Certificate Course on Learn Java

Babu Jagjivan Ram Government Degree College
Narayanaguda, Hyderabad. (T.S.) 500029

REPORT ON CERTIFICATE COURSE (2017-18)

1. **Name of the Course:** Certificate Course on Learn Java in 30 Hours.

2. **Department:** Computer Science

3. **Duration:** 01.11.2017 to 20.11.2017, No. of hours – 30 Hours No. of days - 15 Days

4. **Whether brochure containing details of curriculum, assessment, procedures, etc., is enclosed? Yes**

5. **Number of students enrolled:** 30 No.s

6. **Whether list of students is enclosed? (Yes/No):** Yes

7. **Brief Report of the Certificate Course along with the outcome:**

Objectives:

The certificate course is aimed to make students expertise with Programming with Java. This course is targeted for the students who are having programming knowledge at entry level.

Report:

A total of 30 Students have enrolled for the course. Students with great enthusiasm learned the course and successfully received course completion certificates.

Outcome: The course have shown significant improvement in programming skills among the students. Students provided their positive feedback and suggested to continue the course for next academic year.

Signature of I/C of Dept.:..

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NOTICE

30.10.2017

This is to inform all the students of B.A, B.Com and B.Sc that the department of computer science is organizing a certificate course titled "Learn Java in 30 Hours" to be scheduled from 01.11.2017 through 20.11.2017 for a period of 30 Hours. Interested students are requested to contact the in-charge, department of computer science and register for the course on or before 30.10.2017.

Principal
B.J.R. Govt. Degree College
Vittal Wadi, Narayanguda,
Hyderabad. T.S.

BJR Government Degree College, Hyderabad
Department of Computer Science

Certificate Course on
Learn Java in 30 Hours

What is Java?

About the Course: The certificate course is aimed to make students expertise with Programming with Java. This course is targeted for the students who are having programming knowledge at entry level.

Duration: 01.11.2017 – 20.11.2017
(30 Hours)

Registration: Please register on or before 31.10.2017

Contact Incharge, Department of Computer Science

Course Brochure

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Vittal Wadi, Narayanguda,
Hyderabad. T.S.

Certificate Course on
Learn Java in 30 Hours

Duration: 30 Hours

Syllabus

Indeed, JAVA is one of the most demanding programming languages in the IT world. Statistically, there are around 7-8 million JAVA Developers across the world and the number is growing rapidly. Needless to say, JAVA has a lot of career opportunities in the tech market and the language will undoubtedly remain in demand in the upcoming times as well. Moreover, all the aspiring developers who want to make it big in the programming world can take JAVA into consideration. Additionally, you can learn this particular language efficiently by following a relevant pathway and with genuine hard work & dedication.

Before moving further, let's take a look at the origin of the language. JAVA was developed by **James Gosling** at *Sun Microsystems* in 1995 and the language runs on different platforms such as **Windows, Mac, Linux**, etc. The language is majorly used for building enterprise-scale web applications and Android apps. Also, the salaries of JAVA developers are comparatively higher in comparison to various other languages. Here in this article, we will let you know about the *structured roadmap or curriculum that you need to follow to learn JAVA in a mere 20 Hours!*

1. Start with the Fundamentals (Hour: 1-3)
Whether it be JAVA or any other programming language, you're always required to **understand the nature and basics of the language** before proceeding to the core concepts. You can start with the introduction of the language, its features, applications, etc. Meanwhile, you also need to know how to set up the JAVA environment in a system and can consider to create, compile, and execute your first Java Programs well. It will help you to get familiar with the basic syntax of the language and other aspects. You can explore several Integrated Development Environments (IDEs) as well such as *Eclipse, Net beans*, etc.

- Introduction to Java & Its Features
- Java Virtual Machine (JVM)
- Setting Up the JAVA Environment
- Hello World Program in JAVA
- Integrated Development Environments (IDEs) for JAVA

2. Learn Data Types, Variables & Conditional Statements (Hour : 4-6)
Once you'll get done with the basics, now you need to learn several other crucial concepts that can be considered as prerequisites before working on any language. You need to know *how to declare variables in JAVA, how to implement conditional statements, modifiers & operators in JAVA*, etc. You are also recommended to learn about the implementation of loop statements in JAVA. Moreover, you can **practice several basic programs** based on the relevant to particular topics for a better understanding of the concepts.

-
  Data Types | Variables
- Conditional Statements
- Loops in JAVA
- Modifiers | Operators
- Programs: Swapping of numbers, Factorial, Fibonacci Series, etc.

3. Understand Arrays & String Manipulation in JAVA (Hour: 7-10)
Okay, now take a step forward and start to learn the concepts like *Array, Strings*, etc in JAVA. You're required to understand how to create an Array & access its elements, Strings in JAVA, and other related concepts. Meanwhile, the working of Arrays in JAVA is different in comparison to C/C++ as in Java all arrays are dynamically allocated and various other features as well. Also, you can explore here some additional tips such as *Type conversions, Scope of Variables*, etc. to get your concepts more clear.

- Arrays | Strings
- Array vs Array List in Java
- Scope of Variables
- Type Conversion in Java
- Switch Statement in Java

4. Get Familiar with Classes, Objects & Methods (Hour: 11-13)
After going through the above-mentioned topics, you will have a decent base that is required to learn any programming language. Now, you're required to understand the basic building blocks of JAVA i.e, Classes & Objects. You're required to understand what are the Classes in JAVA, how to create an Object, etc thoroughly. Moreover, you need to learn about the Methods in JAVA, what are their significance, and how to create & use them. You also need to learn about Constructors which is a crucial part of JAVA programming.

- Classes & Objects
- Methods in Java
- Method Overloading | Method Overriding
- Parameter Passing in JAVA
- Constructors in Java

5. Gear Up to the OOPs concepts (Hour: 14-17)
Now, its time to get into the core of JAVA programming – **Object-Oriented Programming (OOPs) Concepts.** JAVA is an Object-Oriented Programming Language that works on various principles such as *Polymorphism, Inheritance, Encapsulation, and Abstraction*. You need to command over these paradigms to learn the language more efficiently. Moreover, you will be

of OOPs concepts

- Inheritance | Encapsulation
- Polymorphism | Runtime Polymorphism
- Abstraction
- Super Keyword | This Keyword
- Association, Composition, and Aggregation

6. Learn about Interfaces & Packages in JAVA (Hour: 18-21)

After going through the OOPs concepts, now you need to dive deeper into the JAVA programming world. You are required to cover topics like *Interfaces, Packages, Abstract Class*, etc. Precisely, an interface can also have methods and variables, but the methods declared in an interface are by default abstract. On the other hand, Packages in Java is a process to encapsulate a group of classes, sub-packages, and interfaces. Here you can cover several other topics also such as the difference between Abstract Class and Interface in Java, Nested Interface, etc.

- Interfaces | Packages
- Nested Interface | Marker Interface
- Abstract Classes
- Difference between Abstract Class & Interface
- Java.Time, Java.Lang, Java.Math and other packages

7. Go Through Exception Handling, I/O Streams & Multithreading Concepts

Now, its time to understand concepts like how to deal with exceptions and warnings in JAVA – *Exception Handling*, concurrent execution of two or more parts of a program – *Multithreading*, input and output streams in Java – *I/O Streams*, etc. Also, you need to learn about *Regular Expressions* (Regex) in Java for defining String patterns that can be used for searching, manipulating, and editing text. These concepts are very crucial to understand the deep functioning of JAVA and also plays a vital role in program or project development.

- Exception Handling
- Types of Exceptions
- Multithreading in JAVA
- Regular Expression in JAVA
- File Handling in JAVA

8. Understand Collection Framework, AWT & SWING (Hour: 22-30)

Okay, now you're required to emphasize on implementation aspects also of all the concepts and theoretical knowledge you've covered in the above stages. You need to know about the Collection Framework that defines several classes and interfaces to represent a group of objects as a single unit. Meanwhile, you also required to get familiar with Abstract Window Toolkit (AWT) and Swing in JAVA to work on several minor and major projects with Graphical User Interface (GUI).

- Collections in Java
- Generics in Java
- Java Swing | Simple Calculator
- Java AWT
- JAVA Projects

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Hyderabad. T.S.

Students list for "Learn Java in 30 Hours"

107015129020	P.Srinivasulu
107015129021	Md.Aijaz Ahmed
107015129022	Bishal Gurung
107015129023	Md.Abdul Rahman
107015129024	Md.Kaleem
107015129025	Shaik Umer Farooquddin
107015129026	G.Harish
107015129027	Rajamallu Goud
107015129028	C.Rajpal
107015129029	Mirza Fadeel Hussain
107015156505	K.Nandu
107015156506	G.Nagesh
107015156507	Anantaiah
107015156508	R.Nikil
107015156509	M.Devender
107015156510	K.Narsimha
107015156511	T.Pramod Kumar
107015156512	D.Ashok
107015156513	K.Ramesh
107015156514	M.Shiva Kumar
107015156515	A.Samba Shivudu
107015401021	Mohsin Anwar
107015401022	Shaik Mahboob
107015401023	Juveriya Firdous
107015401024	Syed Toufeeq
107015401025	Wasim Akram
107015401026	Mehraj Md
107015401027	Syed Ismail
107015401028	Syed Hamid Muazzam Amil
107015401029	V.Bhargavi
107015401030	Md.Sami ullah

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Section – A

10 * ½ = 5 Marks

1. what is the initial name for Java ( ) | |
   (a) coffee   (b) neem   (c) oops   (d) oak

2. what kind of language is java   ( ) | |
   (a) compiled   (b) Machine   (c) interpreted   (d) both (a) and (c)

3. what values does boolean variable take   ( ) | |
   (a) true and false   (b) 0   (c) 1   (d) Both (b) and (c)

4. What is the range of short data type in Java?   [   ]
   a) -128 to 127   b) -32768 to 32767   c) -2147483648 to 2147483647
   d) None of the mentioned

5. What is the range of byte data type in Java?   [   ]
   a) -128 to 127   b) -32768 to 32767   c) -2147483648 to 2147483647
   d) None of the mentioned

6. Which of the following are legal lines of Java code?   [   ]
   1. int w = (int)888.8;   2. byte x = (byte)100L;   3. long y = (byte)100;   4. byte z = (byte)100L;

   a) 1 and 2   b) 2 and 3   c) 3 and 4   d) All statements are correct.

7. An expression involving byte, int, and literal numbers is promoted to which of these? [   ]
   a) int   b) long   c) byte   d) float

8. Which of these literals can be contained in float data type variable?   [   ]
   a) -1.7e+308   b) -3.4e+038   c) +1.7e+308   d) -3.4e+050

9. Which data type value is returned by all transcendental math functions? [   ]
   a) int   b) float   c) double   d) long

10. What is the output of this program?   [   ]

```
class average {
    public static void main(String args[])
    {
        double num[] = {5.5, 10.1, 11, 12.8, 56.9, 2.5};
        double result;
        result = 0;
        for (int i = 0; i < 6; ++i)
            result = result + num[i];
                System.out.print(result/6);
    }
}
```

   a) 16.34   b) 16.566666644   c) 16.4666666666667   d) 16.46666666666666

SECTION – B (10 * ½ = 5 Marks)

1. The output of the Java compiler is known as --- ------.

2. The .org part of a domain name stands for --.

3. The --- statement is used to include another Java package in a Java source file.

4. URL stands for --.

5. -- is the protocol used to transmit hyper text over the Internet.

6. -- command is used as the Java interpreter.

7. Java supports -- programming.

8. The output of the Java compiler is executed by the --.

9. -- is the java compiler.

10. Java uses -- to represent characters.

SECTION – C (5 * 1= 5 Marks)

1. Java type conversion

2. Operator precedence in java

3. Two identifier naming rules in java

4. Static variable

5. Java is strongly typed language. How?

Course Completion - Results

107015129020	P.Srinivasulu	Course Completed
107015129021	Md.Aijaz Ahmed	Course Completed
107015129022	Bishal Gurung	Course Completed
107015129023	Md.Abdul Rahman	Course Completed
107015129024	Md.Kaleem	Course Completed
107015129025	Shaik Umer Farooquddin	Course Completed
107015129026	G.Harish	Course Completed
107015129027	Rajamallu Goud	Course Completed
107015129028	C.Rajpal	Course Completed
107015129029	Mirza Fadeel Hussain	Course Completed
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107015156507	Anantaiah	Course Completed
107015156508	R.Nikil	Course Completed
107015156509	M.Devender	Course Completed
107015156510	K.Narsimha	Course Completed
107015156511	T.Pramod Kumar	Course Completed
107015156512	D.Ashok	Course Completed
107015156513	K.Ramesh	Course Completed
107015156514	M.Shiva Kumar	Course Completed
107015156515	A.Samba Shivudu	Course Completed
107015401021	Mohsin Anwar	Course Completed
107015401022	Shaik Mahboob	Course Completed
107015401023	Juveriya Firdous	Course Completed
107015401024	Syed Toufeeq	Course Completed
107015401025	Wasim Akram	Course Completed
107015401026	Mehraj Md	Course Completed
107015401027	Syed Ismail	Course Completed
107015401028	Syed Hamid Muazzam Amil	Course Completed
107015401029	V.Bhargavi	Course Completed
107015401030	Md.Sami ullah	Course Completed

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B.J.R. Govt. Degree College
Vittal Wadi, Narayanguda

Course Completion Certificates(s)

BJR GOVERNMENT DEGREE COLLEGE
Narayanguda, Hyderabad

Department of Computer Science/Applications

Certificate

This is to certify that Mr/Ms. _____P. Srinivasulu_____

bearing registered no. __1070-15-129-020__ has successfully completed

the certificate course on____Learn Java in 30 HD____

_____

held during __01-11-2017__ to __80-11-2017__.

K. SirivodaRa Reo.
Coordinator

Principal

Student Attendance – Learn Java (2017-18)

2017 - 18
Student Attendance – Learn Java in 30 Hours (2016-17)

SNo.	Sname	01.11.17	02.11.17	03.11.17	06.11.17	07.11.17	08.11.17	09.11.15	20.11.17	18.11.17
107015129020										
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SNo	Sname	14.11.17	15.11.17	16.11.17	17.11.17	18.11.17	20.11.17
107015129020	P.Srinivasulu						
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