



**Java Full Stack Self Paced Online Learning**

**17 courses and**

**4 years validity**

**Detailed Course Content**

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**Course 1: Core Java Basics**

1. JDK Setup
2. First Program
3. Development structure
4. JDK 15 and Eclipse Setup
5. Programming elements
6. Printing in Command prompt
7. Local variables
8. Unary Operators
9. Command line arguments
10. if block
11. nested if blocks
12. if blocks with unary operators
13. else block
14. if-else blocks inside if block
15. if-else blocks inside else block
16. if-else blocks with unary operators
17. ternary operator

- 18.switch-cases
- 19.for-loop
- 20.break and continue
- 21.nesting of loops
- 22.labeled loops
- 23.for-each loop
- 24.while loop
- 25.do-while
- 26.Methods
- 27.attributes
- 28.SIB
- 29.IFR and Multiple classes
- 30.Object and reference variable
- 31.this key word
- 32.constructors
- 33.constructor overloading and this()
- 34.IIB
- 35.objects count
- 36.Encapsulation
- 37.Inheritance
- 38.super() calling statement
- 39.packages
- 40.access levels
- 41.abstrcat classes
- 42.interfaces
- 43.method overloading
- 44.method overriding
- 45.auto widening
- 46.explicit narrowing
- 47.auto upcasting
- 48.explicit down casting
- 49.achieving polymorphism
- 50.final key word

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- 51.classpath
- 52.Javadoc, javap and jar commands
- 53.Scanner class
- 54.Eclipse

**Course2:   Core Java Advanced**

- 55.Wrapper classes basics
- 56.auto boxing and auto un boxing
- 57.why do we require Exception Handling
- 58.try-catch
- 59.try-catches
- 60.try-catch-finally
- 61.exceptional conditions of finally
- 62.return statement
- 63.Errors and Exceptions
- 64.Checked and Unchecked
- 65 throws
- 66.throw
- 67.assertions
- 68.toString
- 69.equals
- 70.hashCode
- 71.Garbage Collection and clone
- 72.reflection api
- 73.basics
- 74.advanced
- 75.annotations
- 76.static imports
- 77.why do we required an inner classes
- 78.non static, staic and local inner classes
- 79.anaymous inner class
- 80.lambda expressions

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- 81.basics
- 82.synchronization
- 83.thread life cycle
- 84.accessories
- 85.basics and important methods
- 86.StringBuffer
- 87.Formatters
- 88.Regular expressions
- 89.DateFormaters and NumberFormatters
- 90.arrays
- 91.introduction
- 92.basic operations
- 93.different collections
- 94.list
- 95.queues
- 96.avoiding duplicates (set)
- 97.maps
- 98.iterators
- 99.sorting
- 100.     TreeSet and TreeMap
- 101.     sorting map based on values
- 102.     modifying collections classes as synchronized
- 103.     concurrent package
- 104.     accessories
- 105.     basics
- 106.     advanced
- 107.     basics
- 108.     readers and writers
- 109.     streams
- 110.     serialization
- 111.     adv serialization and externalization
- 112.     PrintStream
- 113.     forEach() method in Iterable interface.

- 114. default and static methods in Interfaces.
- 115. Functional Interfaces and Lambda Expressions.
- 116. Java Stream API for Bulk Data Operations on Collections.
- 117. Java Time API.
- 118. Collection API improvements.
- 119. Concurrency API improvements.
- 120. Java IO improvements.

**Course3: Logical Coding**

- 121. Display patterns set1
- 122. Display patterns set2
- 123. Display patterns set3
- 124. Display patterns set4
- 125. Display patterns set5
- 126. Number system set1
- 127. Number system set2
- 128. Number system set3
- 129. Number system set4
- 130. Number system set5
- 131. Arrays set1
- 132. Arrays set2
- 133. Arrays set3
- 134. Arrays set4
- 135. Arrays set5
- 136. Strings set1
- 137. Strings set2
- 138. Strings set3
- 139. Strings set4
- 140. Strings set5
- 141. Strings set6
- 142. Strings set7
- 143. Strings set8

- 144. Strings set9
- 145. Strings set10
- 146. Strings set11
- 147. Strings set12
- 148. Strings set13
- 149. Strings set14
- 150. Strings set15
- 151. Set1
- 152. Set2
- 153. Set3
- 154. Set4
- 155. Set5

**Course4: Data Structures**

- 156. Data Structures set1
- 157. Data Structures set2
- 158. Data Structures set3
- 159. Data Structures set4
- 160. Data Structures set5
- 161. Data Structures set6
- 162. Data Structures set7
- 163. Data Structures set8
- 164. Data Structures set9
- 165. Data Structures set10
- 166. Data Structures set11
- 167. Data Structures set12
- 168. Data Structures set13
- 169. Data Structures set14
- 170. Data Structures set15

**Course5: Algorithms**

- 171. recursive set1
- 172. recursive set2
- 173. recursive set3
- 174. recursive set4
- 175. recursive set5
- 176. recursive set6
- 177. recursive set7
- 178. recursive set8
- 179. sorting algo set1
- 180. sorting algo set2
- 181. sorting algo set3
- 182. sorting algo set4
- 183. sorting algo set5
- 184. sorting algo set6
- 185. sorting algo set7
- 186. sorting algo set8
- 187. sorting algo set9
- 188. sorting algo set9
- 189. sorting algo set10
- 190. search algo set1
- 191. search algo set2
- 192. search algo set3
- 193. search algo set4
- 194. search algo set5
- 195. search algo set6
- 196. search algo set7
- 197. search algo set8

- 198. Oracle 11g Installation
- 199. SQL Developer installation
- 200. Oracle 11g un installation
- 201. DDL and DML
- 202. DQL
- 203. NOT NULL, UNIQUE AND PRIMARY
- 204. FOREIGN KEY
- 205. ONE-TO-ONE
- 206. ONE-TO-MANY
- 207. MANY-TO-MANY
- 208. DATE AND TIMESTAMP
- 209. DESIGNING EMPLOYEE DATABASE
- 210. 1NF, 2NF and 3NF
- 211. Designing Car database

**Course7: JDBC**

- 212. Setup
- 213. First Program
- 214. Various ways of insert
- 215. Fetching
- 216. try, catch and finally
- 217. External properties file
- 218. Util dev and Tx management
- 219. Prepared Statement
- 220. Callable Statement
- 221. Eclipse usage, Scrollable and Updatable
- 222. batch updates
- 223. BLOB datatype
- 224. Metadatas
- 225. Reading DB keys
- 226. savepoint
- 227. rowid



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- 228. POI setup
- 229. Storing masterdata in db
- 230. CRUD operations

**Course8: Servlets**

- 231. Setup
- 232. First Servlet
- 233. Input to Servlet
- 234. Client side dev
- 235. Backend Dev
- 236. war dev
- 237. With eclipse
- 238. Again backend dev
- 239. Welcome file list
- 240. `getParameter()`
- 241. Form Data
- 242. constants
- 243. life cycle
- 244. architecture
- 245. `doGet` and `doPost`
- 246. init methods
- 247. `RequestDispatcher`
- 248. `sendRedirect`
- 249. why session tracking
- 250. hidden form fields
- 251. url rewriting
- 252. cookies
- 253. `HttpSession`
- 254. Filter basics
- 255. dispatcher types
- 256. Listeners → diff containers
- 257. diff listeners

- 258. Headers
- 259. Wrappers

**Course9: JSP**

- 260. JSP Scripting Elements
- 261. Using Java code inside JSP
- 262. JSP implicit objects
- 263. page directive
- 264. include directive and JSP actions
- 265. JSP useBean
- 266. JSP EL

**Course10: Java Script:**

- 267. basics
- 268. output
- 269. input
- 270. events
- 271. execution
- 272. default
- 273. text, password and textarea
- 274. radio
- 275. checkbox
- 276. select
- 277. multi select
- 278. p, div and span
- 279. swap
- 280. hidden and show
- 281. change color
- 282. single field
- 283. multiple fields
- 284. with fields

- 285. with functions
- 286. with nested
- 287. basics
- 288. sort
- 289. array with objects
- 290. select all
- 291. reverse select all
- 292. dynamic population
- 293. transfer options
- 294. string functions
- 295. trim
- 296. email validation
- 297. multi dimensional array
- 298. sorting records based on column
- 299. sorting options of drop down

**Course11: Angular**

- 300. Installations
- 301. Un Installations
- 302. Creating a project and understanding default code
- 303. Creating a component
- 304. Creating a component with different options
- 305. Creating a component without ng command
- 306. typescript data types and fields declaration
- 307. typescript methods declaration
- 308. typescript methods body development
- 309. access specifies and constructor
- 310. bindings
- 311. directives
- 312. template variable
- 313. template driven forms
- 314. reactive forms

- 315. http client
- 316. routing
- 317. modular development
- 318. typescript compiler
- 319. type assertion
- 320. arrow functions
- 321. directives
- 322. http with template variables
- 323. one-to-one mapping
- 324. one-to-many create and read-all
- 325. one-to-many read, update and delete
- 326. managing checkbox
- 327. many-to-many CRUD

**Course12: Spring Boot**

- 328. Softwares Setup (JDK15, Winrar, editplus and Eclipse)
- 329. SpringBoot first app
- 330. SpringBoot 2nd app
- 331. Spring Boot Auto Configuration
- 332. Spring Boot Dev Tools
- 333. Spring Boot Command Line Arguments
- 334. Spring Boot Exception handling
- 335. Spring Boot JAR Development
- 336. Spring Boot WAR Development

**Course13: Rest Webservices**

- 337. Softwares Setup (JDK15, Winrar, editplus and Eclipse)
- 338. SpringBoot First Application
- 339. Rest Webservices return types
- 340. Rest Webservices Input (PathVariable)
- 341. Rest Webservices Input (RequestBody)

- 342. Rest Webservices Input (RequestParam)
- 343. GET mapping in detail
- 344. Image file upload
- 345. Diff file uploads
- 346. File upload along with JSON object
- 347. Multiple Files and Multiple JSON objects
- 348. Excel File upload and processing with POI
- 349. text file upload and inserting into db
- 350. Excel file upload and inserting into db
- 351. ResponseEntity - body and status code
- 352. ResponseEntity - body, headers and status code
- 353. ResponseEntity - File Download
- 354. Mail Sending setup and sending text mail
- 355. mail with HTML body
- 356. mail with attachment
- 357. mail with programmatic configuration(sending from a specific mail account)

**Course14: Spring Data JPA**

- 358. Setup
- 359. Save operation
- 360. Save All operation
- 361. PUT and PATCH operations
- 362. READ and DELETE operations
- 363. Generators
- 364. For Unique Columns
- 365. For NON Unique Columns
- 366. Where clause with Boolean LIKE
- 367. Where clause with Boolean AND
- 368. Where clause with Boolean OR
- 369. Table, Column, Not-NULL and Unique
- 370. Where clause with Greater Than (>) and Less Than (<)
- 371. Reading Single Column

- 372. Reading Multiple Columns
- 373. DTO Development
- 374. DTO Single Join
- 375. DTO Multiple Join
- 376. one-to-one uni directional
- 377. one-to-one bi directional
- 378. one-to-one sharing key (MapsId)
- 379. one-to-many uni directional
- 380. one-to-many bi directional
- 381. many-to-many

**Course15: Spring Security**

- 382. Security Setup
- 383. Inmemory Credentials and Password encoding
- 384. Reading Credentials from DB
- 385. Authorization Bsics
- 386. Authorization Patterns
- 387. Tesing Authentication through ARC
- 388. Setting up Angular
- 389. Tesing Authorization through Angular
- 390. Interception Filters
- 391. Guard Services
- 392. JWT implementation in Spring Boot app and calling from Angular app

**Course16: Microservices**

- 393. Feign client with Example
- 394. Feign and Ribbon client with Example
- 395. Feign, Ribbon and Eureka

- 396. Feign, Ribbon, Zuul and Eureka
- 397. Feign, Ribbon, Zuul and Slueth
- 398. RabbitMQ and Zipkin
- 399. Spring Cloud Config server
- 400. Spring Cloud Config client
- 401. Spring Cloud Actuator
- 402. Spring Cloud Bus
- 403. Spring Hystrix

**Course17: Java Full stack project development**

- 404. Spring boot first app
- 405. CommandLineRunner
- 406. Data JPA setup
- 407. Data JPA Basics
- 408. Custom Repository methods
- 409. Angular Client
- 410. Angular Client with template variable
- 411. Angular Client with template driven form-CREATE
- 412. Angular Client with template driven form-CREATE with Validations
- 413. Angular Client with template driven form-READ
- 414. Angular Client with template driven form-UPDATE and DELETE
- 415. Angular Client with Reactive Forms CREATE
- 416. Angular Client with Reactive Forms CREATE-Validations
- 417. Angular Client with Reactive Forms READ, UPDATE and DELETE
- 418. Lombok
- 419. MySQL Usage
- 420. Oracle Usage
- 421. Example1
- 422. Example2
- 423. Example3
- 424. Example3 continue ...
- 425. Data Poulation

- 426. Adv methods... set1
- 427. Adv methods ... set2
- 428. Adv methods ... set3
- 429. Adv methods set4
- 430. one-to-one setup
- 431. one-to-one unidirectional
- 432. one-to-one bi-directional
- 433. one-to-one mapsId
- 434. one-to-one client dev CREATE
- 435. one-to-one client dev RUD
- 436. one-to-many uni
- 437. one-to-many bi
- 438. one-to-many imp points
- 439. one-to-many clientside dev1
- 440. one-to-many clientside dev2
- 441. one-to-many clientside dev3
- 442. many-to-many server side
- 443. many-to-many services and controllers
- 444. many-to-many client side create
- 445. many-to-many client side read, update and delete
- 446. Bootstrap Setup and NavBar dev
- 447. DashBoard dev
- 448. DashBoard With Spring Security
- 449. Pagination in Angular
- 450. Security Headers
- 451. JWT Implementation
- 452. AWS account creation, EC2 creation and mobaXterm installation
- 453. JDK and Tomcat installations
- 454. jar and war deployment
- 455. jar and war deployment with angular code
- 456.** MySql Installation and Usage in EC2 instance