

Android

Core Java Syllabus

1 Java Basics Introduction

- Programming Metrology
- Execution of a program
- C and C++ Program Execution
- Java Program Execution
- Feature Of java
- Difference Between C++ and Java
- Types Of java
- Java History

2 Java Virtual Machine Architecture

- Introduction of JVM
- JVM architecture
- Types of Memory
- Method area
- Heap area
- Java stack
- Java runtime stack
- Pc register
- Native method area

3 Java Identifiers and Keywords

- Introduction of java identifiers
- Introduction of java keyword

4 Java Data Types and literals

- Introduction of java data types
- Char data types
- Int data types

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- Long data types
- Float data types
- Double data types
- Boolean data types

5 Java Basic Programs

- Java Hello Program
- Java Arithmetic Operations

6 Java Coding Standards

- Coding standard for variable
- Coding standard for method
- Coding standard for class
- Coding standard for final variables
- Coding standard for interface

7 Control Flow

- Types of statements
- If else statements
- Switch statements
- Do while loop
- While loop
- For loop
- For each loop
- Differences in loops
- Infinite loop
- Nested loop
- Break and continue statement
- Return statement

8 Java Input output

- BufferedReader class
- InputStreamReader Class

9 Java StringTokenizer and scanner class

- Introduction of StringTokenizer class

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- Introduction of Scanner class

10 Java Arrays

- Array introduction
- One dimensional arrays
- Array length
- Sorting
- Searching
- Two dimensional arrays
- Multidimensional dimensional arrays
- Anonymous Array

11 Java Command line Arguments

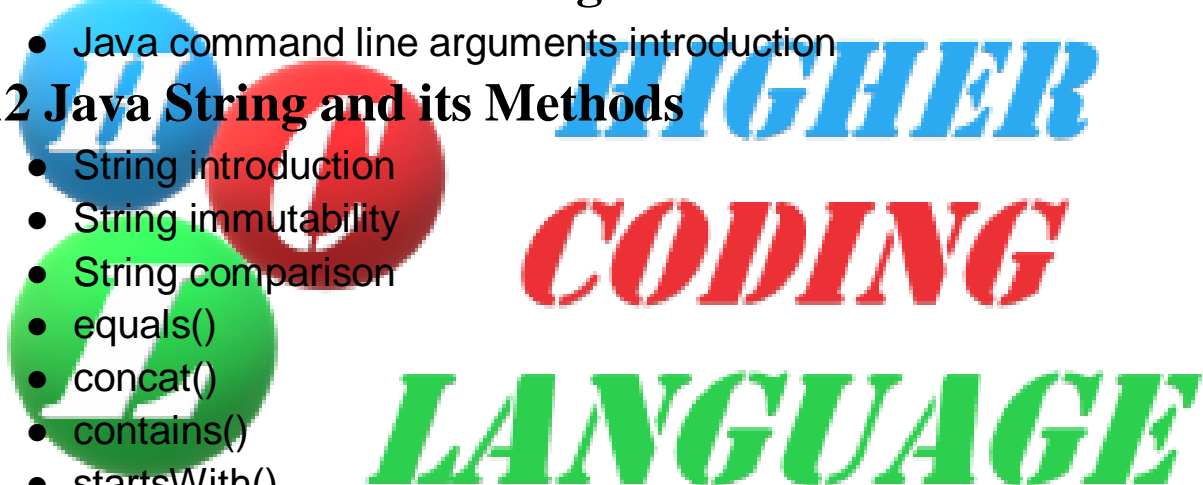
- Java command line arguments introduction

12 Java String and its Methods

- String introduction
- String immutability
- String comparison
- equals()
- concat()
- contains()
- startsWith()
- endsWith()
- equalsIgnoreCase()
- isEmpty()
- length()
- replace()
- replaceAll()
- split()
- toString()
- trim()

13 Java StringBuffer and StringBuilder

- String mutability



- append()
- reverse()
- Difference between String,Stringbuffer and StringBuilder

14 Java Var-arg Method

- Introduction of var arg method

15 Java Class and objects

- Introduction of class and objects
- Create class and objects
- Methods in class
- Initialize var by object
- Initialize var by parameterize method

16 Java Types of Variables

- Instance Variables
- Static variables
- Local variables

17 Java Constructor

- Introduction of constructor
- Properties of constructor
- Default constructor
- Parameterized constructor

18 Java Method

- Method introductions
- Types of methods
- Types of user defined methods
- Static Method With Instance variable
- Static Method with static variable
- Static method
- Static block
- Factorial Using Recursion

19 Java Encapsulation and abstraction

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- Introduction of encapsulation
- Introduction of abstraction

20 Java Inheritance

- Introduction of inheritance
- Types of inheritance
- Ambiguity problem in multiple inheritance
- Super and this keyword
- this() and super() Constructor
- Default Constructor of Super Class
- Parameterized Constructor of Super Class
- constructor chaining
- Singleton classes

21 Java polymorphisms

- Introduction of polymorphisms
- types of polymorphisms
- Compile time polymorphisms
- Runtime polymorphisms
- Method overloading
- Method overriding

22 Type casting

- Implicit type casting
- Explicitly type casting
- Widening In referenced Data type
- Narrowing in Reference data type
- New operator
- newInstance() operator

23 Java Abstract class

- Introduction of abstract class
- Properties of abstract class

24 Java Interface

- Introduction of interface



- Properties of interface
- Multiple inheritance by interface
- Extends vs implementation
- Interface methods
- Interface variables
- Difference between normal class, abstract class and interface
- Anonymous inner class and lambda function
- Normal interface vs functional interface vs marker interface

25 Java Package

- Introduction of package
- Types of package
- User defined package

26 Java Access Specifiers

- Public access specifier
- Private access specifier
- Protected access specifier
- Default access specifier
- Final keyword

27 Java Exception Handling

- Types of errors
- Introduction of Exception
- Exception handling using try, catch and finally
- Difference between final, finally and finalize()
- Multiple catch block
- Throws keyword
- Checked exceptions
- Throw keyword

28 Java Thread

- Introduction of thread
- Application of thread
- Main thread

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- Create thread by Thread class
- Difference between start() and run()
- Multi threading by Thread class
- Create thread by Runnable Interface
- isAlive()
- Getting and setting thread name
- Thread Priority
- yield()
- join()
- sleep()
- interrupt()
- Thread synchronization block
- Demon Thread
- Thread Group
- Thread pools

29 Java Collection Framework

- Collection framework introduction
- Limitation of array
- Generics
- List interface
- ArrayList Class
- LinkedList Class
- Vector Class
- Stack Class
- Queue Interface
- PriorityQueue Class
- Set interface
- Difference between List and Set
- HashSet Class
- LinkedHashSet Class
- SortedSet Interface
- TreeSet Class

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- Iterator
- Iterator And ListIterator
- Collections Class
- Java map Interface
- HashMap class
- LinkedHashMap class
- SortedMap Interface
- TreeMap class
- Hashtable
- Comparable and Comparator
- Difference between Comparable and Comparator
- difference between hashmap and hashtable
- Properties file

30 Java Files and Wrapper classes

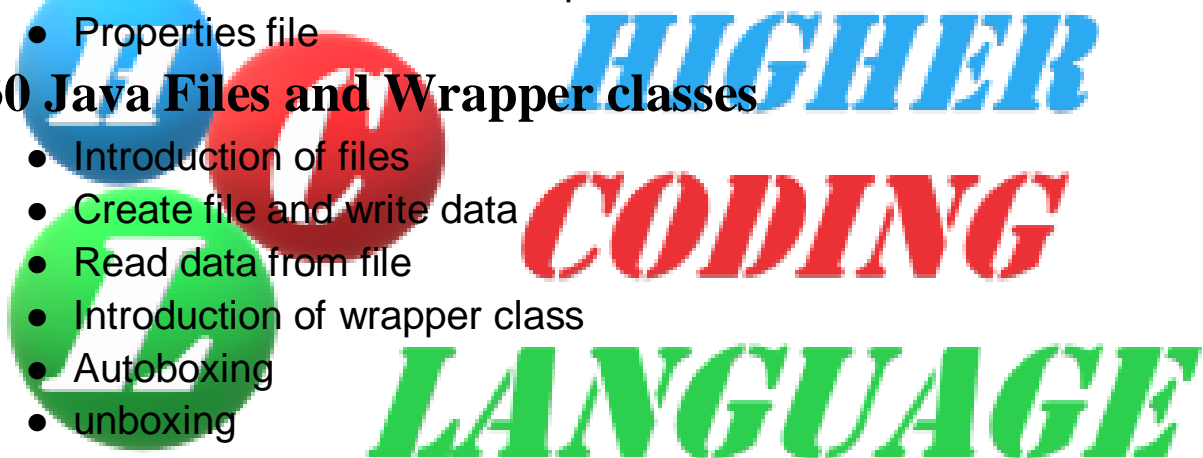
- Introduction of files
- Create file and write data
- Read data from file
- Introduction of wrapper class
- Autoboxing
- unboxing

31 Java Inner classes

- Introduction of Inner class
- Types of inner classes
- Nesting inner classes
- Normal or regular inner class
- Anonymous inner class
- Static nested classes

32 Java Object class

- Object Class Introduction
- Methods of Object class
- toString()



- equals()
- hashCode()
- clone()
- finalize()
- Garbage collector
- wait()
- Notify and notifyAll()
- SCP pool
- Shallow and deep cloning
- Types of Java Object Creation

33 Java serialization and deserialization

- Introduction of serialization
- Transient Keyword
- serialVersionUID
- Deserialization

34 Java Calendar class

- Calendar class
- Date and Time class

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Android Syllabus

1)Android Basics

- Introduction
- Mobile OS/Firmware In Market
- Types of Android Devices
- Android Features
- Android versions
- Android Architecture
- Android component

2)Android Setup

- JDK Setup
- SDK Setup
- Android Studio
- Structure of android studio

3)Basics Program

- Hello Program
- Activity Lifecycle

4)Layout Design

- Linearlayout
- Absolutelayout
- Relativelayout
- Table Layout

5)Android Widgets

- Button and edit text
- Arithmetic Operation
- Compound button
- Autocompletetextview
- Progressbar
- Spinner
- Datepicker

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- Timepicker
- Set border

6)Advance Widget

- Gallery
- Gridview
- Imageview
- Tab view
- Video View
- Webview
- Fragment

7)Telephony Manager

- Calling
- Dialing
- Email
- SMS
- IMEI NO

8)Alert

- Toast
- Dialog Box

9)List & Menu

- List View
- Android Menu

10) Intent & Notification

- DataTransfer
- Notification
- Intent and its types

11) Multimedia

- Access Gallery
- Camera
- Sound Button



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12) Service & Content Provider

- Access contact
- Add Contact
- Read SMS
- Save SMS
- Service

13) SharedPreferences & Database

- SharedPreferences
- Database
- Preference

14) Wifi & Bluetooth

- Wifi
- Bluetooth

15) Advanced Topic

- JSON Parsing
- Download Image From Server
- Read File From Sdcard
- Set Image As Wallpaper

16) Bitmap & animation

- Animation
- Bitmap Class

17) Sensors

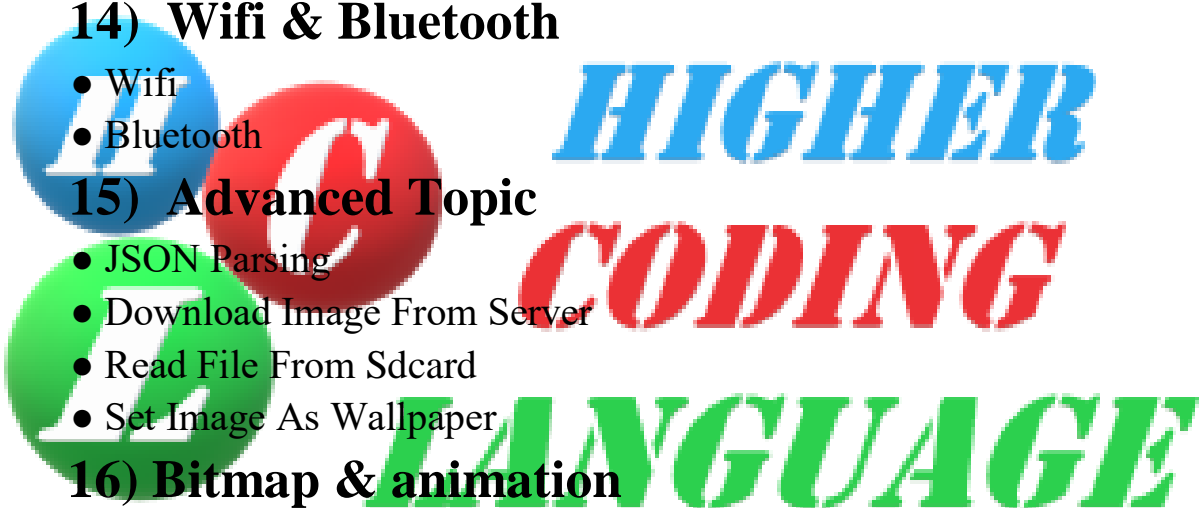
- Sensors
- Sensors types

18) Text to Speech & Speech to text

- Text to Speech
- Speech to text

19) Google Map & Graphics

- Google Map
- Graphics



20) Publish App on play store

- Web Service
- Google Firebase
- Google firestore

21) Publish App on play store

- Facebook Integration
- LinkedIn Integration
- Twitter Integration
- Youtube Integration

22) Publish App on play store

- Admob Integration
- Publish on play store



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