# PANKAJ SIR ACADEMY

# 2025 Updated Syllabus

# Full Stack Development with Java and Devops



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Core Java
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Core Java Syllabus: Core Java Made Easy!! Learn more than 1000+ MCQ interview questions with latest versions of JDK. At the end of session you will master in core java.

- 1. Java Development Kit
- 2. Java Platform Independency
- **3. Object Oriented Programming Introduction**



- 4. The 4 Object Oriented Principles
- 5. Encapsulation
- 6. Inheritance
- 7. Abstraction
- 8. Polymorphism
- 9. Building Blocks of a Java Program
- 10. Methods
- 11. Introduction to Java and OOPS
- 12. Installing Java
- 13. Installing Eclipse
- 14. Configuring JDK in eclipse
- 15. Downloading the completed projects
- 16. Create a Hello World Program
- 17. Hello World Explained
- 18. First Java Program
- 19. Static and Non Static Contexts
- 20. Static Blocks
- 21. Static Methods
- 22. Static Variables
- 23. Static Members
- 24. Non Static Members



- 25. Create Non Static Variables Blocks and Constructor
- 26. Static versus Non Static Blocks
- 27. Default Constructor
- 28. Create a object reference
- 29. Create object reference in a static block
- 30. Create a static reference directly
- 31. The this Keyword
- 32. Create a reference in a static method
- 33. Invoking a non static method
- 34. Static versus Non Static a Summary
- 35. Non Static Members
- 36. Data Type Introduction
- 37. Data Type In Action
- 38. Type Casting
- 39. Explicit Down casting
- 40. Up casting In Action
- 41. Type Casting In Action Beyond Range
- 42. Data Types
- 43. Variables
- 44. Wrapper Classes Introduction
- 45. Primitives and Objects



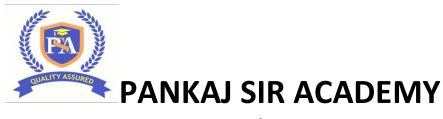
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- 46. Primitives and String
- 47. String and Objects
- **48. Wrapper Type Constructors**
- 49. Wrap up the wrapper types
- **50. Command Line Arguments**
- **51.** Wrapper Classes
- **52. Increment and Decrement Operators**
- 53. Arithmetic Operators
- **54. String Concatenation Operator**
- **55. Relational Operators**
- 56. bitwise operators
- 57. short circuit operators
- 58. assignment operator
- 59. Ternary Operator
- 60. Operators and Assignments
- **61. Flow Control Statements Introduction**
- 62. IF-ELSE
- 63. If Else Ladder
- 64. Switch
- 65. Switch Fall Through
- 66. While



- 67. Do-While
- 68. For Loop
- 69. Break
- 70. Labelled Blocks and Break
- 71. Continue
- 72. Flow Control Statements
- 73. Flow Control
- 74. Loops
- 75. More Programs If Else Ladder
- 76. Switch
- 77. While Loop
- 78. Do While Loop
- 79. For Loop
- **80. Introduction to Access Modifiers**
- 81. private
- 82. default
- 83. protected
- **84. Access Modifiers**
- 85. Packages Introduction
- **86. Importing Packages**
- 87. Using classes with the same name



- 88. Sub Packages
- 89. Java Lang Package
- 90. Naming the packages
- 91. Importing and Using In Built Classes
- 92. Packages
- 93. Create the Project and Package
- 94. Create the classes
- 95. Instantiate Organizer and Event
- 96. Create and use parameterized constructors
- 97. Single Inheritance
- 98. Multi Level Inheritance
- 99. Inheritance and Memory Allocation
- 100. Multi Level Inheritance and Constructors
- 101. Hierarchical Inheritance
- 102. Method Overriding
- 103. super Keyword
- 104. super Method
- 105. Constructor Chaining
- 106. Inheritance
- 107. Applying Inheritance to the Event Management Application
- 108. Create an abstract class



- 109. Main method in a abstract class
- 110. Extending an abstract class
- 111. Abstract and Other Modifiers
- 112. Create an interface
- 113. Interfaces versus Abstract Classes A Summary
- 114. Abstraction
- 115. Final Classes and Variables
- 116. Final Methods
- 117. Marker Interfaces
- 118. Abstraction
- 119. More Programs Methods and Variables in interfaces
- 120. Methods Signatures and multiple interfaces
- 121. Interfaces vs Abstract Classes
- 122. Compile Time Polymorphism Introduction
- 123. Compile Time Polymorphism In Action
- 124. Runtime Polymorphism
- 125. Runtime Polymorphism In Action
- 126. Interfaces
- 127. Using Interfaces
- 128. Object Casting
- 129. Polymorphism



- 130. More Programs Overloading and Auto Promotion
- 131. Auto Promotions and Object Types
- 132. Overriding and Static Method
- 133. Variables and Overriding
- **134.** Encapsulated Class
- 135. Advantages
- 136. Encapsulation
- 137. Encapsulation
- 138. Encapsulate the Event Management Application
- 139. Abstraction in Event Management Use case
- 140. Runtime Polymorphism in Action
- 141. Exception Handling Introduction
- 142. Exception while dividing numbers
- 143. Exception while parsing a String
- ${\bf 144.}\ ArrayIndexOutOfBoundException$
- 145. NullPointerException
- 146. Exception Class Hierarchy and Handling
- 147. Handling Exceptions
- 148. Multiple Catch Blocks
- 149. Exceptions and Inheritance
- **150.** Handling Checked Exceptions



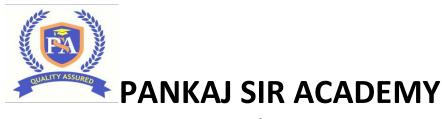
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- 151. Using a finally block
- 152. Using a throws keyword
- 153. Using a throw keyword
- **154. Creating Custom Exceptions**
- 155. Exception Handling
- 156. Assertions
- 157. Assertions Hands On
- 158. Exception Handling
- 159. Single Threaded Example
- 160. Multi Threading in Action
- 161. Sleep Method
- 162. Join Method
- 163. Calculating Time
- 164. Thread Identity
- 165. Thread Priority
- 166. Implementing Runnable Interface
- 167. Yield Method Demo
- 168. Interrupt Method Demo
- 169. Synchronization
- 170. Synchronization Demo
- 171. Class Level Lock



- 172. Class Level Lock Demo
- 173. Synchronized Block
- 174. Synchronized Blocks Demo
- 175. InterThread Communication
- 176. InterThread Communication in Action
- 177. Multi Threading
- 178. Disadvantages of traditional thread creation
- 179. Executor Framework Introduction
- 180. Implement CheckProcessorTask
- 181. Create a pool of threads
- 182. Callable and Future
- **183.** Implement Callable
- 184. Use Future and read the result
- 185. Introduction to Garbage Collection
- 186. Basic GC Demo
- 187. Pushing the JVM Memory Limits
- **188.** Requesting for Garbage Collection
- 189. Garbage Collection
- 190. Static Inner Classes With Static Members
- 191. Static Inner Classes With Non Static Members
- 192. Non Static Inner Classes



- 193. Accessing Outer Class Members
- 194. Local Inner Classes
- 195. Anonymous Inner Classes
- 196. Anonymous Connection Class
- 197. Anonymous Runnable Class
- 198. Inner Classes
- 199. Strings Introduction
- 200. Different ways to create a String
- 201. Strings and Wrapper Types
- **202. String Pooling**
- 203. String Pooling In Action
- 204. Immutability in Action
- 205. Immutable Values
- 206. String Comparison
- 207. Object Comparison
- 208. String Methods
- 209. More String Methods
- 210. StringBuffer and StringBuilder
- 211. String Handling
- 212. IO Streams Introduction
- 213. Read a File Using FileInputStream



- 214. Copy A File using FileOutputStream
- 215. Using Reader And Writer
- 216. StringTokenizer
- 217. Count Words Using BufferedReader and StringTokenizer
- 218. Try with Resource Block
- 219. Serialization
- 220. Serialization In Action
- 221. Deserialization In Action
- 222. IO Streams
- 223. Arrays
- 224. Using Arrays
- 225. For-Each Loop
- 226. Arrays
- 227. Introduction to Object Clas
- 228. toString method
- 229. Overriding the toString method
- 230. hashCode
- 231. Override the hashCode method
- 232. Override the equals method
- 233. equals and hashCode Contract
- 234. Object Class Methods



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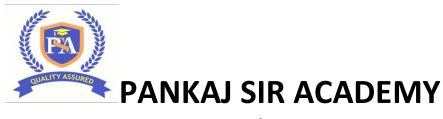
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- 235. Collections and Generis Introduction
- 236. List Introduction
- 237. ArrayList Hands On
- 238. Restricting the ArrayList Type
- 239. Inserting and Replacing Objects
- 240. addAll and contains Methods
- 241. size get and remove Methods
- 242. LinkedList
- 243. LinkedList Hands On
- 244. Set Introduction
- 245. Random class
- 246. Using HashSet
- 247. Different Set Classes
- 248. Iterator
- 249. TreeSet of Strings
- 250. TreeSet of StringBuffers
- 251. ListIterator
- 252. Comparable and Comparator
- 253. Create a StringBuffer Comparator
- 254. Sort Strings by Length
- **255. Sorting Objects**



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- 256. Create a Object Comparator
- 257. Map Introduction
- 258. HashMap Demo
- 259. LinkedHashMap Demo
- 260. IdentityHashMap Demo
- 261. WeakHashMap Demo
- **262. Queue Introduction**
- **263. Priority Queue Introduction**
- 264. Priority Queue In Action
- 265. NavigableSet Introduction
- 266. Navigable Set In Action
- 267. Navigable Map
- 268. Arrays and Collections Classes
- 269. Collections Sort
- **270. Using Custom Comparator**
- 271. Binary Search
- 272. Reversing a List
- 273. Arrays sort()
- 274. Arrays sort using custom comparator
- 275. Arrays Binary Search
- 276. Array to List conversion



- 277. Generics
- 278. Generic class structure
- 279. Create your own Generic Class
- 280. Restricting Generic Type Parameters
- 281. Using multiple restrictions
- 282. Using Generic Method Parameters and Wild Cards
- 283. Wildcard and extends
- 284. Wildcard and super
- 285. Method level generic type parameters
- 286. Type Erasure
- 287. Collections with generics
- 288. Enum Introduction
- 289. Using a Enum
- 290. Values and Ordinal methods
- 291. Defining and using fields
- **292. Enums**
- 293. Introduction to new features of JDK 1.8
- 294. Lambda Expressions
- 295. Functional Interfaces
- 296. Create a functional Interface
- 297. Create your first Lambda



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- 298. Addition using Lambdas
- 299. Lambdas using Runnable Interface
- 300. Lambdas and anonymous classes
- 301. Default methods in interfaces
- 302. Diamond Problem and Default Methods
- 303. Predicates
- 304. Predicate handson
- **305. String Predicate**
- 306. Passing Predicate to a method
- 307. Predicate Joins
- 308. Predicate Joins in Action
- 309. Functions
- 310. Function Hands On
- 311. Method Referencing using :: Operator
- 312. Method Referencing in action
- 313. Referencing an instance method
- 314. Referencing a Constructor
- 315. Streams Introduction
- 316. Filter Even Numbers Using Streams
- 317. Convert Strings to Lower Case using streams
- 318. Other Methods on the Stream



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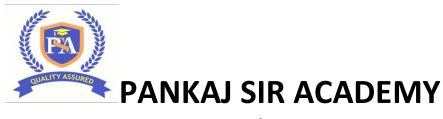
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- 319. What is a Virtual Machine?
- 320. Components of a JVM
- 321. How Class Loaders Work
- 322. Types of class loaders
- 323. Dynamic Class Loading In Action
- 324. Class is loaded only once
- 325. Display the class loaders
- 326. Class Loading Sub System
- 327. Linking
- 328. Initialization
- 329. Method Area
- 330. Stack Area
- 331. Heap Area
- 332. PC Registers Area
- 333. Native Method Stack Area
- 334. Introduction to internationalization
- 335. Locale
- 336. Locale hands on
- 337. NumberFormat
- 338. NumberFormat integers and fractions
- 339. DateFormat



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- website www.pankajsiracademy.com
- 340. DateFormat hands on
- 341. DateFormat Time instance
- 342. SimpleDateFormat Class
- 343. String to Date
- 344. Including Time
- 345. Introduction to annotations
- 346. Using @Deprecated
- 347. Annotations
- 348. Using @Override
- 349. Using @SuppressWarnings
- 350. @SuppressWarnings and Generic Types
- 351. Create User Defined Annotation
- 352. Use your annotation
- 353. Examine the inbuilt annotations
- 356. Key Reflection API Classes
- 357. Load the Class
- 358. List the constructors fields and methods
- 359. Create an Object
- 360. Invoke the Parameterized Constructor
- 361. Invoke the Getter
- 362. Invoke the Setter



- 363. Summary so far
- 364. Reflection
- 365. Modifying private fields
- **366. Accessing Annotations**
- 367. Accessing fields on annotation
- 368. Components To Compile and Run a Java Program
- 369. Constructors
- 370. Overloading vs Overriding
- 371. Final Finally and Finalize
- 372. Generics and Type Erasure
- 373. == vs equals()
- 374. Java Class Loaders
- 375. serialVersionUID
- 376. Introduction to new features of JDK 1.9
- 377. Software Setup
- 378. Private Methods in interfaces
- 379. Static Private Methods
- 380. Improved Try with resource blocks
- 381. Immutable Collections
- 382. @SafeVarargs Enhancements
- 383. New Methods in streaming API



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- 384. JSHELL Introduction
- 385. JShell in Action
- 386. More JShell
- 387. Modules Introduction
- 388. Create Modules
- 389. Use one module inside another
- 390. Packages are mandatory
- 391. Transitive Dependencies
- 392. Using Static and Cyclic Dependencies
- 393. Qualified Exports
- 394. Aggregator and Package Resolution Assignment
- 395. Collection Cocept Updates Java 21
- 396. Using var to declare variables
- 397. Uses of var
- 398. var restrictions
- 399. Collectors API updates
- 400. Assignment
- 401. is Empty on Optional
- 402. Removals



2. ADVANCE JAVA - Outdated - Learning point of view

This module covers foundational web technologies like HTML, CSS, JSP, Servlets, JDBC, and SQL, essential for understanding full-stack development basics. Though considered outdated for modern development, they offer valuable learning on request-response flow, database connectivity, and MVC architecture. A mini project consolidates these concepts practically



- -> css
- -> jsp
- -> servlets
- -> jdbc
- -> sql
- -> mini project

3. Spring boot / hibernate / web services (API development) / micro services

Learning Spring Boot, Hibernate, Web Services (API development), and Microservices is essential for modern Java developers aiming to build scalable, efficient, and enterprise-level applications. Spring Boot simplifies application



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setup with minimal configuration, while Hibernate streamlines database operations through powerful ORM features. API development enables seamless communication between systems, a must in today's connected world. Microservices architecture allows applications to be modular, easier to maintain, and scalable across cloud platforms. Together, these technologies form the backbone of real-world backend systems used in banking, ecommerce, healthcare, and more—making them critical for securing top-tier developer roles and staying competitive in the job market.

- -> Spring boot
- -> Spring versus Spring boot
- -> Spring project setup in eclipse / STS / IntellijIdea
- -> Spring boot annotations in detail
- @SpringBootApplication Combines @Configuration, @EnableAutoConfiguration, and @ComponentScan.
- @ComponentScan Scans and registers Spring components in specified packages.
  - @Configuration Marks a class as a source of bean definitions.
  - @Bean Declares a method as a Spring bean.
  - @Component Marks a class as a Spring-managed component.
  - @Service Marks a class as a service-layer component.
- @Repository Marks a class as a persistence component and enables exception translation.
  - @Controller Declares a class as a web controller.



- @RestController Combines @Controller and @ResponseBody for REST APIs.
  - @Autowired Injects Spring beans automatically.
- @Qualifier Specifies which bean to inject when multiple candidates exist.
  - @Value Injects values from properties or environment.
  - @PostConstruct Method runs after dependency injection is done.
  - @RequestMapping Maps HTTP requests to handler methods.
  - @GetMapping.
  - @PostMapping.
  - @PutMapping.
  - @DeleteMapping.
  - @PathVariable Binds URI template variables to method parameters.
  - @RequestParam Binds query parameters to method parameters.
  - @RequestBody Binds HTTP request body to a method parameter.
  - @ResponseBody Returns method result as HTTP response body.
    - @Valid Triggers validation on annotated objects.
    - @SpringBootTest Loads full application context for integration testing.
    - @MockBean Mocks a bean for use in tests.
    - @TestConfiguration Provides custom bean definitions for testing.



- -> Spring Validations
- -> Spring Security + JWT (Login + Logout)
- -> API Development (Webservices) + JSON objects
- -> Microservices versus monolithic Application
- -> Spring Profiles
- -> Spring Batch
- -> Third party API integration like SMS, EMAIL, Whatsapp
- -> Spring MVC
- -> Exception Handling
- -> Java 8 features inplmentation in Spring boot
- -> Spring Batch
- -> Spring Cloud
- -> Microservice
- -> Admin Server / Client
- -> Spring Actuators
- -> Zipkin
- -> Eureka (Service Discovery)
- -> API gateway
- -> Rest Template
- -> Web Client
- -> Feign Client



- -> Hystrix (Circuit Breaker)
- -> Implementing Spring Security + JWT token in microservice (Signup, login, OTP based login etc)
- -> Kafka
- -> Hibernate versus Spring Data JPA
- -> JPA Annotations in detail
  - @Entity Marks a class as a JPA entity.
  - @Table(name = "table\_name") Specifies the database table name.
  - @Id Declares the primary key of the entity.
- @GeneratedValue(strategy = ...) Configures the primary key generation strategy.
  - @Column(name = "column\_name") Maps a class field to a table column.
  - @Transient Excludes a field from persistence.
  - @Lob Used for large objects (CLOB/BLOB).
- @Temporal Specifies temporal types for Date/Calendar (DATE, TIME, TIMESTAMP).
  - @OneToOne Defines a one-to-one relationship.
  - @OneToMany Defines a one-to-many relationship.
  - @ManyToOne Defines a many-to-one relationship.
  - @ManyToMany Defines a many-to-many relationship.
  - @JoinColumn Specifies the foreign key column.
  - @JoinTable Defines a join table for many-to-many relations.



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- @MappedBy Indicates the inverse side of a bidirectional relationship.s.
- @Query Defines custom JPQL/native queries in repository methods.
- @Version Enables optimistic locking for concurrency control.
- -> JpaRepository versus CRUDRepository
- -> What is ORM
- -> Hibernate mapping OneToOne, OneToMany, ManyToOne, ManyToMany
- -> Bidirections and Unidirectional Mapping
- -> Hibernate Cache
- -> Derived Queries (Method Name Based) findByxxx()
- -> JPQL (Java Persistence Query Language)
- -> Performing JOIN operations using JPQL
- -> Native SQL Queries
- -> Pagination & Sorting in JPARepository

**Project Work - Microservices** 

This microservices-based project simulates a real-world hotel booking platform, designed to give learners hands-on experience with scalable architecture and



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end-to-end development. It covers key modules like user management with OTP and encrypted login, property listing with AWS S3 photo uploads, and advanced hotel search using JOIN queries. The booking system handles availability, pricing, cart management, payment integration, and PDF confirmations via email and WhatsApp. It includes notification and review systems, ensuring a complete user experience. The project is deployed on AWS with a CI/CD pipeline, offering practical exposure to cloud deployment. This makes it ideal for resume-building and interview readiness.

Step 1: Creating ER Diagrams with normalization technique by Understading Requirment Document

Step 2: High level design (HLD)

Step 3: Modules we will develop

#### 1. User Module

- a. Registration with password encryption
- b. Forgot password
- c. Reset Password
- d. Login
- e. Logout
- f. OTP based login

Note: We will perform role based logins



- 2. Property Module:
  - a. Upload Photos in s3 and storing url in database
  - **b.** Add property Details
  - c. Update & delete Property Details
- 3. Search Module
  - a. Search Hotel based on city, Country, Area etc using JOIN Queries
- 4. Booking Module
  - a. Select Hotel
  - b. Check Rooms availability
  - c. Add hotel to cart
  - d. Per night price calculations
  - e. Payment gateway integration
  - f. On successful payment generate PDF confirmation document and send email and whats app to customer
  - g. One room multiple users are booking. How to tackle that
- 5. Notification System
- a. Based on the current date bookings, auto email so be scheduled
- b. Auto sending of SMS/ Whats app messages



- 6. Review Management System
  - a. User only after loggedin can give review
  - b. Same user cannot give Mulitple Reviews for the same hotel
  - c. Loggedin user should be able to delete / update / view reviews
- 7. Project Deployment to AWS by creating CI/CD pipeline

Tools - 15+ trending tools used in industry

Learning these tools is crucial for developers and DevOps engineers to optimize their workflows and enhance productivity. Git and GitHub streamline version control and collaboration. JMeter aids in performance testing, while Docker and Kubernetes enable efficient containerization and orchestration. Jira helps with project management, and JUnit, Mockito, and JaCoCo support automated testing and code coverage. SLF4J simplifies logging, and ELK is invaluable for monitoring and log analysis. Maven handles project builds, Jenkins enables CI/CD pipelines, and SonarQube ensures code quality. Postman and Swagger are essential for API testing. Redis Cache boosts performance, and Outlook is essential for communication and scheduling.

1. git and git hub



- 2. Jmeter
- 3. Docker
- 4. Jira
- 5. Junit
- 6. Mockito
- 7. Jacoco
- 8. SL4J
- 9. ELK
- 10. Maven
- 11. Kubernetes
- 12. Jenkins CI/CD pipeline
- 13. SonarQube
- 14. Test API PostMan, Swagger
- 15. Redis Cache
- 16. Outlook

#### SDLC - software development life cycle

- 1. waterfall model
- 2. spiral model
- 3. v-model



4. hybrid model

Agile (important)

- 1. What is Agile?
- 2. Agile vs. Traditional (Waterfall) Methodologies
- 3. Scrum (most important)
  - 3.1 Roles: Scrum Master, Product Owner, Development Team
- 3.2 Events: Sprint, Daily Scrum, Sprint Planning, Sprint Review, Sprint Retrospective
  - 3.2 Artifacts: Product Backlog, Sprint Backlog
- 4. Kanban Board
- 5. User Stories and Acceptance Criteria
- 6. Estimation Techniques: Story Points, Planning Poker
- 7. Agile Tool Jira

**LINUX** 

Linux is essential for developers and DevOps engineers due to its widespread use in production environments, especially in cloud and server infrastructures. Developers benefit from Linux's powerful command-line tools, compatibility with programming languages, and open-source contributions. DevOps engineers rely on Linux for managing cloud infrastructure, automation through scripting, and containerization tools like Docker and Kubernetes. Both roles require



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knowledge of Linux for tasks like version control, security, monitoring, and performance optimization. In summary, Linux provides the flexibility, efficiency, and scalability needed for modern development, deployment, and system management, making it a crucial skill for both developers and DevOps professionals.

- 1. Why Should a developer or devops engineer learn linux
- 2. Linux Operating System (OS) history
- 3. Linux Distributions(Amazon Linux, Ubuntu, Red Hat, Debian, Kali, Fedora)
- 4. How to setup Linux Operating System?
- 5. Linux Commands Mastery (Nearly 500+ commands you learn pratically)
- 6. Managing User Groups in Linux
- 7. Enabling Password-Based Authentication in Linux
- 8. File Permissions in Linux
- 9. Working with ZIP Files in Linux
- **10. Networking Commands**
- 11. Package Managers in Linux
- 12. Linux Architecture Components

#### SHELL SCRIPT

1. Why Use Scripting?



- 2. What is Shell Scripting?
- 3. Common Use Cases of Shell Scripting
- 4. What is Sha-Bang?
- **5. Variable Naming Conventions in Shell**
- 6. Types of Variables in Linux
- 7. Setting Variables Permanently in Linux
- 8. How to Set Variables for All Users in Linux?
- 9. Operators in Linux Shell Scripting
- 10. Indentation how to remember
- 11. Looping in Shell Scripting
- 12. Functions in Shell Script
- 13. Scheduling CRON JOB

#### **AWS SERVICE:**

Learning AWS services is essential for both developers and DevOps engineers to build and manage scalable, secure applications in the cloud. EC2 and EBS are foundational for compute and storage, while Load Balancers (monolithic and microservices) ensure traffic distribution. Security Groups and Key Pairs handle security. Auto Scaling and Snapshots provide flexibility and backup. VPC and IAM Roles enable secure network management. EKS simplifies container orchestration, and EFS offers scalable file storage. CloudFormation and Terraform manage infrastructure as code. Monitoring and notifications are



handled via CloudWatch and SNS. S3 provides storage, while RDS and Lambda enhance database and serverless operations.

- 1. EC2
- **2. EBS**
- 3. LoadBalancers
  - 3.1 Monolythic
  - 3.2 Microservices
- 4. Security Group
- 5. Key pairs
- 6. Memory Types in Server
- 7. Auto Scaling
- 8. SNAPSHOTS
- 9. VPC
- 10. IAM Role
- **11. EKS**
- 12. EFS
- 13. Cloud Formation
- 14. Coud Watch
- **15. SNS**
- 16. Terraform



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17. Ansible
18. Grafana
19. S3
20. Elastic Beanstalk
21. RDS
22. AWS Lamda
Project Work - For Resume
Step 1: Creating ER Diagrams by Understading Requirment Document
Step 2: High level design (HLD)
Step 3: Modules we will develop

- 1. User Module
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  - c. Add hotel to cart
  - d. Per night price calculations
  - e. Payment gateway integration



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- f. On successful payment generate PDF confirmation document and send email and whats app to customer
- g. One room multiple users are booking. How to tackel that
- 5. Notification System
- a. Based on the current date bookings, auto email so be scheduled
- b. Auto sending of SMS/ Whats app messages
- 6. Review Management System
  - a. User only after loggedin can give review
  - b. Same user cannot give Mulitple Reviews for the same hotel
  - c. Loggedin user should be able to delete / update / view reviews
- **Step 4. Resume Preparation**

#### Step 5:

- -> Support to get placed with minimum 5 to 8 interview calls per week
- -> No Validity for placement support

#### **Angular with Typescript**



**Module 1: Advanced Angular Concepts** 

**TypeScript** 

**Angular Introduction** 

**Angular Architecture** 

**Module 2: Data Binding & Component Interaction** 

**Data Binding - Fundamentals** 

**Data Binding with Loops and Events** 

**Visiting Card & Employee Details Components** 

**Module 3: Pipes & Custom Component Logic** 

**Pipes in Angular** 

**Employee Details with Custom Pipes** 

**Employee Count Component** 

**Complete Employee Details Module** 

**Module 4: Directives & Lifecycle** 

Structural and Attribute Directives

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Lifecycle Hooks in Angular
Advanced Directives

Module 5: Angular Services & Dependency Injection

Creating and Injecting Angular Services

**Module 6: Routing in Angular** 

**Routing Project Setup** 

**Routing Fundamentals** 

**Child Routes Configuration** 

**Routing with Query Parameters** 

**Routing in Product Section** 

**Route Guards and Access Control** 

**Module 7: Angular Forms** 

**Template-Driven Forms** 

**Reactive Forms** 

**Module 8: Final Integration** 

**End-to-End Integration Project** 

