

Curriculum for Web Application Development using Java.

- Introduction
 - Java Fundamentals
 - System Class
 - Print Methods
 - String literals
- Variables and Data Types
- Expressions and Assignments
- Compound Assignments
- Inputs (Interactive Programming)
- Type casting
- Classes Introduction
 - Objects and Storage
 - Method Overloading
- Calling Methods, String Methods
- Wrapper Classes, Math Class
- Boolean Types
- Control Structures
 - o If-else
 - While loops
 - o For loops
 - Nested Loops
- Arrays
 - Creation and Access
 - Traversing Arrays
 - Algorithms using Arrays.
 - ArrayLists
 - Algorithm using ArrayLists
 - Searching
 - Selection Sort
 - Insertion Sort
 - o 2D Arrays
 - Creation and Traversing
- Classes In depth
 - o Constructors
 - Accessor Methods/ Scope and Access
 - Mutator Methods



- Static Variables and Methods
- This keyword
- Object Oriented Programming Concepts:
- o Inheritance
- Encapsulation
- o Polymorphism
- Abstraction
- Recursion
 - Recursive Search
 - Recursive Sorting

Grand Finale – Project Work

Project Work is a distinctive endeavor that dissects a real-life software development scenario into simplistic terms, enabling students to grasp the broader perspective. This immersive experience holds tremendous value for aspiring engineers and computer science professionals.

During this program, students will embark on a journey through the Software Development Life Cycle, adopting the Agile Methodology. This comprehensive approach encompasses various stages:

- 1. Introduction to the real-life software development lifecycle, focusing on Agile Methods.
- 2. Students will actively participate in the Software Development Life Cycle, emulating real-life software development practices using the Agile Methodology. This includes:
 - Requirements gathering
 - Design
 - Development and unit testing
 - Implementation
- 3. Each student will receive a project assignment to develop a simple web application utilizing Java. Furthermore, they will be tasked with hosting this web application on the AWS cloud platform.



About us:

With a collective experience of over 30 years in Software Engineering, we are a passionate team of software engineers committed to pioneering innovative solutions that effectively address the challenges faced by our esteemed customers. Our expertise lies in developing highly scalable and cloud-native solutions, enabling our clients to achieve their business objectives swiftly and efficiently.

We provide comprehensive Software Architecture, Design, and Development Consulting services, available in both Fixed Price and Time and Material models. Our team assists customers in designing robust and scalable solutions, leveraging well-established architectural patterns such as Event Driven. Furthermore, we specialize in developing application integration strategies based on the principles of "API first" and Domain Driven Design.

In addition to our technical proficiency, we are deeply enthusiastic about sharing the wealth of knowledge we have acquired over the years with the next generation of computer professionals. Consequently, we frequently organize workshops and seminars, fostering an environment for the exchange of ideas and nurturing young talent.