



VENDORS NAME: 3 Edge Pvt Ltd

CLASS: II CSE (3<sup>rd</sup> SEM)

SUBJECT: Programming in JAVA

S.no	Module	Topics to be Covered
1	Programming in Java	Introduction to Java Programming,JVM,JDK, JRE,JIT , Hello World, Datatypes and Identifiers
2		Operators, Control Statements - Decision Making
3		Control Statements - Looping & Jump statements and Arrays
4		Searching & Sorting Algorithms using Array
5		<b>Online &amp; Programming Assessment 1 and OOPS</b>
6		Classes & Objects, Constructor and Command line Arguments
7		Access Specifiers, Inheritance, and Packages
8		Abstract class & Interface, Modifiers(static,final), and 'this' keyword
9		Overloading and Overriding
10		Exception Handling
11		String Handling (String, String Buffer and String Builder)
12		<b>Recap and Online &amp; Programming Assessment 2</b>



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CLASS: III CSE (5<sup>TH</sup> Semester)

**SUBJECT: MYSQL, PYTHON, LINUX, APACHE**

S.No	Module	Topics to be Covered
1	Linux	Introduction to Ubuntu Linux, Login in Linux (GUI & Console)
2		Directory Structure of Linux Listing Files & Directories (ls)
3		Creating, Moving , Deleting Files , Directories, Searching for Files (locate & find) and Shells (Working effectively in the Command Line)
4	Python	Introduction to python,python features,variables and Python Input/Output
5		Operators and Control Statements:Decision statements.
6		Control Statements:Looping,Jumping
7		List:Creation of list,List operators and Usage,methods and functions.
8		List:1D list vs 2D List with demo
9		<b>Online and Programming Assessment-1</b>
10		List:Stack and Queue
11		List:Searching and Sorting
12		String handling with relevant method and functions,Dictionary
13		Dictionary and tuples with their method and function
14		Set,File Handling,Exception handling
15	Mysql	Introduction about DBMS,Mysql and Sql Statement(DDL,DML,TCL,DCL),
16		Selection vs projection using where clause,SQL Operators(IN,NOT IN,BETWEEN,ISNULL,Like etc).
17		Group Function(Avg,Sum,etc) and SubQuery(Single and Multiple Row)
18		Joining(Natural join,Inner,outer,self etc)

19		Constraints(Primary key and foreign key,unique etc.)
20		Database API(Insert,delete,update etc) Using Python
21		<b>Online and Programming Assessment-2</b>
22	<b>Apache</b>	Introduction to Apache webserver and usage.
23		Creatin simple web application using Flask or Django
24		Deploying application in Webserver



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**CLASS:** IV CSE (7<sup>TH</sup> Semester)

**SUBJECT: COMPANY SPECIFIC TRAINING AND PROBLEM SOLVING USING HACKERRANK AND CODINGBAT**

S.no	Module	Topics to be Covered
1	CodingBat	Problem solving Introduction and Warmup
2		Problem Solving using Control Statements & Operators - Easy
3		Problem Solving using Control Statements & Operators - Medium
4		Problem Solving using Array - Easy
5		Problem Solving using Array - Medium
6		Problem Solving using Array - Hard
7		Problem Solving using String - Easy
8		Problem Solving using String - Medium
9		Problem Solving using String - Hard
10		Problem Solving using Recursion - Easy
11		Problem Solving using Recursion - Hard
12		Problem Solving using Map
13	HackerRank	Problem Solving - Warmup
14		Problem Solving - String
15		Problem Solving - String
16		Problem Solving - 1D and 2D Array
17		Problem Solving - Sorting
18		Problem Solving - Searching
19		Problem Solving - Stack and Queue
20		Problem Solving - Dynamic Programming
21		Problem Solving - Bit Manipulation
22		Problem Solving - Game Theory
23		Problem Solving - Recursion
24		Problem Solving - Debugging



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CLASS: II CSE (4<sup>th</sup> SEM)

SUBJECT: PROGRAMMING IN SERVLET, JSP, MYSQL

S.No	Module	Topics to be Covered
1	Servlet	Introduction to Advanced Java,Internet Technologies.
2		Servlet: Introduction about servlet,Servlet API, Servlet Life cycles
3		HttpServlet vs Generic Servlet,servlet request interface
4		Servlet Demo
5		ServletConfig AND SevletContex with demo
		Servlet: Request Dispatcher vs Sendredirect
6		<b>Online &amp; Programming Assessment 1</b>
7		Servlet: Session Management, Cookie, Session,
8		Session Management, URI rewiting, Hidden form Field
9		Filter, Filter Lifecycle and Filter authentication & Demo
10	Jsp: Introduction, Jsp Life Cycle, Scriptlet tag and Demo	
11	JSP	Implicit Objects and Demo
		<b>Online &amp; Programming Assessment 2</b>
13		Directives (Page Directives, Include Directives)-Demo
14		Jsp: Action Elements (Include, Forward, Usebean, Set and get properties)
15		Jsp: Action Elements(Include, Forward, Usebean, Set and get properties)
16	Mysql	Introduction about DBMS,Mysql and Sql Statement(DDL),
17		Sql Statement(DML,TCL,DQL),Selection vs projection using where clause
		SQL Operators(IN,NOT IN,BETWEEN,ISNULL,Like etc).

18		<b>Online &amp; Programming Assessment 3</b>
19		Group Function(Avg,Sum,etc) and SubQuery(Single and Multiple Row)
20		Joining(Natural join,Inner,outer,self etc)
21	<b>Project</b>	MVC Architecture with CRUD Demo(Insertion & Retrieve) by utilizing JSP & Servlet
22		MVC Architecture with CRUD Demo(Update,Delete) by utilizing JSP & Servlet
23		<b>Revision and Project Review</b>
24		<b>Online &amp; Programming Assessment 4</b>



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CLASS: III CSE (6<sup>TH</sup> Semester)

**SUBJECT: PYTHON, FLASK, BOOTSTRAP and DIANGO**

SL.No	Module	Topics to be Covered
1	PYTHON & FLASK	Recap Python(Operators, Conditional Statements, Looping etc..)
2		Introduction about Framework and Flask
3		Flask Installations, Concept of Routing and Url Rewriting
4		Recap MYSQL(DDL and DML), Introduction about Webservices(Restful)
5		Postman Tool, HTTP Methods, Rest Api Create, Retrive
6		Rest Api(Update and Delete)
		<b>Online &amp; programming Assessment -1</b>
7	BOOTSTRAP	Installation of Bootstrap and Its Classes, Layout Designing
8		Table Designing, Form Designing
9		Introduction to MVC
10	DIANGO	Introduction to Django
11		Features, MVT architecture
		Django Installation
12		<b>Online &amp; programming Assessment -1</b>
13		Project App Creations
14		Url Configurations
15		Simple Demo program
16		ORM and Model creation
17		Admin UI Designing
		Form Creations
18	<b>Online &amp; programming Assessment -3</b>	
19	Form validations	
20	Project	Crud Operation:Django+Mysql (Insert & Retrive )
21		Crud Operation:Django+Mysql (Retrive, Update,Delete )
22		Session Management(Sessions and Cookies)

23		<b>Online &amp; programming Assessment -4</b>
		<b>Revision</b>
24		<b>Project Review</b>