Our Goal

" Focus on Studying. I know it's hard, but belive me, it's going to be worth it."

Syllabus:

1] CORE JAVA:

- Introduction to Java Platform, Java
- Flow Control,
- Source File Object Oriented Programming
- Class, Objects, Data types Comments,
- Setup
- Instance & Static Variables
- Constructor
- This / Super keyword Method Instance & Static Methods
- Method Overriding
- Method Overloading
- Final Class
- Abstract Class
- Static Block
- Instance Block JVM : Architectures, Class Working Inheritance.
- Interface
- Abstract Class V/S Interface
- Access Specifiers
- Packages
- Garbage Collection
- Exception Handling (Try, catch, Finally, throw & throws)
- Collection (list, set. map, iterator etc.)
- Generics, Enum, Covariant Return Types
- Auto Boxing Annotations .._
- Internationalized, Locate Formatting Text & Dates
- Multi Threading
- JOBC (Statement, Prepared statement, Callable statement)
- Connection Pooling

2] ADVANCE JAVA:

- Web Application and HTTP Basics
- Servlet
- Servlet Model
- Servlet Life Cycle
- Servlet Container Model
- Coordinating Servlet/ information sharing
- Http Servlet Package
- Session Management
- Filters
- Listeners
- Web Application Security
- JSP (Java Server Pages)
- JPS Elements, Direction & Declarations
- Scriptlets

- Expressions
- JPS Action (Use Bean, forward, include)
- Comments
- Implicit Objects
- Expression Language (EL) in JSP
- Model 1 & Model 2 Architectures
- JSTL
- Desing Patten (Singleton, Factory, Decorator etc.)

3]FRAMEWORKS:

- Struts 2.x:- Apache Struts is an elegant, extensible framework for creating enterprise-ready Java web applications. The framework is designed to streamline the full development cycle, from building, to deploying, to maintaining applications over time. Apache Struts was originally known as WebWork 2.

Struts Basics

- ✓ Struts Home
- ✓ Basic MVC Architecture
- ✓ Struts Overview
- ✓ Struts Environment Setup
- ✓ Struts Architecture
- ✓ Struts Examples
- ✓ Struts Configuration
- ✓ Struts Actions
- ✓ Struts Interceptors
- ✓ Struts Result Types
- ✓ Struts Value Stack/OGNL
- ✓ Struts File Uploads
- ✓ Struts Database Access
- ✓ Struts Sending Email
- ✓ Struts Validations
- ✓ Struts Localization
- ✓ Struts Type Conversion
- ✓ Struts Themes/Templates
- ✓ Struts Exception Handling
- ✓ Struts Annotations

- SPRING 4.X :- Spring framework and architecture, spring advantage and features, IOC & Dependency Injection, Spring Layers/ modules, Spring MVC, AOP, ORM, DataAccess, Web module Bean life cycle, application context, bean scope etc.

- Spring IOC
- Spring AOP
- Spring MVC

"The Spring Framework is a Java platform that provides comprehensive infrastructure support for developing Java applications. Spring handles the infrastructure so you can focus on your application.Spring enables you to build applications from "plain old Java objects" (POJOs) and to apply enterprise services non-invasively to POJOs. This capability applies to the Java SE programming model and to full and partial Java EE".

Spring Core Basics

- ✓ Architecture
- ✓ Environment Setup
- ✓ IoC Containers
- ✓ Bean Definition
- ✓ Bean Scopes
- ✓ Bean Life Cycle
- ✓ Bean Post Processors
- ✓ Bean Definition Inheritance
- ✓ Dependency Injection
- ✓ Injecting Inner Beans
- ✓ Injecting Collection
- ✓ Spring Beans Auto-Wiring
- ✓ Annotation Based Configuration
- ✓ Java Based Configuration
- ✓ Event Handling in Spring
- ✓ Custom Events in Spring
- ✓ AOP with Spring Framework
- ✓ Spring JDBC Framework
- ✓ Transaction Management
- ✓ Spring Web MVC Framework
- ✓ Spring Logging with Log4J

- HIBERNATE 5.X :- "Hibernate is a pure Java object-relational mapping (ORM) and persistence framework that allows you to map plain old Java objects to relational database tables. The main goal of hibernate is to relieve the developer from the common data persistence related tasks. It maps the objects in the java with the tables in the database very efficiently and also you can get maximum using its data query and retrieval facilities. Mainly by using Hibernate in your projects you can save incredible time and effort."

Introduction:-

- ✓ ORM (Object Relational Mapping)
- ✓ Hibernate Resources
  - Configuration xml file
  - Mapping xml file
  - Persistent class
  - Client application
- ✓ Hibernate architecture
- ✓ CRUD operations using Session methods
- ✓ Hibernate Query Language (HQL)
- ✓ Native SQL
- ✓ Criteria API
- ✓ Inheritance in Hibernate
- ✓ Caching
- ✓ Connection pool
- ✓ Connecting with Multiple Databases(Oracle, MySQL, HypersonicSQL)
- ✓ Integrating Hibernate with Servlet and Struts
- ✓ Working with Hibernate Annotations

- ORM
- HQL
- Criteria, etc.
- Interceptor,
- Validation, etc.

4]DATA BASE : - Oracle, MYSQL MongoDB

5]WEB / APPLICATION SERVICE :- Tomcat, JBoss, Glass Fish

6]Tools : -

- Eclipse, My Eclipse, NET Beans
- AJAX, Jquery, Maven,
- XML, Java Script & Many More…