

Singapore Batch Agenda					
#	Week	Date	Day	Module	Topics
1	Week 1	01 February 2021	Monday	SDLC	<ul style="list-style-type: none"> * Introduction to SDLC * 7 Phases of SDLC * Models of SDLC
2		02 February 2021	Tuesday	Agile	<ul style="list-style-type: none"> * Introduction to Agile Methodology * Introduction to Agile Software Development * Agile Model vs. Waterfall Model * Agile Manifesto * 12 Principles of Agile Software * Scrum * Benefits of Scrum * Process Flow of Scrum Methodology * Scrum Framework * Scrum Roles
				Version Control System	<ul style="list-style-type: none"> * Introduction to Version Control * Benefits of Version Control System * Introduction to Git * Install Git * Setting up a Repository * Git Commands
3		03 February 2021	Wednesday	Cloud Computing	<ul style="list-style-type: none"> * Overview of Cloud Computing * Benefits of Cloud Computing * Type of Clouds * Cloud Computing Services * Cloud Computing Architecture * Advantages & Disadvantages of Cloud Computing * Trends in Cloud Computing
4		04 February 2021	Thursday	Core Java	<ul style="list-style-type: none"> * Overview of Java * Features of Java * Installation & Configuration of Java * Overview of JDK, JVM, JRE * Data Types * Variables * Identifiers * Arithmetic Operators * Compound Assignment Operators * Type Casting * Relational Operators * Conditional Statements [if, if..else, Nested if..else] * Logical Operators * Using switch..case
5		05 February 2021	Friday		<ul style="list-style-type: none"> * Ternary Operator * Loops [while, do..while, for] * Nested Loops * Demonstration of Java's API * Taking User Input using Scanner Class * Random Class * Overview of Arrays * Declaring Arrays * Initializing Arrays * Using for-Each Loop * Numeric Array * Character Array * Sorting Array * Two-Dimensional Array [Matrix] * Matrix Computing * Jagged Array

6	Week 2	08 February 2021	Monday	Core Java	<ul style="list-style-type: none">* Overview of OOP* Classes & Objects* Encapsulation* Instantiation* Members & Methods* Access Specifiers* Constructors* Using "this" Keyword* Constructor Overloading* Object Reference Variables* Nested & Inner Classes* Static Blocks
7		09 February 2021	Tuesday		<ul style="list-style-type: none">* Using break & continue* Method Overloading* String Class* String Methods* Command Line Arguments* Variable Length Arguments* Autoboxing & Unboxing* Case Study of Object Oriented Program* Real Time Example of OOP* Best Practices of OOP with Examples
8		10 February 2021	Wednesday		<ul style="list-style-type: none">* Aggregation* Inheritance* Polymorphism* Constructor Overriding* Using "super" Keyword* Method Overriding* Using "instanceof" Operator* Multi-level Inheritance* Garbage Collection
CHINESE NEW YEAR BREAK					
9	Week 3	16 February 2021	Tuesday	Core Java	<ul style="list-style-type: none">* Interface* Defining an Interface* Implementing Interfaces* Nested Interfaces* Interface Members* Extended Interfaces* Default Interface Methods* Abstract Classes* Abstract Methods* Multiple Inheritance Using Interfaces & Abstract Classes* Default Abstract Methods* Using "final" Keyword* Garbage Collection* Enumeration* Memory Management
10		17 February 2021	Wednesday		<ul style="list-style-type: none">* Packages* Importing Packages* Sub Package* Using "static import"* Accessing Members & Methods in Packages* Using "static" Members & Methods* Runtime Polymorphism* Using Service Interface for CRUD Operations* Implementing Service Interface

11		18 February 2021	Thursday		<ul style="list-style-type: none"> * Overview of Exceptions * Uncaught Exceptions * Using "try" & "catch" Blocks * Using "finally" Block * Multiple "catch" Exceptions * Nested Exceptions * User Defined Exceptions * Using "throw" Keyword * Using "throws" Keyword * Using "try" with Resource
12		19 February 2021	Friday		<ul style="list-style-type: none"> * Demonstration on Layered Architecture * Real-time Example using Bean, Service Methods & Exceptions * Wrapper Classes
13	Week 4	22 February 2021	Monday	Core Java	* Refreshing Java from Scratch to make their Java Foundation Strong
14		23 February 2021	Tuesday		* Java Programming Language Constructs
15		24 February 2021	Wednesday		<ul style="list-style-type: none"> * Java Streams * Console Input * Reading Characters / Bytes * Reading Strings * Read from File * Write to File * Copy a File
16		25 February 2021	Thursday		<ul style="list-style-type: none"> * Serialization * Writing Objects to File * Reading Objects from File * Generics * Regular Expressions / Pattern Matching * Formatting Number, Date, Time & Currency
17		26 February 2021	Friday		<ul style="list-style-type: none"> * Overview of Multithreaded Programming * The Main Thread * Creating a Thread by Implementing Runnable Interface * Thread Priorities * Creating a Thread by Extending Thread Class * Synchronizing a Thread * Interthread Communication * Suspending, Resuming & Terminating a Thread * Thread Deadlock
18	Week 5	01 March 2021	Monday	Core Java	<ul style="list-style-type: none"> * Arrays Class Methods * Introduction to Collection Framework * Collection Interfaces * Collection Classes * Storing Objects in Collections * List Interfaces & Classes * Set Interfaces & Classes * Map Interface & Classes * Table Interface & Classes * Collection Classes * Properties Class * Comparable Classes * Comparator Classes
19		02 March 2021	Tuesday	Java 8	<ul style="list-style-type: none"> * Overview of Lambda * Lambda Expression Fundamentals * Functional Interfaces * Lambda Expression Blocks * Generic Functional Interfaces * Passing Lambda Expressions as Arguments * Lambda Expressions in Exception Handling * Pre-Defined Functional Interfaces * Method References * Constructor References
20		03 March 2021	Wednesday	Database	* Database SQL Commands
21		04 March 2021	Thursday		* Basic DDL, DML, DCL, TCL Commands

22		05 March 2021	Friday	JDBC	<ul style="list-style-type: none"> * Overview of JDBC * java.sql Package * Database Connectivity Steps - Interfaces & Classes Used * CRUD Operations Using JDBC
23	Week 6	08 March 2021	Monday	JDBC	<ul style="list-style-type: none"> * Real-time Example on Application Development using JDBC * Java App using MySQL / Oracle Database
24		09 March 2021	Tuesday	Spring Framework	<ul style="list-style-type: none"> * Introduction to Spring Framework * Features of Spring * Benefits of Spring * Spring Architecture * Spring Modules * Environment Setup * Spring Maven Project * Spring Eclipse Project * IoC - Inversion of Control Container * XML Based Configuration * Annotation Based Configuration * Java Configurations * Spring Bean * Spring Bean LifeCycle * Spring Bean Scope
25		10 March 2021	Wednesday		<ul style="list-style-type: none"> * DI - Dependency Injection * Constructor Based Dependency * Setter Based Dependency * Spring Auto-wiring - Field, Method, Constructor * Spring @Qualifier Annotation * Spring @Bean Annotation * Spring Read Property * Spring Field Injection * Spring Method Injection * Spring Expression Language
26		11 March 2021	Thursday		<ul style="list-style-type: none"> * Introduction on Spring MVC * Spring MVC Architecture * Spring MVC View * ViewResolver Implementations * Configure Views Using - XML Tags, Java Code, Properties File * Spring MVC Application
27		12 March 2021	Friday	Spring MVC	<ul style="list-style-type: none"> * Spring MVC Handling Form Data * Adding Data to Spring Model * @RequestParam Annotation & Attributes * @ModelAttribute Annotation - Method Level & Method Argument
28	Week 7	15 March 2021	Monday	Spring MVC	<ul style="list-style-type: none"> * Spring MVC Form Validation * Hibernate Validator Annotations * Spring MVC Form Tags * Spring MVC Redirect
29		16 March 2021	Tuesday		<ul style="list-style-type: none"> * Spring MVC with JPA * Spring MVC JPA CRUD Application
30		17 March 2021	Wednesday	Spring REST	<ul style="list-style-type: none"> * Introduction to REST * Postman * JAX-RS Implementation * REST CRUD Application
31		18 March 2021	Thursday	Spring REST	<ul style="list-style-type: none"> * Spring Rest Controller * Spring REST Application * Spring REST Exception Handling
32		19 March 2021	Friday	Spring Boot	<ul style="list-style-type: none"> * Introduction to Spring Boot * Environment Setup * Spring Boot Auto-Configuration * Launching Spring Boot Application * Running Spring Boot Application on Tomcat Server * Creating a REST Application with Spring Boot