



# PRECURSOR

INFO SOLUTIONS PVT. LTD.

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## Project Training With Internship Program

DESKTOP

WEB

MOBILE/CLOUD

MACHINE LEARNING

PROJECTS

▶ CORE JAVA

▶ ADVANCE JAVA

▶ PYTHON

▶ MERN

▶ FRAMEWORKS

▶ ANDROID

▶ PHP

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## Core Java

Features of Java  
OOPs Concept with real life examples  
JShell Tool  
Packages & interfaces  
Exception Handling  
Streaming, Multithreading  
Annotations  
JDBC, GUI Designing  
Event handling  
Collection Framework and Generics  
Eclipse IDE  
**PROJECT**



## Advance Java

Introduction to Web technology  
HTML, CSS, JavaScript  
jQuery  
Bootstrap Framework  
Material Design  
Servlet  
JDBC  
JSP  
AJAX  
Eclipse IDE  
Deployment of web application on Web Server  
**PROJECT**

## Android

Introduction to Android studio  
Android Architecture  
Various XML resource files  
Layouts and Widgets  
Activity, Fragment  
Intent and Intent Filter  
Notifications  
Graphics, Animation and Media  
Data Storage



Content Provider  
Broadcast Receiver  
Google Map and Locations  
Web Services and JSON  
Material Design  
Third Party Libraries  
Google Firebase  
Overview of Kotlin  
**PROJECT**

## Frameworks

### STRUTS

Introduction to Design Pattern  
MVC model  
Core Components  
Architecture, Configuration  
Actions, Tags  
Database Connection  
Validation  
Localization, Struts Tiles  
Ajax framework  
Integration with Hibernate

**PROJECT**



### SPRING

Spring framework  
Spring Modules  
AOP Concepts  
Dependency Injection  
JDBC Templates  
ORM Integration  
Web MVC  
Annotations

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### HIBERNATE

ORM framework and Architecture  
Configuration and Mapping file  
Session and Session Factory  
Mapping types  
Inheritance  
Annotation  
Hibernate Query Language (HQL)  
Caching and Batch Processing  
Integration with Struts



# PYTHON

Introduction to Python

Basic Syntax

Sequences, Numbers, Strings

List, Tuples, Dictionary, Sets

User defined and built-In Functions



Regular Expression, Packages

Modules, Exception Handling

Object Oriented Concepts

Database Connectivity with SQLite database

Atom & PyCharm IDE

## Python with Machine Learning

Introduction to Machine Learning

Machine Learning Algorithms

Libraries like Panda, Numpy, Scipy etc

File operations, Anaconda IDE

Python IDLE, Jupyter Notebook

GUI Programming and Event Handling

Introduction to Django Framework

**PROJECT**

## Python with Django Framework

Web designing Techniques

Introduction to MVC and MVT Model

Django Web Framework Architecture

Templates and Forms

Models and Dynamic WebPages

jQuery and AJAX Integration

**PROJECT**

# PHP

Introduction to Web technology

Wamp Server and Eclipse IDE

HTML

Java Script

CSS

jQuery

Bootstrap Framework, Material Design

Basic programming constructs



Object oriented concepts

Form Processing

State Management

Database connectivity

AJAX

WordPress Tool

Deployment of web application

**PROJECT**

## MERN

### Node.js & Express.js

Introduction and Features  
Synchronous & Asynchronous programming  
Call Backs and Event Loop  
Node Package Manager  
Built-In modules  
Express Framework  
Building API using Express  
Introduction to Postman  
Testing API using Postman  
Integration with MongoDB  
Integration with React



### React.js

Introduction to web development  
Client and Server side Technologies  
SPA and MPA  
HTML, CSS, Bootstrap, JSON  
JavaScript based on ES6  
Introduction to React.js  
Virtual DOM, JSX  
Class and Functional components  
Styling  
React Routing  
React Hooks  
Axios and JSON-Server



### MongoDB

Introduction  
SQL and NoSQL  
MongoDB on Cloud  
Schema design and Data modeling  
Crud Operations  
Export and Import



**Full Stack web Project using MERN Technology**

