



#### 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
- 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.:

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

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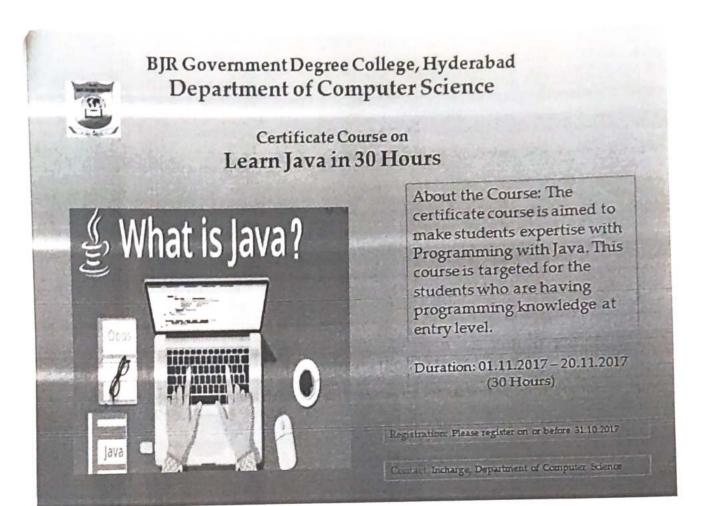
#### NOTICE

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.



Course Brochure

B.J.R. Govt. Degree College 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

Before moving further, let's take a look at the origin of the language. JAVA was developed by James Gosling at Sun genuine hard work & dedication. 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!

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

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 able to understand the topics like overloading, overriding, etc. more credibly, once you'll get done with the understanding of OOPs concepts

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

After going through the OOPs concepts, now you need to dive deeper into the JAVA programming world. You are required 6. Learn about Interfaces & Packages in JAVA (Hour: 18-21) 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

Now, its time to understand concepts like how to deal with exceptions and warnings in JAVA - Exception Handling, 7. Go Through Exception Handling, I/O Streams & Multithreading Concepts 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

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

R. Govt. Degree College Vittal Wadi, Narayanguda, 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	01029 V.Bhargavi		
107015401030	Md.Sami ullah		

B.J.R. Gova, Degree College

#### BJR Government Degree College, Hyderabad. Certificate Course - Learn Java in 30 Hours Final Assessment (Question Paper)

#### Section - A

10 \* 1/2 = 5 Marks

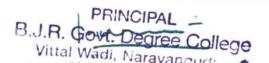
1, what is the initial name for lava ( )	I	1			
(a) coffee (b) neem (c) oops (d) oak		*			
k 200					
2. what kind of language is java ()	1	1			
(a) compiled (b) Machine (c) interpreted (d) both (a) a	ind (c)				
3.what values does boolean variable take ()	l	1			
(a) true and false (b) 0 (c) 1 (d) Both (b) and (c)					
4. What is the range of short data type in Java?	r	1			
a) -128 to 127 b) -32768 to 32767 c) -2147483648 to 21	ι 47483647	. '			
d) None of the mentioned	17 100017				
5. What is the range of byte data type in Java?	l	1			
a) -128 to 127 b) -32768 to 32767 c) -2147483648 to 2147	483647				
d) None of the mentioned					
5 Which of the fellowing and 2	f	1			
6. Which of the following are legal lines of Java code?  1. int w = (int)888.8;  2. byte x = (byte)100L	. 3. lone	y = (byte)100;	4. byte	Z =	
1. int $w = (int)888.8$ ; 2. byte $x = (byte)100L$ ; (byte)100L;	,	,, ,,			
a) 1 and 2 b) 2 and 3 c) 3 and 4 d) A	ll stateme	ents are correct.			
100 m	•	atad to which o	of these?	1	]
7. An expression involving byte, int, and literal numb	ers is pro	moted to writer s			
a) int b) long c) byte d) float					
8. Which of these literals can be contained in float dat	a type va	riable?		[	1
a) -1.7e+308 b) -3.4e+038 c) +1.7e+308 d) -3	.4e+050				
		h functions? [	1		
9. Which data type value is returned by all transcende	ental mai	n functions: [	,		
a) int b) float c) double d) long					
10. What is the output of this program?			[	1	
class average (					
public static void main(String args[])					
1					
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);					
1					
1					
a) 16.34 b) 16.566666644 c) 16.4666666666666	67 d) 1	6.4666666666666			
SECTION - B (10		Marks)			
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1. The output of the java complet is this in the					

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12 The orb.	me stands for
<i> </i>	statement is
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.	command is used as the java
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programming.	
	piler is executed by the
9	is the java
compiler.	
10. Java uses	to represent
characters.	
	SECTION – C (5 * 1= 5 Marks)
	SECTION - C (5 1-5 Names)
1. Java type conversion	
2. Operator precedence in jav	va
2. Operator precedence in ju-	90
3. Two identifier naming ru	les in java
3. Two identifier flaming 1st.	
4. Static variable	
	112
5. Java is strongly typed lan	nguage. How?

B.J.R. Govt. Degree College Vittal Wadi, Narayanguda, Hyderabad 3

#### **Course Completion - Results**

107015129020 P.Srinivasulu		Course Completed
07015129021	Md.Aijaz Ahmed	Course Completed
107015129022	Bishal Gurung	Course Completed
107015129023	Md.Abdul Rahman	Course Completed
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107015129026	G.Harish	Course Completed
107015129027	Rajamallu Goud	Course Completed
107015129028	C.Rajpal	Course Completed
107015129029	Mirza Fadeel Hussain	Course Completed
107015156505	K.Nandu	Course Completed
07015156506 G.Nagesh		Course Completed
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
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107015401025	Wasim Akram	Course Completed
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107015401028	Syed Hamid Muazzam Amil	Course Completed
107015401029	V.Bhargavi	Course Completed
107015401030	Md.Sami ullah	Course Completed



# 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	
registered no. 1070-15-129-020 has succe	essfully completed
the certificate course on Learn Joua in 30	O H75
held during 01-11-2017 to 20-11-2017.	
Coordinator	Principal

## Student Attendance – Learn Java (2017-18)

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PRINCIPAL

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