

Name of Faculty : GAJE SINGH

Semester : 6th

Subject : Programming in Java

Lesson Plan : 15 Weeks (from January, 2018 to April 2018)

Week	Theory		Practical Day
	Lecture Day	Topic (including assignment / test)	
1	1st Day	A brief history, how Java works?	1st
	2nd Day	Java Virtual Machine (JVM), Java In Time (JIT) compiler	
	3rd Day	Java features, using Java with other tools,	
2	4th Day	Native code, Java application types	2nd
	5th Day	Comparison with C and C++	
	6th Day	Revision of Java and its features	
3	7th Day	Java identifiers, keywords, escape sequences	3rd
	8th Day	Working with data types, variables and constants	
	9th Day	Operators	

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4	10th Day	Control flow statements - if-else with examples	4th
	11th Day	Switch-case with examples	
	12th Day	Control flow statements - for loop, while loop, do-while loop	
5	13th Day	Arrays, Casting	5th
	14th Day	Strings	
	15th Day	Command line arguments with example	
6	16th Day	Revision of Java Fundamentals and Assignment-1	6th
	17th Day	Seminar-1	
	18th Day	Introduction to Classes, declaring a class, class members, creating an object, accessing class members,	
7	19th Day	Passing values to methods, Call by value and call by reference	7th
	20th Day	The main() method, passing arguments to a method	
	21st Day	Inheritance, method overloading, method overriding	

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8	22nd Day	Encapsulation and polymorphism,	8th
	23rd Day	Constructors and finalizers	
	24th Day	Garbage collection, Java Modifiers (static and final)	
9	25th Day	Access specifier - Private, Public, Protected, Private-Protected, default	9th
	26th Day	Using Java interface	
	27th Day	Using Java packages	
10	28th Day	Creasion of User-defined Packages	10th

Week	Theory		Practical Day
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	29th Day	Revision of Java Classes, Interfaces, Packages and Assignment-2	
	30th Day	Seminar-2	
11	31st Day	Over view of exception handling	11th
	32nd Day	Method to use exception handling	
	33rd Day	Method available to exceptions (The throw statement, the throws class, finally class)	
12	34th Day	Creating your own exception classes	12th
	35th Day	Revsion of Exceptions	
	36th Day	Overview, thread basics – creating and running a thread	
13	37th Day	The thread control methods,	13th
	38th Day	The threads life cycle and synchronization	
	39th Day	Java applets Vs Java applications	
14	40th Day	building application with JDK	14th
	41st Day	building applets with JDK	
	42nd Day	HTML for Java applets	
15	43rd Day	Managing input-output stream	15th
	44th Day	Revision of Threads, Applets and Streams (Assignment-3)	
	45th Day	Seminar-3 (Final Conclusion)	

Practical

Topic

Installation of Java and Java IDEs

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1(a) Write a program which tells whether a number is even or odd. Take a range from 1 – 50
1(b) Display the output which is given below:

```
*  
* *  
* * *
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Practical

Topic

d) Write a programme to determine the sum of the following harmonic series for a given value of n: $1 + \frac{1}{2} + \frac{1}{3} + \dots + \frac{1}{n}$
the value of n should be given interactively through the keyboard

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Write a programme to convert the given temperature in Fahrenheit to Celsius using the following conversion formula
 $C = \frac{F - 32}{1.8}$ and display the value in a tabular form

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Given a list of marks ranging from 0 to 100, write a programme to compute and print the number of student should have obtained marks (a) in the range 81 to 100
(ii) in the range 61 to 80 (c) in the range 41 to 60 (d) in the range 0 to 40. The programme should use a minimum number of if statement

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Practical

Topic

Admission to a professional course is subject to the following conditions:

Marks in mathematics ≥ 60

Marks in physics ≥ 50

Marks in chemistry ≥ 40

Total in all 3 subjects ≥ 200 (OR)

Total in mathematics and physics ≥ 150 given the marks in the 3 subjects. Write the programme to process the application to list the eligible candidates

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Practical

Topic

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Write a program which will store the students roll no. names and total marks in the database

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Write a program which will display all those records whose marks are above 75%

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Exercises on exceptional handling

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Exercises on creating and running threads

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