New Vistas Java Track 12 Week Syllabus

Course Length: **12 Weeks – 480 learning hrs – 8 hrs per day – 5 days a week**

This syllabus serves as a guideline to your training program. Your instructors may adjust the schedule as required to meet training needs.

1   Support Information

Support Person	Email	Support Role
Tom Aronson	thomas.aronson@hcl.com	Technical Instructor/Coach
Aaron Laatsch	aaron.laatsch@hcl.com	Technical Instructor/Coach
Saran Padmanabhan	saravanan.padma@hcl.com	Technical Instructor/Coach
Krishna Prasad	krishnas.prasad@hcl.com	Technical Mentor
Volker Timm	volker.timm@hcl.com	Engagement Manager

Daily Sessions

Type of Session	Time	Location	Purpose
Instructor Session	10 am – 1 pm EST	US NV Emp Java 04.15.21	Daily Instruction
Engagement Session	1 – 1:30 pm EST	US NV Emp Java 04.15.21	Stand-up Meeting with Engagement Manager
Coaching Session	2 – 5 pm EST	US NV Emp Java 04.15.21	Coaching Session with SME Coach (Support for concept and assignment questions/guidance)
Mentor Session	5 - 6 pm EST	US NV Emp Java 04.15.21	Meeting with Mentor for Doubt Clearance and Program Progress

For any additional technical support, you can write to Java Academy Helpdesk (JavaAcademy_Hdesk@hcl.com)

2 COURSE GRADING

Focus	Frequency or Number	Percentage
Practice Exercises	Daily and Weekly	Not calculated in overall grade
Section-End Assessments	6	50%
Phase-End Assessments	2	50%
Capstone Presentation	1	Pass/Fail

Learners must pass the phase-end assessments AND the capstone presentation to pass the training program. Retakes on any assessments may be granted at the instructor's discretion. Minimum passing score on all assessments is 50%.

3 ASSESSMENT SCHEDULE

Training Day	Subject
Day 17	Section-End Assessment 1 (Core Java 8-1 and 8-2)
Day 22	Section-End Assessment 2 (SQL & JDBC, Servlets & JSP)
Day 30	Section-End Assessment 3 **and** Phase-End Assessment 1 (Mode 1) (Section 1: Spring & JPA/Hibernate, Section 2: Cumulative)
Day 38	Section-End Assessment 4 (SpringBoot & Design Patterns)
Day 43	Section-End Assessment 5 (HTML5, CSS3.0.BootStrap, JavaScript, JQuery)
Day 59	Capstone Project Presentation
Day 60	Section-End Assessment 6 **and** Phase-End Assessment 2 (Mode 2) (Section 1: Agile and DevOps, Section 2: Cumulative)

4 LEARNING TOPICS

Phase 1 – Mode 1 Technologies

Day	Content	Instructor
1	**HackerRank Pre-Assessment Due** **Introduction to Git**	Aaron Laatsch
2	**Introduction to Maven**	Aaron Laatsch
3	**Linux 101:** Introduction to Linux Sed Basic Editors and Commands Regex, Grep	Tom Aronson
4	**Linux 101:** Basic Command Permissions Basic Cloud Commands AWK Basic Shell Scripting	Tom Aronson
5	**Core Java 8-1:** Introduction to Java	Aaron Laatsch
6	**Core Java 8-1:** OOP, Classes and Methods	Aaron Laatsch
7	**Core Java 8-1:** Inheritance	Aaron Laatsch
8	**Core Java 8-1:** java.lang Package	Aaron Laatsch
9	**Core Java 8-1:** Algorithms and Data Structures	Aaron Laatsch
10	**Core Java 8-1:** Collections and Generics (java.util.*)	Aaron Laatsch
12	**Core Java 8-2:** Inner Classes	Tom Aronson
13	**Core Java 8-2:** Exception Handling	Tom Aronson
14	**Core Java 8-2:** Threads	Tom Aronson
15	**Core Java 8-2:** Input/Output	Tom Aronson
16	**Core Java 8-2:** New Features in Java 8	Tom Aronson
17	**Core Java 8-2:** Coding Standards **Section-End Assessment 1**	Tom Aronson
18	**SQL:** RDBMS Introduction	Tom Aronson

	SQL Statements – DDL, DML, DQL, TCL SQL Operators, Datatypes, Constraints, Functions	
19	**SQL:** Subqueries Join	Tom Aronson
20	**JDBC:** Introduction to JDBC Configuring the JDBC Driver JDBC API CRUD Operations	Saran Padmanabhan
21	**Servlets & JSP:** Tomcat Servlet Basics	Saran Padmanabhan
22	**Servlets & JSP:** Servlets JSP Basics **Section-End Assessment 2**	Saran Padmanabhan
23	**Spring Core & Spring MVC:** Introduction to Spring & Spring Architecture Spring Core, Spring Context Modules	Saran Padmanabhan
24	**Spring Core & Spring MVC:** Dependency Injection Spring Bean Scopes, Spring Bean Lifecycle	Aaron Laatsch
25	**Spring Core & Spring MVC:** Introduction to Spring MVC, Spring MVC Architecture Validation, Spring Exception Handling JPA Integration with Spring	Aaron Laatsch
26	**Spring Core & Spring MVC:** Unit Testing with Junit & Mockito	Aaron Laatsch
27	**JPA/Hibernate:** Introduction to JPA/Hibernate	Saran Padmanabhan
28	**JPA/Hibernate:** Hibernate Queries & Associations	Saran Padmanabhan
29	Review Session	
30	**Section-End Assessment 3 and Phase-End Assessment 1** (Section 1: Spring, Section 2: Cumulative)	

Phase 2 – Mode 2 Technologies

Day	Content	Instructor
31	**SpringBoot:** SpringBoot Data JPA	Aaron Laatsch
32	**SpringBoot:** SpringBoot REST	Aaron Laatsch
33	**SpringBoot:** SpringBoot Security Basics SpringBoot Security Integration with JWT	Saran Padmanabhan
34	**SpringBoot:** Swagger – REST Endpoint Documentation PostMan Testing SpringBoot RESTful Services	Aaron Laatsch
35	**SpringBoot:** Microservices Overview	Aaron Laatsch
36	**Design Patterns:** SOLID Principles	Tom Aronson
37	**Design Patterns:** Creational Patterns Structural Patterns	Tom Aronson
38	**Design Patterns:** Behavioral Patterns MVC Patterns **Section-End Assessment 4**	Tom Aronson
39	**HTML5:** Predefined Tags Forms & Tables Components	Saran Padmanabhan
40	**CSS3.0/BootStrap:** Introduction to CSS3.0 BootStrap Basics	Saran Padmanabhan
41	**JavaScript:** Introduction to JavaScript DOM Functions Events	Saran Padmanabhan
42	**JQuery:** Select by Element Type Select by ID Select by Class	Saran Padmanabhan
43	**JQuery:** Select by DOM Location Select Descendant Elements Select by Attribute	Saran Padmanabhan

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	Section-End Assessment 5		
44	**Azure DevOps:** Agile Workshop	**Guest Instructor:** Suchitra Bhat	
45	**Azure DevOps:** Agile Workshop	**Guest Instructor:** Suchitra Bhat	
46	**Azure DevOps:** Agile Workshop	**Guest Instructor:** Suchitra Bhat	
47	**Azure DevOps:** DevOps Workshop	**Guest Instructor:** Senthil Alagarsamy	
48	**Azure DevOps:** DevOps Workshop	**Guest Instructor:** Senthil Alagarsamy	
49	**Azure DevOps:** DevOps Workshop	**Guest Instructor:** Senthil Alagarsamy	
50	Capstone Project		
51	Capstone Project		
52	Capstone Project		
53	Capstone Project		
54	Capstone Project		
55	Capstone Project		
56	Capstone Project		
57	Capstone Project		
58	Capstone Project		
59	**Capstone Presentation**		
60	**Section-End Assessment 6 and Phase-End Assessment 2** (Section 1: Agile & DevOps, Section 2: Cumulative)		