



# KGiSL INSTITUTE OF TECHNOLOGY

(Affiliated to ANNA University, Chennai and Approved by AICTE, New Delhi)

Recognized by UGC, Accredited by NBA (B.Tech-IT)

KGiSL Campus, 365, Thudiyalur Road, Saravanampatti, Coimbatore – 641035



## INTERNAL QUALITY ASSURANCE CELL (IQAC)

### Implementation details of Innovative Teaching Practices

<b>Year / Semester / Section: III/VI/B</b>	<b>Degree &amp; Branch: B.E CSE</b>
<b>Course Code: CS8651</b>	<b>Course Name: Cryptography and Network Security</b>
<b>Unit: I</b>	<b>Topic: Classical encryption techniques: substitution techniques, transposition techniques, steganography</b>
<b>Activity Chosen: Animation</b>	
<b>Details of the Implementation:</b>	
Faculty explains the specific concepts/topic in the classroom/laboratory which includes the following	
<ol style="list-style-type: none"> <li>1. Define the purpose or Problem: Classical encryption techniques - To understand the basic encryption techniques like substitution and transposition.</li> <li>2. Animation Video URL: <a href="https://www.cryptool.org/en/cto/aes-animation">https://www.cryptool.org/en/cto/aes-animation</a></li> <li>3. Students will be able to understand better, on the concepts taught. From the animation video.</li> </ol>	
Faculty records their proceedings and measure students' progress before and after implementation	

PO	PO1	PO2	PO3		
<b>Relevance</b>	<b>3</b>	<b>2</b>	<b>2</b>		

**Images / Screenshot of the practice**

The slide shows two 4x4 grids. The left grid contains numbers: 4C, 6D, 73, 64; 6F, 20, 75, 6F; 72, 69, 6D, 6C; 65, 70, 20, 6F. The right grid contains letters: 2B, 28, AB, 09; 7E, AE, F7, CF; 15, D2, 15; 16, A6, 88.

**Images / Screenshot of the practice**

The screenshot shows the Cryptool-Online interface with a round key schedule table for Round 6 to Round 10. The table lists hexadecimal values for each round, such as Round 6: 87 EE 53 11, 17 28 C3 82, 28 C3 82 17, 5F 69 5F 41, 88 0B F9 00.

**Images / Screenshot of the practice**

The slide shows a round key schedule table with columns of hexadecimal values: 6B, 85, D3, F0; 40, 8A, CD; AD, D8, C4; BB, 91, 2C; 82, 31, B3; A0, FA, FE, 17; 88, 23, 2A; 54, A3, 6C; 2C, 39, 76; B1, 39, 05. Below the table, it says 'Round key Produced as round key 1 during the key schedule - see page 14'.

**Images / Screenshot of the practice**

The slide shows a mathematical operation: 2B 28 AB 09 A0 + 7E AE FF CF FA = 15 D2 15 4F FE. Below it, another operation is shown: 2B 7E 15 16 + 8A B4 EB 01 = 01 00 00 00. At the bottom, a table of hexadecimal values is shown: 02 04 08 10 20 40 80 1b 36, 00 00 00 00 00 00 00 00 00, 00 00 00 00 00 00 00 00 00, 00 00 00 00 00 00 00 00 00. The word 'Rcon' is also present.

**Benefit of the practice:**  
 Animation-based learning helps the students to understand how transposition and substitution techniques are used in classical encryption for converting a real text into a ciphertext. The usage of this animation helps the students to understand the subject better.



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### Implementation details of Innovative Teaching Practices

<b>Year / Semester / Section:</b> II/III/				<b>Degree &amp; Branch:</b> B.E CSE		
<b>Course Code:</b> CS8392				<b>Course Name:</b> Object Oriented Programming		
<b>Unit:</b> IV				<b>Topic:</b> Differences between multithreading and multitasking		
<b>Activity Chosen:</b> Animation						
<b>Details of the Implementation:</b>						
Faculty explains the specific concepts/topic in the classroom/laboratory which includes the following						
<ol style="list-style-type: none"> <li><b>Define the purpose or Problem:</b> Differences between multithreading and multitasking – To understand how multithreading and multitasking works for a given application.</li> <li><b>Animation Video URL:</b> <a href="https://www.youtube.com/watch?v=avFZb-PBSE">https://www.youtube.com/watch?v=avFZb -PBSE</a></li> <li>Students will understand the topic from the given animation video.</li> </ol>						
Faculty records their proceedings and measure students' progress before and after implementation						
PO	PO1	PO2	PO3			
<b>Relevance</b>	<b>3</b>	<b>2</b>	<b>2</b>			
<b>Images / Screenshot of the practice</b>			<b>Images / Screenshot of the practice</b>			
<b>Images / Screenshot of the practice</b>			<b>Images / Screenshot of the practice</b>			
<p>Every process has only one executor (by default) also known as thread. Which can execute only one task in the process at a time.</p>			<p>Multiple threads allows execution of multiple tasks in single process.</p>			
<b>Benefit of the practice:</b> Animation-based learning helps the students to understand the concept of multi-tasking and multi-threading to perform a given operation. Students can relate this concept to any given application. A better understanding of the subject will help them in their career.						



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## INTERNAL QUALITY ASSURANCE CELL (IQAC)

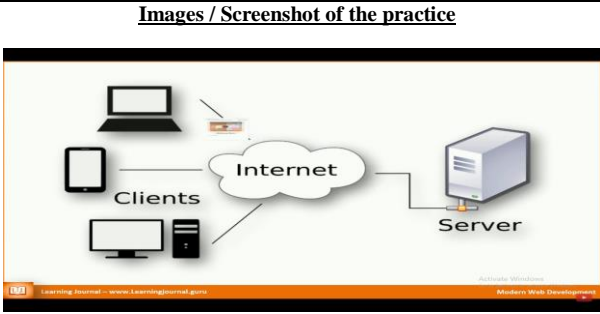
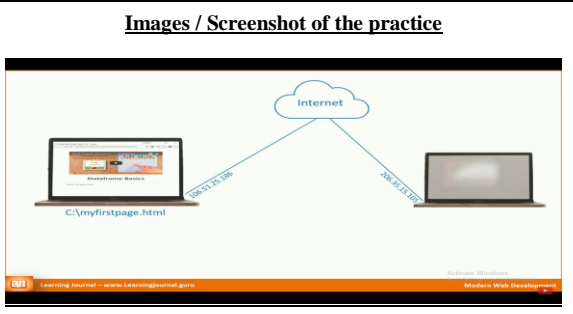
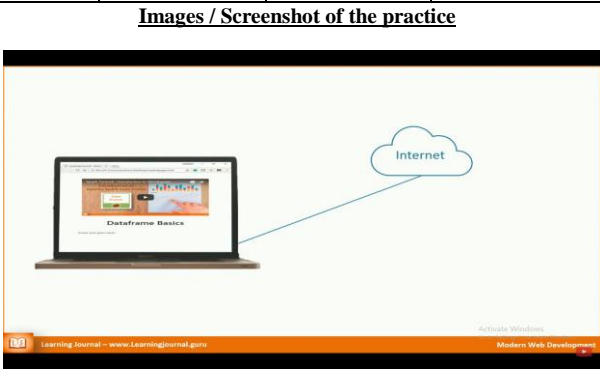
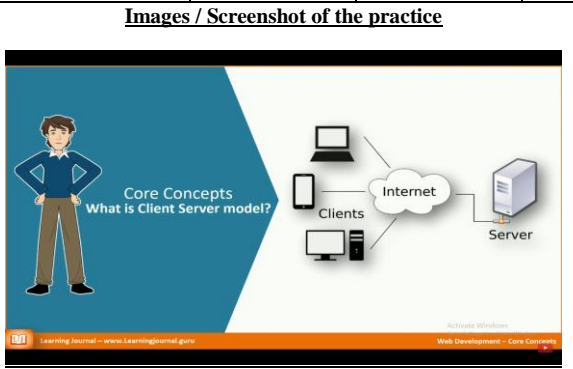
### Implementation details of Innovative Teaching Practices

<b>Year / Semester / Section: I/I</b>		<b>Degree &amp; Branch: B.E CSE</b>				
<b>Course Code:GE3171</b>		<b>Course Name: Problem Solving and Python Programming Lab</b>				
<b>Unit: -</b>		<b>Topic: Introduction to if, if-else and if-elif Conditional Statements</b>				
<b>Activity Chosen: Animation</b>						
<b>Details of the Implementation:</b>						
<ol style="list-style-type: none"> <li>Define the purpose or Problem: Usage of if, if-else and if-elif-else Conditional Statements for the given problem statement.</li> <li>Animation Video URL: <a href="https://www.youtube.com/watch?v=5KS70C-x5nc">https://www.youtube.com/watch?v=5KS70C-x5nc</a></li> <li>Students will understand the topic from the given animation video.</li> </ol>						
<b>PO</b>	<b>PO1</b>	<b>PO2</b>	<b>PO3</b>	<b>PO5</b>		
<b>Relevance</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>		
<b>Images / Screenshot of the practice</b>			<b>Images / Screenshot of the practice</b>			
<p><b>HOW TO WRITE-</b></p> <ul style="list-style-type: none"> <li>First, write if keyword.</li> <li>Specify your if Condition after that.</li> <li>Then you leave 4 space, or you press TAB.</li> <li>You are successfully inside IF statement.</li> </ul> <pre>if (condition):     ACTION</pre>			<p><b>ELSE STATEMENT-</b></p> <ul style="list-style-type: none"> <li>Written without (condition).</li> <li>else means anything except if / elif.</li> </ul> <pre>a = 99 if a &gt; 100:     print(a, "is greater than 100") else:     print(a, "is smaller than 100 ") &gt;&gt;&gt; 99 is smaller than 100</pre>			
<b>Images / Screenshot of the practice</b>			<b>Images / Screenshot of the practice</b>			
<p><b>ELIF STATEMENT-</b></p> <p>If you have many, if statements after one if, then you can use elif after elif and so on...</p> <pre>a = 3 if a == 3:     print("a is 3") elif a &gt; 3:     print('a is greater than 3') &gt;&gt;&gt; a is 3</pre>			<p><b>EXAMPLE-</b></p> <pre>a = 89 if a &gt; 100:     print(a, "is greater than 100") elif a == 99:     print(a, "is 99") else:     print(a, "is smaller than 100") &gt;&gt;&gt; 89 is small than 100</pre>			
<b>Benefit of the practice:</b>						
Animation-based learning helps the students to understand how to use Conditional Statements given problem statements. Students can relate this concept to any selection based concept. A better understanding of the subject will help them in their career.						

**INTERNAL QUALITY ASSURANCE CELL (IQAC)**

**Implementation details of Innovative Teaching Practices**

<b>Year / Semester / Section: III/VI/B</b>		<b>Degree &amp; Branch: B.E CSE</b>			
<b>Course Code: CS8651</b>		<b>Course Name: Internet Programming</b>			
<b>Unit: I</b>		<b>Topic: Client Server Model</b>			
<b>Activity Chosen: Animation</b>					
<b>Details of the Implementation:</b>					
Faculty explains the specific concepts/topic in the classroom/laboratory which includes the following					
<ol style="list-style-type: none"> <li>1. Define the purpose or Problem: Client Server Model – To understand how client and server communicated in web based application.</li> <li>2. Animation Video URL: <a href="https://www.youtube.com/watch?v=B8azMzrluHE">https://www.youtube.com/watch?v=B8azMzrluHE</a></li> <li>3. Students will understand the topic from the given animation video.</li> </ol>					
Faculty records their proceedings and measure students' progress before and after implementation					
<b>PO</b>	<b>PO1</b>	<b>PO2</b>	<b>PO3</b>		
<b>Relevance</b>	<b>3</b>	<b>2</b>	<b>2</b>		



**Benefit of the practice:** Animation-based learning helps the students to understand how client and server communicate to perform a given operation. Students can relate this concept to any web based application. A better understanding of the subject will help them in their career.