



LESSON PLAN

Subject : ADVANCED JAVA PROGRAMMING		
Year : III B-Tech	Semester : I	Branch : IT
Faculty : V.VIDYA SAGAR	Reg : R16	Academic Year : 2020-21

COURSE OBJECTIVES:

- Getting the student to be well trained in Advanced Java Programming skills for an easy entry in the IT Industry.

COURSE OUTCOMES:

1	Factual	CO1 : Able to understand different types of collections and its usage.
2	Conceptual	CO4 : Understand the basics of Java Server Pages.
3	Procedural	CO2 : Able to construct bean applications like session bean, entity bean. CO3 : Construct a Web Application using Servlets.
4	Applied	CO5 : Construct a Web application using Java Server Pages. CO6 : Design Dynamic web applications with database tables.

TEXT BOOKS:

1. Internet and World wide web- How to program , Dietel and Nieto , Pearson. (Chapters: 3, 4, 8, 9, 10, 11, 12 to 18)
2. The Complete Reference, Java 2 , 3ed, Patrik Naughton, Herbert Schildt, TMH. (Chapters: 19, 20, 21, 22, 25, 27)
3. Java Server Pages , Hans Bergstan, Oreilly (Chapters: 1-9)

REFERENCE BOOKS:

1. Jakarta Struts cook book, Bill Siggelkow, SPD, Oreilly (Chapter 8)
2. Murach's, Beginning Java JDK5, Murach, SPD.
3. An introduction to Web Design and Programming, Wang Thomson
4. Web application technologies concepts, Knuckles, John Wiley.
5. Programming world wide web, Sebesta, Pearson
6. Building Web Applications, NIIT, PHI
7. Web Warrior Guide to Web Programing, Bai, Ekedaw, Thomas, Wiley
8. Beginning Web Programming, Jon Duckett ,Wrox, Wiley
9. Java server pages, Pekowsky, Pearson

UNIT – 1 : INTRODUCTION-BASICS

[Total Classes : 11]

Activity:

1	Factual	Reading Prerequisite concepts- Html and java collections and Basic definitions, Videos of java collections Referring the content on the Internet
2	Conceptual	Video Lectures related to java collections NPTEL Videos Links from the Internet Animations of java collections Explained Examples
3	Procedural	Refer to text book content and syntax Other Implementation of java collections Syntax with examples(simple to complex)
4	Applied	Solving Exercises Implementing Programs Assignments Quiz etc...

Activity / Schedule of UNIT-1 :

Pre-Class : Videos, E-books, Web links, Case Studies etc...

In-Class : Explanation on concept, discussion, Poll, doubts clarification, PPT, Demo etc..

Post-Class : Discussion Forum, Review on topic, Assessment, Quiz, Notes etc....

CLASS SL NO	CONCEPT	OBJECTIVES	PRE-CLASS	IN-CLASS	POST-CLASS
1.	Introduction to HTML & html5 (revise)	To introduce html concept	<p>Video Link : https://www.youtube.com/watch?v=9gTw2EDkaDQ</p> <p>Text Book : Pdf (e-book) Upload</p> <p>Web Link : https://www.w3schools.com/html/html_intro.asp#:~:text=Text%20Markup%20Language%20is%20the%20standard%20markup%20language%20for%20creating%20Web%20pages.is%20a%20link%22%2C%20etc.</p>	<p>Discussion on pre-requisites (10 Min)</p> <p>PPT presentation/class /demo (35 Min)</p> <p>Summary (5min)</p> <p>Doubts clarification (10 min)</p>	<p>Discussion Forum on the topic in the group</p> <p>Review on the topic</p> <p>Share material on the topic</p>
2.	Recapitulation of XHTML, XHTML5	To Understand the concept of Recapitulation of XHTML, XHTML5	<p>Video Link : https://www.youtube.com/watch?v=m8_4rfZ8lxA</p> <p>Text Book : Pdf (e-book) Upload</p> <p>Web Link : https://documents.pub/document/xml-xhtml-html5.html</p>	<p>Revise previous class – (5 mins)</p> <p>Asking Questions on previous class randomly (5 Mins)</p> <p>PPT presentation (20 min)</p> <p>Example (10 min)</p> <p>Doubts clarification (10 min)</p>	<p>Discussion Forum on the topic in the group</p> <p>Review on the topic</p> <p>Share material on the topic</p>
3.	Java Swing package	To Understand the concept of Java Swing	<p>Video Link : https://www.youtube.com/watch?v=jUEOWVjnIR8</p>	<p>Revise previous class – (5 mins)</p> <p>Asking</p>	<p>Discussion Forum on the topic in the</p>

		package	<p>Text Book : Pdf (e-book) Upload</p> <p>Web Link : https://www.javatpoint.com/java-swing</p>	<p>Questions on previous class randomly (5 Mins)</p> <p>PPT presentation (20 min)</p> <p>Example (15 min)</p> <p>Doubts clarification (10 min)</p>	<p>group</p> <p>Review on the topic</p> <p>Share material on the topic</p>
4.	use of System class & Applet Context	To Understand the concept of use of System class	<p>Video Link : https://www.youtube.com/watch?v=7KThZb9G7II</p> <p>Text Book : Pdf (e-book) Upload</p> <p>Web Link : https://www.geeksforgeeks.org/java-lang-system-class-java/#:~:text=System%20class%20in%20Java,-Last%20Updated%3A%2010&text=Among%20the%20facilities%20provided%20by,a%20portion%20of%20an%20array.</p>	<p>Revise previous class – (5 mins)</p> <p>Asking Questions on previous class randomly (5 Mins)</p> <p>PPT presentation (20 min)</p> <p>Example (15 min)</p> <p>Doubts clarification (10 min)</p>	<p>Discussion Forum on the topic in the group</p> <p>Review on the topic</p> <p>Share material on the topic</p>
5.	object serialization in java	To Understand the concept of object serialization	<p>Video Link : https://www.youtube.com/watch?v=qo9S2CeoqQE</p> <p>Text Book : Pdf (e-book) Upload</p> <p>Web Link : https://dzone.com/articles/serialization-amp-de-serialization-in-java#:~:text=Object%20Serialization%20is%20a%20process,byte%20stream%20is%20called%20deserializati on.</p>	<p>Revise previous class – (5 mins)</p> <p>Asking Questions on previous class randomly (5 Mins)</p> <p>PPT presentation (20 min)</p> <p>Example (15 min)</p> <p>Doubts clarification (10 min)</p>	<p>Discussion Forum on the topic in the group</p> <p>Review on the topic</p> <p>Share material on the topic</p>

6.	shallow and deep copying	To Understand the concept Of shallow and deep copying	<p>Video Link : https://www.youtube.com/watch?v=QaCYMgyprt</p> <p>Text Book : Pdf (e-book) Upload</p> <p>Web Link : https://www.edureka.co/blog/shallow-and-deep-copy-java/#:~:text=The%20deep%20copy%20of%20an.created%20by%20calling%20clone%20method.</p>	<p>Revise previous class – (5 mins)</p> <p>Asking Questions on previous class randomly (5 Mins)</p> <p>PPT presentation (20 min)</p> <p>Example (15 min)</p> <p>Doubts clarification (10 min)</p>	<p>Discussion Forum on the topic in the group</p> <p>Review on the topic</p> <p>Share material on the topic</p> <p>Exercises to solve</p>
7.	Java collections – Iterators – Array Lists	To Understand the concept of Java collections – Iterators – Array Lists	<p>Video Link : https://www.youtube.com/watch?v=lxVj1vWdArg</p> <p>Text Book : Pdf (e-book) Upload</p> <p>Web Link : https://www.callicoder.com/java-arraylist/#:~:text=Array%20List%20in%20Java%20is%20used.and%20implements%20Java's%20List%20interface.</p>	<p>Revise previous class – (5 mins)</p> <p>Asking Questions on previous class randomly (5 Mins)</p> <p>PPT presentation (20 min)</p> <p>Example (15 min)</p> <p>Doubts clarification (10 min)</p>	<p>Discussion Forum on the topic in the group</p> <p>Review on the topic</p> <p>Share material on the topic</p> <p>Exercises to solve</p>
8.	sets –hashset– hash table	To understand the concept of sets – hashset–hash table	<p>Video Link : https://www.youtube.com/watch?v=q6n9gScJP7c</p> <p>Text Book : Pdf (e-book) Upload</p> <p>Web Link : https://stackoverflow.com/questions/47838841/hashtable-hashmap-hashset-hash-table-concept-in-java-collection-framework#:~:text=The%20Javadoc%20for%20HashSet%20says,(actually%20a%20HashMap%20instance).&text=This%20class%20</p>	<p>Revise previous class – (5 mins)</p> <p>Asking Questions on previous class randomly (5 Mins)</p> <p>PPT presentation (20 min)</p> <p>Example (15 min)</p> <p>Doubts clarification (10 min)</p>	<p>Discussion Forum on the topic in the group</p> <p>Review on the topic</p> <p>Share material on the topic</p> <p>Exercises to solve</p>

			implements%20a%20hash.key%20or%20as%20a%20value.		
9.	queue- priority queue class	To Understand the concept of queue- priority queue class	<p>Video Link : https://www.youtube.com/watch?v=OxhYCLWMdHs</p> <p>Text Book : Pdf (e-book) Upload</p> <p>Web Link : geeksforgeeks.org/priority-queue-class-in-java-2/</p>	<p>Revise previous class – (5 mins)</p> <p>Asking Questions on previous class randomly (5 Mins)</p> <p>PPT presentation (20 min)</p> <p>Example (15 min)</p> <p>Doubts clarification (10 min)</p>	<p>Discussion Forum on the topic in the group</p> <p>Review on the topic</p> <p>Share material on the topic</p> <p>Quiz</p>
10.	vector class-comparable interface.	To Understand the concept of vector class-comparable interface.	<p>Video Link : https://www.youtube.com/watch?v=swEvHhN9l8k</p> <p>Text Book : Pdf (e-book) Upload</p> <p>Web Link : https://mkyong.com/java/java-object-sorting-example-comparable-and-comparator/</p>	<p>Revise previous class – (5 mins)</p> <p>Asking Questions on previous class randomly (5 Mins)</p> <p>PPT presentation (20 min)</p> <p>Example (15 min)</p> <p>Doubts clarification (10 min)</p>	<p>Discussion Forum on the topic in the group</p> <p>Review on the topic</p> <p>Share material on the topic</p>
11.	Revising the Concepts in unit-1 Completely	To Revise all the concepts of unit-1	Refer the previous Links of all the concepts in unit-1	<p>Revise previous class – (5 mins)</p> <p>Asking Questions on previous class randomly (5 Mins)</p> <p>PPT presentation (20 min)</p> <p>Example (15 min)</p> <p>Doubts clarification (10 min)</p>	<p>Discussion Forum on the topic in the group</p> <p>Review on the topic</p> <p>Share material on the topic</p> <p>Assignment – 1 Quiz-1</p>

UNIT – 2 : JAVA BEANS**[Total Classes : 10]****Activity:**

1	Factual	Reading Prerequisite concepts- Java Beans and Basic definitions, Videos related to Java Beans Referring the content on the Internet
2	Conceptual	Video Lectures related to Java Beans NPTEL Videos Links from the Internet Animations of Java Beans Explained Examples from Internet
3	Procedural	Refer to text book content and syntax Understanding the Syntax Syntax with examples(simple to complex)
4	Applied	Programs demo / Video demo Implementing Programs, Configuration of Environments Assignments Quiz etc...

Activity / Schedule of UNIT-2 :

Pre-Class : Videos, E-books, Web links, Case Studies etc...

In-Class : Explanation on concept, discussion, Poll, doubts clarification, PPT, Demo etc..

Post-Class : Discussion Forum, Review on topic, Assessment, Quiz, Notes etc....

CLASS SL NO	CONCEPT	OBJECTIVES	PRE-CLASS	IN-CLASS	POST-CLASS
1.	Introduction to Java Beans	To introduce The concept of Java Beans	<p>Video Link : https://www.youtube.com/watch?v=eEIPZgfQyI</p> <p>Text Book : Pdf (e-book) Upload</p> <p>Web Link : https://javatutorial.net/introduction-javabeans-components</p>	<p>Discussion on pre-requisites (10 Min)</p> <p>PPT presentation (30 Min)</p> <p>Discussion or Poll activity (5 min)</p> <p>Summary (5min)</p> <p>Doubts clarification (10 min)</p>	<p>Discussion Forum on the topic in the group</p> <p>Review on the topic</p> <p>Share material on the topic</p>
2.	Advantages of Java Beans,	To enhance the understanding Advantages of Java Beans,	<p>Video Link : https://www.youtube.com/watch?v=k-maPxM3ry8</p> <p>Text Book : Pdf (e-book) Upload</p> <p>Web Link : http://enggedu.com/tamilnadu/university_questions/question_answer/bend_2006/7th_sem/cse/cs1401/part_b/15_b_1.html</p>	<p>Revise previous class – (5 mins)</p> <p>Asking Questions on previous class randomly (5 Mins)</p> <p>PPT presentation/class (30 min)</p> <p>Doubts clarification (10 min)</p>	<p>Discussion Forum on the topic in the group</p> <p>Review on the topic</p> <p>Share material on the topic</p>
3.	BDK Introspection	To understand the concept of BDK Introspection	<p>Video Link : https://www.youtube.com/watch?v=io2TciOcf2Y</p> <p>Text Book : Pdf (e-book) Upload</p> <p>Web Link : http://www.brainkart.com/article/Introspection---Java-Beans_10768/</p>	<p>Revise previous class – (5 mins)</p> <p>Asking Questions on previous class randomly (5 Mins)</p> <p>PPT presentation/class (30 min)</p>	<p>Discussion Forum on the topic in the group</p> <p>Review on the topic</p> <p>Share material on the topic</p>

				Doubts clarification (10 min)	
4.	Using Bound properties	To understand the concept of Using Bound properties	<p>Video Link : https://www.youtube.com/watch?v=eKEXH0pctJg</p> <p>Text Book : Pdf (e-book) Upload</p> <p>Web Link : https://www.cs.auckland.ac.nz/references/java/java1.5/tutorial/java/beans/properties/bound.html</p>	<p>Revise previous class – (5 mins)</p> <p>Asking Questions on previous class randomly (5 Mins)</p> <p>PPT presentation/class (30 min)</p> <p>Doubts clarification (10 min)</p>	<p>Discussion Forum on the topic in the group</p> <p>Review on the topic</p> <p>Share material on the topic</p>
5.	Bean Info Interface	To understand the concept of Bean Info Interface	<p>Video Link : https://www.youtube.com/watch?v=ab4GtglQfrA</p> <p>Text Book : Pdf (e-book) Upload</p> <p>Web Link : https://docs.oracle.com/javase/7/docs/api/java/beans/BeanInfo.html#:~:text=public%20interface%20BeanInfo,%20etc%20of%20their%20bean.</p>	<p>Revise previous class – (5 mins)</p> <p>Asking Questions on previous class randomly (5 Mins)</p> <p>PPT presentation/class (30 min)</p> <p>Doubts clarification (10 min)</p>	<p>Discussion Forum on the topic in the group</p> <p>Review on the topic</p> <p>Share material on the topic</p>
6.	Constrained properties Persistence,	To understand the concept of Constrained properties Persistence,	<p>Video Link : https://www.youtube.com/watch?v=mtYBBInIIE8</p> <p>Text Book : Pdf (e-book) Upload</p>	<p>Revise previous class – (5 mins)</p> <p>Asking Questions on previous class randomly (5 Mins)</p> <p>PPT presentation/class</p>	<p>Discussion Forum on the topic in the group</p> <p>Review on the topic</p> <p>Share material on the topic</p>

				(30 min) Doubts clarification (10 min)	
7.	Customizers	To understand the concept of Customizers	<p>Video Link : https://www.youtube.com/watch?v=r78gogIVCHw</p> <p>Text Book : Pdf (e-book) Upload</p> <p>Web Link : http://www.iitk.ac.in/sc101/05Aug/tutorial/javabeans/customization/index.html</p>	<p>Revise previous class – (5 mins)</p> <p>Asking Questions on previous class randomly (5 Mins)</p> <p>PPT presentation/class (30 min)</p> <p>Doubts clarification (10 min)</p>	<p>Discussion Forum on the topic in the group</p> <p>Review on the topic</p> <p>Share material on the topic</p>
8.	Java Beans API	To understand the concept of Java Beans API	<p>Video Link : Java Beans API https://www.youtube.com/watch?v=Wju_0Sd_hcw</p> <p>Text Book : Pdf (e-book) Upload</p> <p>Web Link : http://www.brainkart.com/article/The-Java-Beans-API_10771/</p>	<p>Revise previous class – (5 mins)</p> <p>Asking Questions on previous class randomly (5 Mins)</p> <p>PPT presentation/class (30 min)</p> <p>Doubts clarification (10 min)</p>	<p>Discussion Forum on the topic in the group</p> <p>Review on the topic</p> <p>Share material on the topic</p>
9.	Java Beans API Examples	To understand the Java Beans API	<p>Video Link : Java Beans API https://www.youtube.com/watch?v=Wju_0Sd_hcw</p> <p>Text Book : Pdf (e-book) Upload</p> <p>Web Link :</p>	<p>Revise previous class – (5 mins)</p> <p>Asking Questions on previous class randomly (5 Mins)</p>	<p>Discussion Forum on the topic in the group</p> <p>Review on the topic</p> <p>Share material</p>

			http://www.brainkart.com/article/The-Java-Beans-API_10771/	PPT presentation/class (30 min) Doubts clarification (10 min)	on the topic
10.	Revising the Concepts in unit-2 Completely	To Revise all the concepts of unit-2	Refer the previous Links of all the concepts in unit-2	Revise previous class – (5 mins) Asking Questions on previous class randomly (5 Mins) PPT presentation (20 min) Example (15 min) Doubts clarification (10 min)	Discussion Forum on the topic in the group Review on the topic Share material on the topic Assignment – 2 Quiz-2

UNIT – 3 : SERVLETS

[Total Classes : 11]

Activity:

1	Factual	Reading Prerequisite concepts- Servlets Programs Videos & demo on Servlets, Referring the content on the Internet
2	Conceptual	Video Lectures On Servlets NPTEL Videos Links from the Internet Solved Examples from Internet
3	Procedural	Refer to text book content Understanding the Servlets Understanding the Environment & Procedure Syntax with examples(simple to complex)

4	Applied	Running and Executing Servlets Programs Implementing Programs on Servlets Assignments Quiz etc...
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Activity / Schedule of UNIT-3 :

Pre-Class : Videos, E-books, Web links, Case Studies etc...

In-Class : Explanation on concept, discussion, Poll, doubts clarification, PPT, Demo etc..

Post-Class : Discussion Forum, Review on topic, Assessment, Quiz, Notes etc....

CLASS SL NO	CONCEPT	OBJECTIVES	PRE-CLASS	IN-CLASS	POST-CLASS
1.	Introduction to Servlets	To introduce The concept Servlets	Video Link : https://www.youtube.com/watch?v=CRvcm7GKrF0 Text Book : Pdf (e-book) Upload Web Link : https://www.geeksforgeeks.org/introduction-java-servlets/	Discussion on pre-requisites (10 Min) PPT presentation/Class/demo (35 Min) Summary (5min) Doubts clarification (10 min)	Discussion Forum on the topic in the group Review on the topic Share material on the topic
2.	Lifecycle of a Servlet,	To introduce The concept of Lifecycle of a Servlet,	Video Link : https://www.youtube.com/watch?v=RJYxr7ThD00 Text Book : Pdf (e-book) Upload Web Link : https://www.tutorialspoint.com/servlets/servlets-life-cycle.htm	Discussion on pre-requisites (10 Min) PPT presentation/Class/demo (35 Min) Summary (5min) Doubts clarification (10 min)	Discussion Forum on the topic in the group Review on the topic Share material on the topic
3.	JSDK The Servlet API	To introduce The concept of JSDK The Servlet API	Video Link : https://www.youtube.com/watch?v=8CYHG8D51r0&list=PLkNMegzx26YYrR2GEOztA9eDX2UUod05F	Discussion on pre-requisites (10 Min) PPT	Discussion Forum on the topic in the group

			<p>Text Book : Pdf (e-book) Upload</p> <p>Web Link : https://www.javatpoint.com/servlet-api</p>	<p>presentation/Classes/demo (35 Min)</p> <p>Summary (5min)</p> <p>Doubts clarification (10 min)</p>	<p>Review on the topic</p> <p>Share material on the topic</p>
4.	The javax.servelet Package,	To introduce the concept of The javax.servelet Package,	<p>Video Link : https://www.youtube.com/watch?v=ji52WliXgrs</p> <p>Text Book : Pdf (e-book) Upload</p> <p>Web Link : https://docstore.mik.ua/oreilly/java-ent/jenut/ch25_01.htm</p>	<p>Discussion on pre-requisites (10 Min)</p> <p>PPT presentation/Classes/demo (35 Min)</p> <p>Summary (5min)</p> <p>Doubts clarification (10 min)</p>	<p>Discussion Forum on the topic in the group</p> <p>Review on the topic</p> <p>Share material on the topic</p>
5.	Reading Servelet parameters,	To introduce the concept of Reading Servelet parameters,	<p>Video Link : https://www.youtube.com/watch?v=5inXlg9Qymw</p> <p>Text Book : Pdf (e-book) Upload</p> <p>Web Link : http://www.brainkart.com/article/Reading-Servlet-Parameters_10780/</p>	<p>Discussion on pre-requisites (10 Min)</p> <p>PPT presentation/Classes/demo (35 Min)</p> <p>Summary (5min)</p> <p>Doubts clarification (10 min)</p>	<p>Discussion Forum on the topic in the group</p> <p>Review on the topic</p> <p>Share material on the topic</p>
6.	Reading Initialization parameters.	To understand the concept of Reading Initialization parameters.	<p>Video Link : https://www.youtube.com/watch?v=8cS_2GI Rlvk</p> <p>Text Book : Pdf (e-book) Upload</p> <p>Web Link : https://docs.roguewave.com/hydraexpress/4.7.0/html/rwfservletug/6-7.html</p>	<p>Discussion on pre-requisites (10 Min)</p> <p>PPT presentation/Classes/demo (35 Min)</p> <p>Summary (5min)</p> <p>Doubts clarification (10 min)</p>	<p>Discussion Forum on the topic in the group</p> <p>Review on the topic</p> <p>Share material on the topic</p>

7.	The javax.servelet HTTP package	To demonstrate The javax.servelet HTTP package	<p>Video Link : https://www.youtube.com/watch?v=E2eViODDSnU</p> <p>Text Book : Pdf (e-book) Upload</p> <p>Web Link : https://tomcat.apache.org/tomcat-5.5-doc/servletapi/javax/servlet/http/package-summary.html</p>	<p>Discussion on pre-requisites (10 Min)</p> <p>PPT presentation/Classes/demo (35 Min)</p> <p>Summary (5min)</p> <p>Doubts clarification (10 min)</p>	<p>Discussion Forum on the topic in the group</p> <p>Review on the topic</p> <p>Share material on the topic</p>
8.	Handling Http Request & Responses	To demonstrate Handling Http Request & Responses	<p>Video Link : https://www.youtube.com/watch?v=Xls8u42p1Ts</p> <p>Text Book : Pdf (e-book) Upload</p> <p>Web Link : http://www.brainkart.com/article/Handling-HTTP-Requests-and-Responses_10782/#:~:text=The%20HttpServlet%20class%20provides%20specialized,%20C%20and%20doTrace(%20).</p>	<p>Discussion on pre-requisites (10 Min)</p> <p>PPT presentation/Classes/demo (35 Min)</p> <p>Summary (5min)</p> <p>Doubts clarification (10 min)</p>	<p>Discussion Forum on the topic in the group</p> <p>Review on the topic</p> <p>Share material on the topic</p>
9.	Using Cookies-Session Tracking	To demonstrate Using Cookies-Session Tracking	<p>Video Link : https://www.youtube.com/watch?v=5SIJnF7hqak</p> <p>Text Book : Pdf (e-book) Upload</p> <p>Web Link : https://www.javatpoint.com/session-tracking-in-servlets</p>	<p>Discussion on pre-requisites (10 Min)</p> <p>PPT presentation/Classes/demo (35 Min)</p> <p>Summary (5min)</p> <p>Doubts clarification (10 min)</p>	<p>Discussion Forum on the topic in the group</p> <p>Review on the topic</p> <p>Share material on the topic</p>
10.	servlet chaining Security Issues.	To Introduce the concept of servlet chaining Security Issues.	<p>Video Link : https://www.youtube.com/watch?v=Q4iYMRfm9kI</p> <p>Text Book : Pdf (e-</p>	<p>Discussion on pre-requisites (10 Min)</p> <p>PPT presentation/Classes</p>	<p>Discussion Forum on the topic in the group</p> <p>Review on the</p>

			book) Upload Web Link : http://www.pskills.in/servlet/servlet-chaining.jsp	s/demo (35 Min) Summary (5min) Doubts clarification (10 min)	topic Share material on the topic
11.	Revising the Concepts in unit-3 Completely	To Revise all the concepts of unit-3	Refer the previous Links of all the concepts in unit-3	Revise previous class – (5 mins) Asking Questions on previous class randomly (5 Mins) PPT presentation (20 min) Example (15 min) Doubts clarification (10 min)	Discussion Forum on the topic in the group Review on the topic Share material on the topic Assignment – 3 Quiz-3

UNIT – 4 : JAVA SERVER PAGES (JSP)

[Total Classes : 10]

Activity:

1	Factual	Reading Prerequisite concepts- JSP Videos & demo on, JSP Referring the content on the Internet
2	Conceptual	Video Lectures On JSP NPTEL Videos Links from the Internet Solved Examples from Internet
3	Procedural	Refer to text book content and Examples, Notations Understanding the JSP Syntax with examples(simple to complex)
4	Applied	Running and Executing JSP sample codes Implementing Programs on JSP

		Assignments Quiz etc...
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Activity / Schedule of UNIT-4 :

Pre-Class : Videos, E-books, Web links, Case Studies etc...

In-Class : Explanation on concept, discussion, Poll, doubts clarification, PPT, Demo etc..

Post-Class : Discussion Forum, Review on topic, Assessment, Quiz, Notes etc....

CLASS SL NO	CONCEPT	OBJECTIVES	PRE-CLASS	IN-CLASS	POST-CLASS
1.	Introduction to JSP	To introduce The Introduction to JSP	<p>Video Link : https://www.youtube.com/watch?v=7wJ4BqPxqZY</p> <p>Text Book : Pdf (e-book) Upload</p> <p>Web Link : https://www.geeksforgeeks.org/introduction-to-jsp/</p>	<p>Discussion on pre-requisites (10 Min)</p> <p>PPT presentation/Classes/demo (35 Min)</p> <p>Summary (5min)</p> <p>Doubts clarification (10 min)</p>	<p>Discussion Forum on the topic in the group</p> <p>Review on the topic</p> <p>Share material on the topic</p>
2.	The Problem with Servlet	To Introduce the concept of The Problem with Servlet	<p>Video Link : https://www.youtube.com/watch?v=A3x-Fs7UsEc</p> <p>Text Book : Pdf (e-book) Upload</p> <p>Web Link : https://www.geeksforgeeks.org/difference-between-servlet-and-jsp/</p>	<p>Discussion on pre-requisites (10 Min)</p> <p>PPT presentation/Classes/demo (35 Min)</p> <p>Summary (5min)</p> <p>Doubts clarification (10 min)</p>	<p>Discussion Forum on the topic in the group</p> <p>Review on the topic</p> <p>Share material on the topic</p>

3.	The Anatomy of a JSP Page	To Introduce the concept of The Anatomy of a JSP Page	<p>Video Link : https://www.youtube.com/watch?v=KR5xHmgF1fo</p> <p>Text Book : Pdf (e-book) Upload</p> <p>Web Link : https://www.javatpoint.com/jsp-tutorial</p>	<p>Discussion on pre-requisites (10 Min)</p> <p>PPT presentation/Classes/demo (35 Min)</p> <p>Summary (5min)</p> <p>Doubts clarification (10 min)</p>	<p>Discussion Forum on the topic in the group</p> <p>Review on the topic</p> <p>Share material on the topic</p>
4.	JSP Processing	To Introduce the concept of JSP Processing	<p>Video Link : youtube.com/watch?v=49ltnkFjayk</p> <p>Text Book : Pdf (e-book) Upload</p> <p>Web Link : http://www.c4learn.com/java/jsp/jsp-processing-architecture/</p>	<p>Discussion on pre-requisites (10 Min)</p> <p>PPT presentation/Classes/demo (35 Min)</p> <p>Summary (5min)</p> <p>Doubts clarification (10 min)</p>	<p>Discussion Forum on the topic in the group</p> <p>Review on the topic</p> <p>Share material on the topic</p>
5.	JSP Application Design with MVC Setting Up and JSP Environment	To Introduce the concept of JSP Application Design with MVC Setting Up and JSP Environment	<p>Video Link : https://www.youtube.com/watch?v=2Qgp_Cv_4V8</p> <p>Text Book : Pdf (e-book) Upload</p> <p>Web Link : https://www.cs.rit.edu/~rlaz/cs2-20082/slides/WrapperClasses.pdf</p>	<p>Discussion on pre-requisites (10 Min)</p> <p>PPT presentation/Classes/demo (35 Min)</p> <p>Summary (5min)</p> <p>Doubts clarification (10 min)</p>	<p>Discussion Forum on the topic in the group</p> <p>Review on the topic</p> <p>Share material on the topic</p>

<p>6.</p>	<p>JSP Application Design with MVC Setting Up and JSP Environment (Contd...)</p>	<p>To Introduce the concept of JSP Application Design with MVC Setting Up and JSP Environment</p>	<p>Video Link : https://www.youtube.com/watch?v=2Qgp_Cv_4V8 Text Book : Pdf (e-book) Upload Web Link : https://www.cs.rit.edu/~rlaz/cs-20082/slides/WrapperClasses.pdf</p>	<p>Discussion on pre-requisites (10 Min) PPT presentation/Class/demo (35 Min) Summary (5min) Doubts clarification (10 min)</p>	<p>Discussion Forum on the topic in the group Review on the topic Share material on the topic</p>
<p>7.</p>	<p>Installing the Java Software Development Kit, Tomcat Server & Testing Tomcat</p>	<p>To Introduce the concept of Installing the Java Software Development Kit, Tomcat Server & Testing Tomcat</p>	<p>Video Link : https://www.youtube.com/watch?v=K4ZPCwtmV1Q Text Book : Pdf (e-book) Upload Web Link : https://users.cs.fiu.edu/~downeyt/cgs4825/tomcat-install.html</p>	<p>Discussion on pre-requisites (10 Min) PPT presentation/Class/demo (35 Min) Summary (5min) Doubts clarification (10 min)</p>	<p>Discussion Forum on the topic in the group Review on the topic Share material on the topic</p>
<p>8.</p>	<p>Installing the Java Software Development Kit, Tomcat Server & Testing Tomcat (Contd....)</p>	<p>To Introduce the concept of Installing the Java Software Development Kit, Tomcat Server & Testing Tomcat</p>	<p>Video Link : https://www.youtube.com/watch?v=K4ZPCwtmV1Q Text Book : Pdf (e-book) Upload Web Link : https://users.cs.fiu.edu/~downeyt/cgs4825/tomcat-install.html</p>	<p>Discussion on pre-requisites (10 Min) PPT presentation/Class/demo (35 Min) Summary (5min) Doubts clarification (10 min)</p>	<p>Discussion Forum on the topic in the group Review on the topic Share material on the topic</p>

9.	Installing the Java Software Development Kit, Tomcat Server & Testing Tomcat (Contd....)	To Introduce the concept of Installing the Java Software Development Kit, Tomcat Server & Testing Tomcat	Video Link : https://www.youtube.com/watch?v=K4ZPCwtmV1Q Text Book : Pdf (e-book) Upload Web Link : https://users.cs.fiu.edu/~downeyt/cgs4825/tomcat-install.html	Discussion on pre-requisites (10 Min) PPT presentation/Class/demo (35 Min) Summary (5min) Doubts clarification (10 min)	Discussion Forum on the topic in the group Review on the topic Share material on the topic
10.	Revising the Concepts in unit-4 Completely	To Revise all the concepts of unit-4	Refer the previous Links of all the concepts in unit-4	Revise previous class – (5 mins) Asking Questions on previous class randomly (5 Mins) PPT presentation (20 min) Example (15 min) Doubts clarification (10 min)	Discussion Forum on the topic in the group Review on the topic Share material on the topic Assignment – 4 Quiz-4

UNIT – 5 : JSP APPLICATION DEVELOPMENT

[Total Classes : 12]

Activity:

1	Factual	Reading Prerequisite concepts- JSP Application Development Videos & demo on, JSP Application Development Referring the content on the Internet
2	Conceptual	Video Lectures On JSP Application Development NPTEL Videos Links from the Internet Solved Prog Examples from Internet

3	Procedural	Refer to text book content and Examples, Notations Understanding the JSP Application Development Syntax with examples(simple to complex)
4	Applied	Running and Executing JSP Application Development sample codes Implementing Programs on PIG Latin Assignments Quiz etc...

Activity / Schedule of UNIT- 5 :

Pre-Class : Videos, E-books, Web links, Case Studies etc...

In-Class : Explanation on concept, discussion, Poll, doubts clarification, PPT, Demo etc..

Post-Class : Discussion Forum, Review on topic, Assessment, Quiz, Notes etc....

CLASS SL NO	CONCEPT	OBJECTIVES	PRE-CLASS	IN-CLASS	POST-CLASS
1.	Generating Dynamic Content	To introduce The concept of Generating Dynamic Content	<p>Video Link : https://www.youtube.com/watch?v=ipR6xq3ZjII</p> <p>Text Book : Pdf (e-book) Upload</p> <p>Web Link : http://www.inf.fu-berlin.de/lehre/SS03/19560-P/Docs/JWSDP/tutorial/doc/JSPIntro7.html</p>	<p>Discussion on pre-requisites (10 Min)</p> <p>PPT presentation/Classes/demo (35 Min)</p> <p>Summary (5min)</p> <p>Doubts clarification (10 min)</p>	<p>Discussion Forum on the topic in the group</p> <p>Review on the topic</p> <p>Share material on the topic</p>

2.	Using Scripting Elements	To introduce The concept of Using Scripting Elements	<p>Video Link : https://www.youtube.com/watch?v=3_mDKrdbSO4</p> <p>Text Book : Pdf (e-book) Upload</p> <p>Web Link : https://www.studytonight.com/jsp/jsp-scripting-element.php</p>	<p>Discussion on pre-requisites (10 Min)</p> <p>PPT presentation/Class/demo (35 Min)</p> <p>Summary (5min)</p> <p>Doubts clarification (10 min)</p>	<p>Discussion Forum on the topic in the group</p> <p>Review on the topic</p> <p>Share material on the topic</p>
3.	Implicit JSP Objects	To introduce The concept of Implicit JSP Objects	<p>Video Link : https://www.youtube.com/watch?v=kpUg6bgIMRs</p> <p>Text Book : Pdf (e-book) Upload</p> <p>Web Link : https://www.guru99.com/jsp-implicit-objects.html</p>	<p>Discussion on pre-requisites (10 Min)</p> <p>PPT presentation/Class/demo (35 Min)</p> <p>Summary (5min)</p> <p>Doubts clarification (10 min)</p>	<p>Discussion Forum on the topic in the group</p> <p>Review on the topic</p> <p>Share material on the topic</p>
4.	Conditional Processing – Displaying Values Using an Expression to Set an Attribute	To introduce The concept Conditional Processing – Displaying Values Using an Expression to Set an Attribute	<p>Video Link : https://www.youtube.com/watch?v=SOjCDSazRCw</p> <p>Text Book : Pdf (e-book) Upload</p> <p>Web Link : https://examples.javacodegeeks.com/enterprise-java/jsp/conditional-content-in-jsp-page/</p>	<p>Discussion on pre-requisites (10 Min)</p> <p>PPT presentation/Class/demo (35 Min)</p> <p>Summary (5min)</p> <p>Doubts clarification (10 min)</p>	<p>Discussion Forum on the topic in the group</p> <p>Review on the topic</p> <p>Share material on the topic</p>

5.	Conditional Processing – Displaying Values Using an Expression to Set an Attribute (Contd...)	To introduce The concept Conditional Processing – Displaying Values Using an Expression to Set an Attribute	Video Link : https://www.youtube.com/watch?v=SOjCDSazRCw Text Book : Pdf (e-book) Upload Web Link : https://examples.javacodegeeks.com/enterprise-java/jsp/conditional-content-in-jsp-page/	Discussion on pre-requisites (10 Min) PPT presentation/Classes/demo (35 Min) Summary (5min) Doubts clarification (10 min)	Discussion Forum on the topic in the group Review on the topic Share material on the topic
6.	Declaring Variables and Methods	To introduce The concept Declaring Variables and Methods Error Handling and Debugging Sharing Data Between JSP pages	Video Link : https://www.youtube.com/watch?v=d9tnSLagZG0 Text Book : Pdf (e-book) Upload Web Link : https://www.oreilly.com/library/view/java-server-pages/156592746X/ch06s06.html	Discussion on pre-requisites (10 Min) PPT presentation/Classes/demo (35 Min) Summary (5min) Doubts clarification (10 min)	Discussion Forum on the topic in the group Review on the topic Share material on the topic
7.	Error Handling and Debugging	To introduce The concept Error Handling and Debugging Sharing Data Between JSP pages	Video Link : https://www.youtube.com/watch?v=u45Q0ZbZmeU Text Book : Pdf (e-book) Upload Web Link : https://www.tutorialspoint.com/jsp/jsp_exception_handling.htm	Discussion on pre-requisites (10 Min) PPT presentation/Classes/demo (35 Min) Summary (5min) Doubts clarification (10 min)	Discussion Forum on the topic in the group Review on the topic Share material on the topic

8.	Sharing Data Between JSP pages	To introduce The concept of Sharing Data Between JSP pages	<p>Video Link : https://www.youtube.com/watch?v=YwIkAMwTYdc</p> <p>Text Book : Pdf (e-book) Upload</p> <p>Web Link : https://www.oreilly.com/library/view/java-server-pages/156592746X/ch14s03.html#:~:text=When%20you%20use%20servlets%20for,a%20JSP%20page%20for%20display.</p>	<p>Discussion on pre-requisites (10 Min)</p> <p>PPT presentation/Classes/demo (35 Min)</p> <p>Summary (5min)</p> <p>Doubts clarification (10 min)</p>	<p>Discussion Forum on the topic in the group</p> <p>Review on the topic</p> <p>Share material on the topic</p>
9.	Requests, and Users Passing Control and Data between Pages	To introduce The concept of Requests, and Users Passing Control and Data between Pages	<p>Video Link : https://www.youtube.com/watch?v=Omda1OjR9XQ</p> <p>Text Book : Pdf (e-book) Upload</p> <p>Web Link : https://www.oreilly.com/library/view/javaserver-pages-3rd/0596005636/ch10s01.html</p>	<p>Discussion on pre-requisites (10 Min)</p> <p>PPT presentation/Classes/demo (35 Min)</p> <p>Summary (5min)</p> <p>Doubts clarification (10 min)</p>	<p>Discussion Forum on the topic in the group</p> <p>Review on the topic</p> <p>Share material on the topic</p>
10.	Sharing Session and Application Data	To introduce The concept of Sharing Session and Application Data	<p>Video Link : https://www.youtube.com/watch?v=PzdMgGg8Je0</p> <p>Text Book : Pdf (e-book) Upload</p> <p>Web Link : https://www.oreilly.com/library/view/javaserver-pages-second/059600317X/ch10s02.html#:~:text=This%20type%20of%20information%2C%20available,information%20through%20the%20application%20scope.</p>	<p>Discussion on pre-requisites (10 Min)</p> <p>PPT presentation/Classes/demo (35 Min)</p> <p>Summary (5min)</p> <p>Doubts clarification (10 min)</p>	<p>Discussion Forum on the topic in the group</p> <p>Review on the topic</p> <p>Share material on the topic</p>

11.	Memory Usage Considerations	To introduce The concept of Memory Usage Considerations	<p>Video Link : https://www.youtube.com/watch?v=pD0Lm7qtFg4</p> <p>Text Book : Pdf (e-book) Upload</p> <p>Web Link : https://www.oreilly.com/library/view/java-server-pages/156592746X/ch08s05.html#:~:text=You%20should%20be%20aware%20that.of%20objects%20you%20place%20there.</p>	<p>Discussion on pre-requisites (10 Min)</p> <p>PPT presentation/Class/demo (35 Min)</p> <p>Summary (5min)</p> <p>Doubts clarification (10 min)</p>	<p>Discussion Forum on the topic in the group</p> <p>Review on the topic</p> <p>Share material on the topic</p>
12.	Revising the Concepts in unit-5 Completely	To Revise all the concepts of unit-5	Refer the previous Links of all the concepts in unit-5	<p>Revise previous class – (5 mins)</p> <p>Asking Questions on previous class randomly (5 Mins)</p> <p>PPT presentation (20 min)</p> <p>Example (15 min)</p> <p>Doubts clarification (10 min)</p>	<p>Discussion Forum on the topic in the group</p> <p>Review on the topic</p> <p>Share material on the topic</p> <p>Assignment – 5 Quiz-5</p>

UNIT – 6 : DATABASE ACCESS

[Total Classes : 13]

Activity:

1	Factual	<p>Reading Prerequisite concepts- Data base access</p> <p>Videos & demo on, Data base access</p> <p>Referring the content on the Internet</p>
2	Conceptual	<p>Video Lectures On Data base access</p> <p>NPTEL Videos</p> <p>Links from the Internet</p> <p>Solved Prog Examples from Internet</p>

3	Procedural	Refer to text book content and Examples, Notations Understanding the Data base access Syntax with examples(simple to complex)
4	Applied	Running and Executing Data base access sample codes Implementing Programs on Data base access Assignments Quiz etc...

Activity / Schedule of UNIT- 6 :

Pre-Class : Videos, E-books, Web links, Case Studies etc...

In-Class : Explanation on concept, discussion, Poll, doubts clarification, PPT, Demo etc..

Post-Class : Discussion Forum, Review on topic, Assessment, Quiz, Notes etc....

CLASS SL NO	CONCEPT	OBJECTIVES	PRE-CLASS	IN-CLASS	POST-CLASS
1.	Database Access Introduction	To introduce The concept of Database Access Introduction	Video Link : https://www.youtube.com/watch?v=eXiCza050ug Text Book : Pdf (e-book) Upload Web Link : https://www.tutorialspoint.com/jsp/jsp_database_access.htm	Discussion on pre-requisites (10 Min) PPT presentation/Class/demo (35 Min) Summary (5min) Doubts clarification (10 min)	Discussion Forum on the topic in the group Review on the topic Share material on the topic
2.	Database Programming using JDBC	To introduce The concept Database Programming using JDBC	Video Link : https://www.youtube.com/watch?v=IGNgS00nz_0 Text Book : Pdf (e-book) Upload Web Link : https://www3.ntu.edu.sg/home/ehchua/programming/java/JDBC_Basic.html	Discussion on pre-requisites (10 Min) PPT presentation/Class/demo (35 Min) Summary (5min) Doubts clarification (10 min)	Discussion Forum on the topic in the group Review on the topic Share material on the topic

3.	Studying Javax.sql. package	To introduce The concept of Studying Javax.sql. package	<p>Video Link : https://www.youtube.com/watch?v=OuBUUKQfBYM</p> <p>Text Book : Pdf (e-book) Upload</p> <p>Web Link : https://www.tutorialspoint.com/hive/hive_introduction.htm</p>	<p>Discussion on pre-requisites (10 Min)</p> <p>PPT presentation/Class/demo (35 Min)</p> <p>Summary (5min)</p> <p>Doubts clarification (10 min)</p>	<p>Discussion Forum on the topic in the group</p> <p>Review on the topic</p> <p>Share material on the topic</p>
4.	Accessing MySQL database	To introduce The concept of Accessing MySQL database	<p>Video Link : https://www.youtube.com/watch?v=2HVKizgcfjo</p> <p>Text Book : Pdf (e-book) Upload</p> <p>Web Link : https://docs.cs.cf.ac.uk/notes/accessing-mysql-from-windows/</p>	<p>Discussion on pre-requisites (10 Min)</p> <p>PPT presentation/Class/demo (35 Min)</p> <p>Summary (5min)</p> <p>Doubts clarification (10 min)</p>	<p>Discussion Forum on the topic in the group</p> <p>Review on the topic</p> <p>Share material on the topic</p>
5.	Accessing MS Access database	To introduce The concept Accessing MS Access database	<p>Video Link : https://www.youtube.com/watch?v=pbtoCktlX1Y</p> <p>Text Book : Pdf (e-book) Upload</p> <p>Web Link : https://wiki.documentfoundation.org/Faq/Bas e/How_to_connect_to_a_Microsoft_Access_database</p>	<p>Discussion on pre-requisites (10 Min)</p> <p>PPT presentation/Class/demo (35 Min)</p> <p>Summary (5min)</p> <p>Doubts clarification (10 min)</p>	<p>Discussion Forum on the topic in the group</p> <p>Review on the topic</p> <p>Share material on the topic</p>

6.	Accessing a Database from a JSP Page Application	To introduce The concept Of Accessing a Database from a JSP Page Application	<p>Video Link : https://www.youtube.com/watch?v=DzYyzmP4m5c</p> <p>Text Book : Pdf (e-book) Upload</p> <p>Web Link : http://mrbool.com/jsp-database-access-how-to-access-database-from-a-jsp-page/30869</p>	<p>Discussion on pre-requisites (10 Min)</p> <p>PPT presentation/Classes/demo (35 Min)</p> <p>Summary (5min)</p> <p>Doubts clarification (10 min)</p>	<p>Discussion Forum on the topic in the group</p> <p>Review on the topic</p> <p>Share material on the topic</p>
7.	Accessing a Database from a JSP Page Application (Contd..)	To introduce The concept Of Accessing a Database from a JSP Page Application	<p>Video Link : https://www.youtube.com/watch?v=DzYyzmP4m5c</p> <p>Text Book : Pdf (e-book) Upload</p> <p>Web Link : http://mrbool.com/jsp-database-access-how-to-access-database-from-a-jsp-page/30869</p>	<p>Discussion on pre-requisites (10 Min)</p> <p>PPT presentation/Classes/demo (35 Min)</p> <p>Summary (5min)</p> <p>Doubts clarification (10 min)</p>	<p>Discussion Forum on the topic in the group</p> <p>Review on the topic</p> <p>Share material on the topic</p>
8.	Specific Database Actions Deploying JAVA Beans in a JSP Page	To introduce The concept Of Specific Database Actions Deploying JAVA Beans in a JSP Page	<p>Video Link : https://www.youtube.com/watch?v=MimosJ-ZzxU</p> <p>Text Book : Pdf (e-book) Upload</p> <p>Web Link : https://examples.javacodegeeks.com/enterprise-java/jsp/use-bean-in-jsp-page/</p>	<p>Discussion on pre-requisites (10 Min)</p> <p>PPT presentation/Classes/demo (35 Min)</p> <p>Summary (5min)</p> <p>Doubts clarification (10 min)</p>	<p>Discussion Forum on the topic in the group</p> <p>Review on the topic</p> <p>Share material on the topic</p>

9.	Introduction to struts framework.	To introduce The concept of Introduction to struts framework.	<p>Video Link : https://www.youtube.com/watch?v=pHCnEPMsBUY</p> <p>Text Book : Pdf (e-book) Upload</p> <p>Web Link : https://www.codejava.net/frameworks/struts/introduction-to-struts-2-framework</p>	<p>Discussion on pre-requisites (10 Min)</p> <p>PPT presentation/Class/demo (35 Min)</p> <p>Summary (5min)</p> <p>Doubts clarification (10 min)</p>	<p>Discussion Forum on the topic in the group</p> <p>Review on the topic</p> <p>Share material on the topic</p>
10.	Introduction to struts framework (Contd....).	To introduce The concept of Introduction to struts framework.	<p>Video Link : https://www.youtube.com/watch?v=pHCnEPMsBUY</p> <p>Text Book : Pdf (e-book) Upload</p> <p>Web Link : https://www.codejava.net/frameworks/struts/introduction-to-struts-2-framework</p>	<p>Discussion on pre-requisites (10 Min)</p> <p>PPT presentation/Class/demo (35 Min)</p> <p>Summary (5min)</p> <p>Doubts clarification (10 min)</p>	<p>Discussion Forum on the topic in the group</p> <p>Review on the topic</p> <p>Share material on the topic</p>
11.	Revising the Concepts in unit-6 Completely	To Revise all the concepts of unit-6	Refer the previous Links of all the concepts in unit-6	<p>Revise previous class – (5 mins)</p> <p>Asking Questions on previous class randomly (5 Mins)</p> <p>PPT presentation (20 min)</p> <p>Example (15 min)</p> <p>Doubts clarification (10 min)</p>	<p>Discussion Forum on the topic in the group</p> <p>Review on the topic</p> <p>Share material on the topic</p> <p>Assignment – 6 Quiz-6</p>

TOTAL CLASSES : 65

Faculty Signature

HOD