|  |  |  |
| --- | --- | --- |
| STUDENTS NAME: | | |
| 1 st class | Introduction to Java  •OOPs Concept in brief  • Features of java language (including platform independence)  • Definition of class and object  • One simple example to demonstrate class and object  • Data types in java, brush-up of if-else, switch-case, loops  • Know The history and Future of Java  • Creating and initializing array with example |  |
|  | Array and Class Design  • Class and object creation  • Different class creation  • calling methods  • Definition of the Constructor  • Default constructor  • Constructor overloading  • Constructor chaining within same class by using this ()  • Simple example to demonstrate method overloading  • Know Java 7 specific Switch case |  |
|  | Inheritance, Package and Access Specifiers, Method Overriding  •Creating subclass by using extends keyword  • Constructor chaining between super class and sub class using super ()  • Method overriding and dynamic method dispatching (runtime polymorphism)  • Package definition, creation and run a class with package name  • Access specifiers (private, default, protected and public) |  |
|  | Static, Abstract, Final, Interface and Java 8 features  •Accessing static and non static members from both static and non static methods  • A simple example to demonstrate static members are shared by all the objects.  • Abstract class and abstract method.  • Final class, final method, final variable  • Definition of Interface.  • Implementing one or more than one interfaces.  • Using extends and implements together |  |
|  | Exception Handling  •Exception definition  • Brief hierarchy of exception classes and JVM errors  • Checked and unchecked exceptions  • Exception handling by using try and catch block  • Finally block  • Exception Declaration by using throws  • Custom exception  • STACK, QUEUE,LINKLIST |  |
|  | Thread Safety requirement  • Thread definition  • Lifecycle states of a thread  • Creating thread by extending Thread class and implementing Runnable interface  • Different methods of Thread class |  |
|  | Swing & Applet Intro  •Why we need Swing when you have AWT and Applet  • Creating GUI  • Event Handling in Detail  • Swing with JDBC |  |
|  | Collection and JDBC  • Collection in brief  • Difference between List and Set and Map  • A Real Life Example  • JDBC in Detail with Oracle  • Using Statement, Prepared Statement to send insert, update, delete and select to database |  |
|  | 1. [Immutable String](http://www.javatpoint.com/immutable-string) 2. [String Comparison](http://www.javatpoint.com/string-comparison-in-java) 3. S[tring Concatenation](http://www.javatpoint.com/string-concatenation-in-java) 4. [Substring](http://www.javatpoint.com/substring) 5. [Methods of String class](http://www.javatpoint.com/methods-of-string-class)    1. [String charAt()](http://www.javatpoint.com/java-string-charat)    2. [String compareTo()](http://www.javatpoint.com/java-string-compareto)    3. [String concat()](http://www.javatpoint.com/java-string-concat)    4. [String contains()](http://www.javatpoint.com/java-string-contains)    5. [String endsWith()](http://www.javatpoint.com/java-string-endswith)    6. [String equals()](http://www.javatpoint.com/java-string-equals)    7. [equalsIgnoreCase()](http://www.javatpoint.com/java-string-equalsignorecase)    8. [String format()](http://www.javatpoint.com/java-string-format)    9. [String getBytes()](http://www.javatpoint.com/java-string-getbytes)    10. [String getChars()](http://www.javatpoint.com/java-string-getchars)    11. [String indexOf()](http://www.javatpoint.com/java-string-indexof)    12. [String intern()](http://www.javatpoint.com/java-string-intern)    13. [String isEmpty()](http://www.javatpoint.com/java-string-isempty)    14. [String join()](http://www.javatpoint.com/java-string-join)    15. [String lastIndexOf()](http://www.javatpoint.com/java-string-lastindexof)    16. [String length()](http://www.javatpoint.com/java-string-length)    17. [String replace()](http://www.javatpoint.com/java-string-replace)    18. [String replaceAll()](http://www.javatpoint.com/java-string-replaceall)    19. [String split()](http://www.javatpoint.com/java-string-split)    20. [String startsWith()](http://www.javatpoint.com/java-string-startswith)    21. [String substring()](http://www.javatpoint.com/java-string-substring)    22. [String toCharArray()](http://www.javatpoint.com/java-string-tochararray)    23. [String toLowerCase()](http://www.javatpoint.com/java-string-tolowercase)    24. [String toUpperCase()](http://www.javatpoint.com/java-string-touppercase)    25. [String trim()](http://www.javatpoint.com/java-string-trim)    26. [String valueOf()](http://www.javatpoint.com/java-string-valueof) 6. [StringBuffer class](http://www.javatpoint.com/StringBuffer-class) 7. [StringBuilder class](http://www.javatpoint.com/StringBuilder-class) 8. [String vs StringBuffer](http://www.javatpoint.com/difference-between-string-and-stringbuffer)[StringBuffer vs Builder](http://www.javatpoint.com/difference-between-stringbuffer-and-stringbuilder) 9. [Creating Immutable class](http://www.javatpoint.com/how-to-create-immutable-class) 10. [toString method](http://www.javatpoint.com/understanding-toString()-method) 11. [StringTokenizer class](http://www.javatpoint.com/string-tokenizer-in-java) |  |
|  | JAVA DATE   1. [java.util.Date](http://www.javatpoint.com/java-util-date) 2. [java.sql.Date](http://www.javatpoint.com/java-sql-date) 3. [DateFormat](http://www.javatpoint.com/java-date-format) 4. [SimpleDateFormat](http://www.javatpoint.com/java-simpledateformat) 5. [Get Current Date](http://www.javatpoint.com/java-get-current-date)   JAVA CONVERSION   1. [Java String to int](http://www.javatpoint.com/java-string-to-int) 2. [Java int to String](http://www.javatpoint.com/java-int-to-string) 3. [Java String to long](http://www.javatpoint.com/java-string-to-long) 4. [Java long to String](http://www.javatpoint.com/java-long-to-string) 5. [Java String to float](http://www.javatpoint.com/java-string-to-float) 6. [Java String to double](http://www.javatpoint.com/java-string-to-double) 7. [Java String to Date](http://www.javatpoint.com/java-string-to-date)   FILE HANDLING |  |