

# Bhoj Reddy Engineering College for Women: Hyderabad

## Department of Information Technology

Lesson plan of faculty member for the academic year 2016–17

Class: IV B Tech

Branch-Section: IT-B

Semester: I

Subject: Design patterns

Lectures per week: 4+1 (Tutorial)

Lecture Number	Topics to be covered	Date (s)
<b>UNIT – I</b>		
1	Introduction, what is Design Pattern?	13 June 2016
2	Elements of Design Patterns	16 June 2016
3	Design pattern in Smalltalk MVC	17 June 2016
4	Tutorial ( G2, G3, G1 ) - Design pattern and its elements	13, 14, 17 June 2016
5	Describing Design Patterns	18 June 2016
6	The Catalog Of Design Patterns	20 June 2016
7	Organizing The Catalog	23 June 2016
8	How Design Patterns Solve Design Problems	24 June 2016
9	Tutorial ( G2, G3, G1 ) - Catalog Of Design Patterns	20, 21, 24 June 2016
10	Specifying Object Implementations	25 June 2016
11	Relating Run-time And Compile-Time Structures	27 June 2016
12	How to Select and Use a Design Pattern?	30 June 2016
<b>UNIT-II</b>		
13	A Case Study : Designing a Document Editor.	1 July 2016
14	Tutorial ( G2, G3, G1 ) - Specifying Object Implementations	27, 28 June, 1 July 2016
15	Document Structure	2 July 2016
16	Formatting, Embellishing the User Interface	4 July 2016
17	Tutorial ( G2, G3, G1 ) - Designing a Document Editor	4, 5, 8 July 2016
18	Supporting Multiple Look &Feel Standards	8 July 2016
19	Supporting Multiple Window Systems	9 July 2016
20	User Operations	11 July 2016
21	Spell check And Hyphenation	14 July 2016
22	Creational Patterns - Abstract Factory	15 July 2016
23	Tutorial ( G2, G3, G1 ) - Supporting Multiple Window System	11, 12, 15 July 2016
24	Builder	16 July 2016
25	Factory Method	18 July 2016
26	Prototype	21 July 2016
27	Singleton	22 July 2016
28	Tutorial ( G2, G3, G1 ) - Factory method	18, 19, 22 July 2016
29	Discussion Of Creational Patterns	23 July 2016
<b>UNIT-III</b>		
30	Structural Pattern Part-I: Adapter	25 July 2016
31	Implementation And Sample Code	28 July 2016
32	Bridge	29 July 2016
33	Tutorial ( G2, G3, G1 ) - Adapter Pattern	25, 26, 29 July 2016
34	Implementation And Sample Code	30 July 2016
35	Composite	4 August 2016
36	Implementation And Sample Code	5 August 2016
37	Tutorial ( G3, G1 ) - Bridge Pattern	2, 5 August 2016
38	Revision	6 July 2016
39	Structural Pattern Part-II: Decorator	18 August 2016
40	Implementation And Sample Code	19 August 2016
41	Tutorial ( G3, G1 ) - Composite Pattern	16, 19 August 2016
42	Facade	20 August 2016
43	Implementation And Sample Code	22 August 2016

44	Flyweight	26 August 2016
45	Tutorial ( G2, G3, G1 ) - Facade	22, 23, 26 August 2016
46	Implementation And Sample Code	27 August 2016
47	Proxy	29 August 2016
48	Implementation And Sample Code	1 September 2016
49	Revision	2 September 2016
50	Tutorial ( G2, G3, G1 ) - Flyweight and proxy	29, 30, August, 2 September 2016
<b>UNIT-IV</b>		
51	Behavioral Patterns Part I: Chain of Responsibility	3 September 2016
52	Implementation And Sample Code	8 September 2016
53	Command	9 September 2016
54	Tutorial ( G2, G3, G1 ) - Chain of Responsibility	6, 9 September 2016
55	Implementation And Sample Code	10 September 2016
56	Interpreter	15 September 2016
57	Implementation And Sample Code	16 September 2016
58	Tutorial ( G3, G1 ) - Command and Interpreter	13, 16 September 2016
59	Iterator	17 September 2016
60	Behavioral Patterns Part-II Mediator	19 September 2016
61	Memento	22 September 2016
62	Observer	23 September 2016
63	Tutorial ( G2, G3, G1 ) - Memento and Observer	19, 20, 23 September 2016
<b>UNIT-V</b>		
64	Behavioral Patterns Part II (Cont'd): State	24 September 2016
65	Strategy	26 September 2016
66	Tutorial ( G2, G3, G1 ) - State, Strategy	26, 27 September 2016
67	Template Method	29 September 2016
68	Visitor	1 October 2016
69	Tutorial ( G2, G3 ) - Template Method	3, 4 October 2016
70	Discussion on Design Patterns	3 October 2016
71	What to expect from design patterns, A Brief History	27 October 2016
72	The Pattern Community	28 October 2016
73	Tutorial ( G1 ) - Pattern Community	28 October 2016
74	An Invitation	29 October 2016
75	A Parting thought	31 October 2016
76	Tutorial ( G2, G3 ) -Pattern Community	31 October, 1 November 2016
77	Revision	3 November 2016

**Text books:**

1. Design Patterns by Erich Gamma, Person Education(covers all 5 units)
2. Head First Design Patterns by Eric Freeman-O'REILLY-SPD

Name and signature of the faculty: Asst Prof Safoora Fatima ----

Name and signature of Head of the Department: Mr. Srinivasa Rao G ----