Implementing Second Level Caching using EHCACHE*
- *Integrating Spring & Hibernate*

Weeks

Spring 3.x



- *Introduction to Spring*
- *Understanding Inversion of Control (IOC) and*
- *Dependency Injection (DI)*
- *Spring Architecture*
- *Implementing IOC in Spring*
- *Understanding Aspect Oriented Programming (AOP)*
- *Implementing AOP in Spring*
- *Introduction to Template Design Pattern*

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- *Simplifying Data access using JDBC Template*
- *Abstracting Data Access Layer using DAO*
- *Introduction to Spring MVC*

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