DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

BEST PRACTICES

1) Implementation of Mentor-Mentee concept: Enables focus on individual students, increasing the scope of giving guidance, counselling and monitoring for better improvement of each and every student.

2) Enhancement of Programming Language skills : The department organizes various workshops on emerging technologies amongst students for better career prospects and development of technical skills in the students.

3) Group Discussions: The students participate in mock interviews and group discussions to give them a sense of confidence and groom them towards professionalism.

4) Assignments: The best teaching practice-formative assessment, assignment design to foster student engagement and ownership.

5) Placement Oriented Training: Campus recruitment training (CRT) is given to the students from II year onwards to cater the needs of students for placements.

6) Organizing Workshops, Seminars & Guest Lectures: Reputed persons from software industry and academicia are invited to the campus to give expert talks on emerging technologies.

7) National Level Technical Festival: Fest is conducted every year to exhibit the technical and creative skills of the students which are organizing under our Technical and Professional Student Chapters like CSI and ISTE.

8) Internships: Internship is a system of on-the-job training provided for our students by real time environment of IT Industry. Internships provide opportunities for students to gain experience in their field, determine if they have an interest in a particular career.

TEACHING METHODS

1. Chalk and Talk
2. Presentations using projector
3. Video lectures
4. E-Learning

INNOVATIVE TEACHING LEARNING METHODS

The faculty members of CSE are using innovative methods of teaching to reach out to the minds of the students and win the hearts of the audience while doing so. While a few years ago, one would only see such innovative and effective teaching on the screen, today technology has given teachers across the world a number of tools to enhance teaching methods.

1. GROUP LEARNING

Group learning improves skills such as communication, listening, team work, peer support and leadership qualities. The students can maximize their own and each other's learning.

The challenging issues are:

1. Dividing groups
2. Group size
3. Assessment of individual and group
4. Allocation of time
5. Space and setup required

Constraints or limitations:

1. Time consuming
2. Students focus more on friendship or relationship than learning
3. Level of learning not the same

The knowledge acquired through group learning is higher than self learning. The problem solving skills of students are improved drastically. The slow and average learner started asking doubts.

1. Contribution by each member:

The member in the group who has skills better than others used to dominate the whole group, in such a case it was very difficult to make the student who is silent to participate.

Resources required:

The number of facilitators has to be increased, so that each and every student participation can be ensured by motivation.

2. Conflict between team members:

The differences between team members have to solve in the initial stages itself.

Resources required:

The facilitator need to spend time beyond group learning to solve issues between team members.

Group learning Implementation in CSE Department:

Course title : Data Base Management Systems

Name of the faculty: Dr.U.M.Fernandes Dimlo, Ch.Srilakshmi

Class: II year C Section

Academic Year : 2018-19

Semester : II

Topic : Entity Relationship Model Design

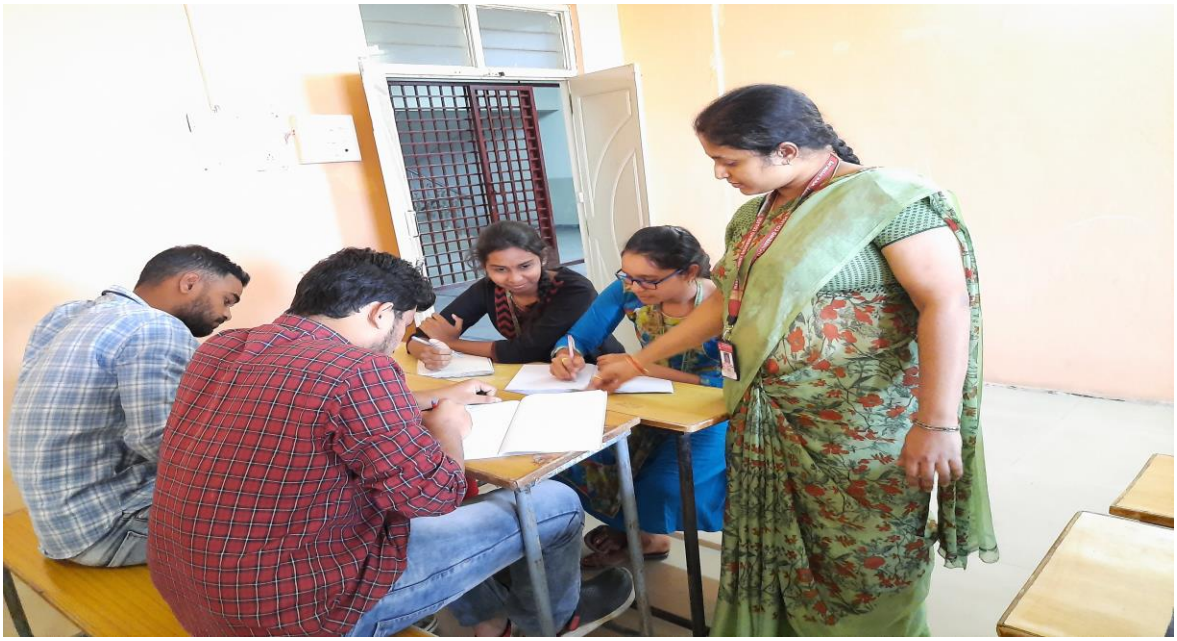
Procedure :

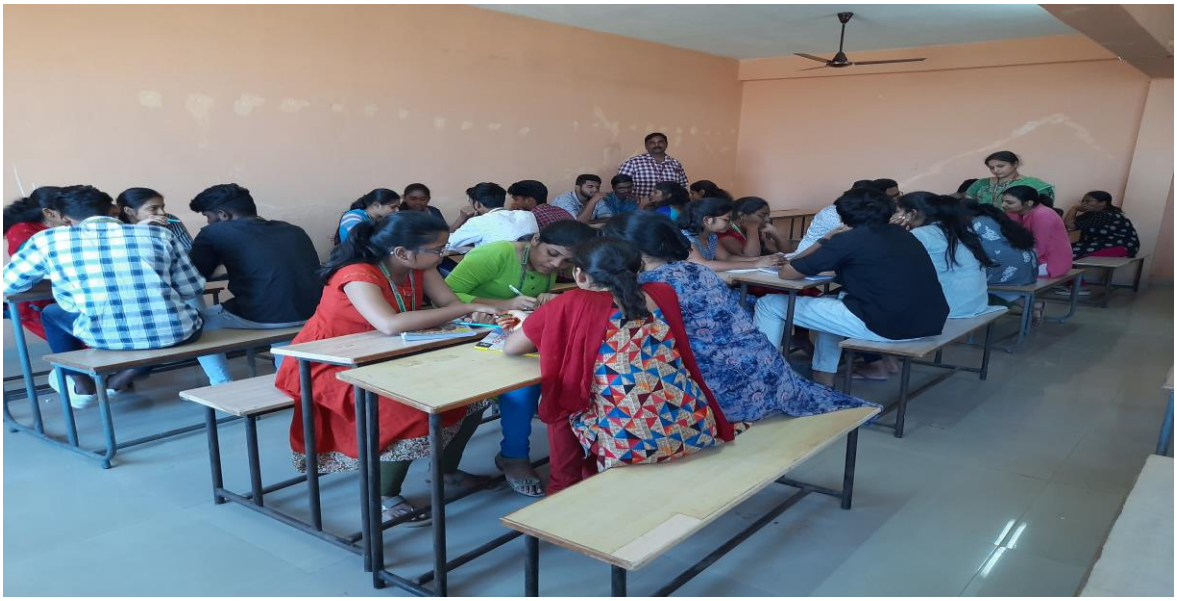
The class strength of 38 is divided into 10 groups where 7 groups of size 4 one group 2 groups of size 5. The groups are divided based on their learning ability such as fast learner, slow learner and average learner. Each group was given one case study from which they have to identify entities, attributes, relationship, types of relationship, keys, type of attributes and finally group should come up with entity relationship diagram.

Groups and Activity:

GROUP ID	REGISTER NUMBER	NAME OF THE STUDENTS	PROBLEM
1	17X01A05A1	ALETI YESHWANTH REDDY	Bus Reservation
	17X01A05D9	PALVAI NAVYA	
	17X01A05E1	SIDDHARTH RAJARAM GOVE	

	17X01A05A5	BOILLA VENKATA PRANEETH	
2	17X01A05A4	BINIT KUMAR PANDA	Banking
	17X01A05A2	ANKAM RANADEEP	
	17X01A05D7	SEERNAM VASANTHI	
	17X01A05D0	RAMAREDDY MEGHANA	
3	17X01A05D4	THAKUR SAI SHARAN SINGH	College admin system
	17X01A05C6	PALAKURTHI ARUN	
	17X01A05C9	PULLURI RAHULA	
	17X01A05C1	MOTHUKURI YASHWANTH KRISHNA	
4	17X01A05D6	Y TEJASWINI	Library
	17X01A05A9	DURGAM BHAVANI	
	17X01A05B2	GONA ABHINAY REDDY	
	17X01A05A6	BONAGIRI UMESHWAR	
5	17X01A05C5	PADIGELA VAGEESH	Hospital
	17X01A05C3	NAKKIRTHI SREEJA	
	17X01A05B6	KATREVUPALLI SAI KIRAN	
	17X01A05D1	REGULA SAI RADHA	
6	17X01A05C2	MUDUNURI RAMA DEVI	Sales Management System
	17X01A05C4	NAREDLA ROHITH	
	17X01A05D5	THATIKONDA AMANI	
	17X01A05B8	MANTRI BHAGYA SRI	
7	17X01A05C7	PASHAM PRUTHVI	Reality show Database
	17X01A05A3	BACHU BHAVANI	
	17X01A05B1	GOLAKOTI BHARGAVI	
	17X01A05B7	M ASHISH	
8	17X01A05B9	MANUKONDA VANI REDDY	Soccer Game Model
	17X01A05C0	MEDISHETTI SHILPA SHETTI	
	17X01A05C8	PODATHARAPU KALYAN YADAV	
	17X01A05B4	KANCHIMIREDDY ARCHANA	
	17X01A05A7	CHALLA SAIPRIYA	
9	17X01A05A8	DAYAL SWETHA	Online auction
	17X01A05B3	K RISHITHA VENKAT	
	17X01A05B5	KAREGAM SRAVANTHI	
	17X01A05D2	SAI REDDY ANVITHA	
	17X01A05D3	SUSHEEL YADAV	





2. **Group learning Implementation in CSE Department:**

Course title : Data Structures using C++

Name of the faculty: A.Sravanthi, A.Shoba Rani

Class: II year B Section

Academic Year : 2017-18

Semester : I

Topic : Trees (AVL , BST, Splay, 2-3, B-Tree, Red Black,B+ tree, Heap)

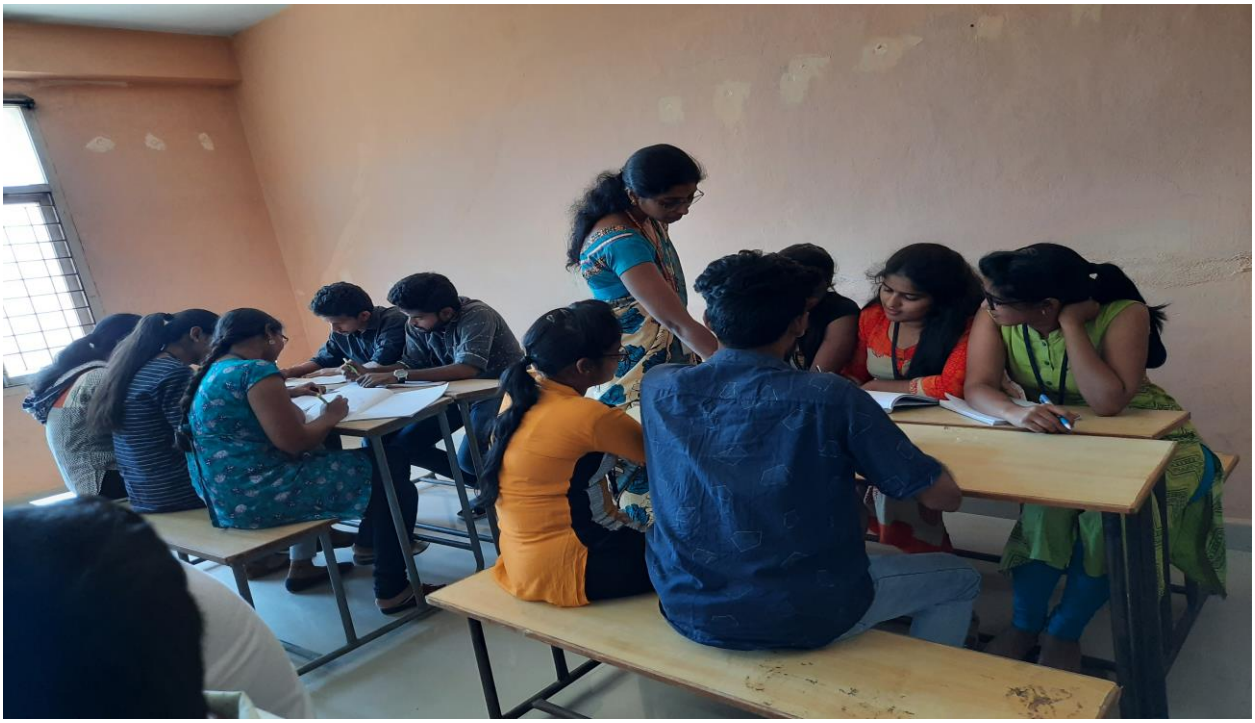
Procedure :

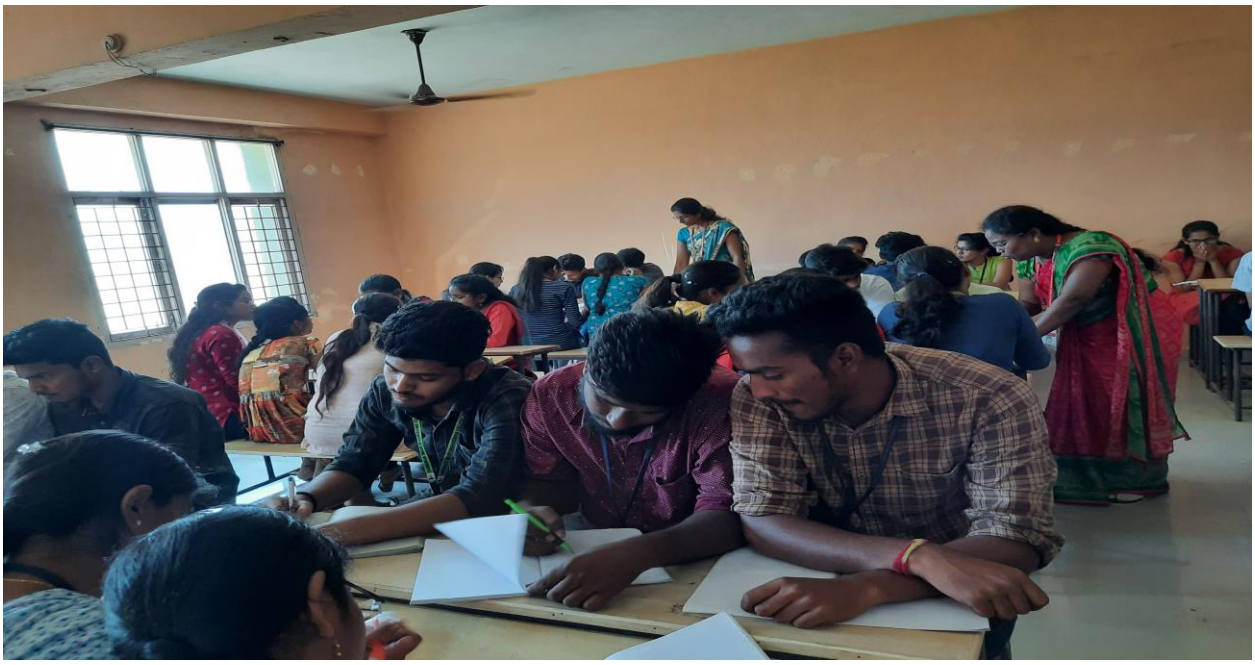
The class strength of 55 is divided into 11 groups of size 5. The groups are divided based on their learning ability such as fast learner, slow learner and average learnrer. Each group was given type of tree with set of elements to create, elements to insert, elements to be deleted and element to search.

Groups and Activity:

GROUP ID	REGISTER NUMBER	NAME OF THE STUDENTS	PROBLEM
1	16X01A0561	A HARSHITA	AVL
	16X01A0565	CH SAI KUMAR	
	16X01A0579	KATTA GAYATRI REDDY	
	16X01A0570	FAIZAN AHMAD	
	16X01A0592	N SHIVA RAM PRASAD	
2	16X01A0562	ANUGU SREEJA	BST
	16X01A0575	K VAMSHI	
	16X01A0586	KUNTOLLA AKANKSHA	
	16X01A0596	PADIGELA RAJASHEKHAR	
	16X01A05B0	SUSHMA BOLLEPALLY	
3	16X01A0571	GALLIPELLI SHARATH	SPLAY
	16X01A0568	CHINNERAPPAL NARESH	
	16X01A0567	CHINNAPAPANI SAI KUMAR GOUD	
	16X01A0585	KUDALI ASHISH RAO	
	16X01A0598	PARIKIPALLA RAJ KUMAR	
4	16X01A0573	JANGA JUHI MOUNIKA	2-3 TREE
	16X01A0577	KAPARTHI SRI CHARAN	
	16X01A0581	KOLLI RAJESH	
	16X01A0589	MD ABDUL WASAY	
	16X01A05B6	UMMADI SAIPRIYA	
5	16X01A0574	K S K MANASWINI	B-TREE
	16X01A0580	KAILASH CHOUDARY	

	16X01A0593	N VIGNESH REDDY	
	16X01A05B7	VALLAPU SRIKANTH	
	16X01A05A2	RAMALA KAVYASRI	
6	16X01A0587	M SUPRIYA	RED BLACK TREE
	16X01A0584	KOMATI REDDY VINITH REDDY	
	16X01A0578	KASHPA NANDU KUMAR	
	16X01A0564	BOKKA LEELA VINATHI	
	16X01A0591	MORROJU PRAVALIKA	
7	16X01A0595	P SANDEEP	B+- TREE
	16X01A0594	NALLA JATHIN REDDY	
	16X01A0597	PANCHA REDDY NIKHIL KUMAR	
	16X01A05B5	TIRUMALI MANASA	
	16X01A05A8	SINGIREDDY SHASHIDHAR REDDY	
8	16X01A05A0	PENNANTI MEENA	MAX HEAP
	16X01A0576	KAMBHAM REDDITHEJA	
	16X01A0563	BAKKA SAI KUMAR GOUD	
	16X01A05A4	SAGGURTHY RUCHIRA SRI DRUTHI	
	16X01A05B2	TADAMALLA SAMUEL SANJEEV	
9	16X01A0599	PEKETI CHAKRA SRAVANI	AVL
	16X01A05B4	THOTA RISHITHA	
	16X01A05B1	T PRANEETH	
	16X01A05A1	PULUGALA SAI KRISHNA	
	16X01A05C0	V.AKHIL	
10	16X01A0583	KOMARAVELLI HARIKA	BST
	16X01A0588	MARISETTY LEKYA SUSHMA SREE	
	16X01A05A7	SHRUTI TANKALA	
	16X01A05B3	THONTA VENKAT GOUD	
	16X01A05A9	S SREE VISHNU	
11	16X01A0572	JAKKULA MOUNIKA	MIN HEAP
	16X01A0590	MITTAPALLY SAHITH REDDY	
	16X01A05A3	RAPOLU MAHESH REDDY	
	16X01A05A5	SAKSHI SARASWAT	
	16X01A05B8	VEMAVARAPU SRILAKSHMI	





2. ACTIVITY BASED LEARNING

Activity-based learning involves students being engaged with a variety of activities including reading, writing, talking, thinking, explaining, applying, testing, building in a classroom, lecture hall or lab.

Advantages:

1) The most important feature of activity based instruction is learning by doing. So this method of instruction can fulfil the natural urge of a growing child on one hand also can help them learn their lesson.

2) The method also promotes better understanding of a lesson among students as they learn the lesson by practicing the task themselves.

3) It inspires the students to apply their creative ideas, knowledge and minds in solving problems as well as promoting competitive spirit among them.

4) It also helps learner psychologically as they can express their emotions through active participation in something useful.

5) The method also helps in developing their personalities, social traits and inter-personal management skills.

Disadvantages :

1) The activity based instruction method requires long-term planning with minute details of the whole process because before engaging the learners, the teacher has to make sure that all students have sufficient knowledge and skills regarding the task they are going to perform. So this method can not be used on a regular and daily basis as it involves a lengthy procedure.

2) The objectives of the method can only be fulfilled if the planning of the lesson is flawless. If there is slightest flaw in the planning, this method would do more harm than good.

3) Learners have varied levels of merit and understanding. So less meritorious students might not prepare for a task as other which might lead to failure of objectives of the whole process.

4) Many renowned educationists also are of the opinion that the activity based method is more suitable for branches of experimental sciences and less useful for subjects of social sciences.

Activity Based Learning implementation

The kind of activity we practiced is Technical Dumb Charades which is expressing Technical Terms or Words through acting. A person is not allowed to talk and is required to act out the name by using different gestures, facial expressions, and body language. Charades is played with teams who guess clues from the actions of their teammates.

Course title : Cloud Computing

Name of the faculty: B.Chiranjeevi, N.Venkatesh

Class: IV year A Section

Academic Year : 2019-20

Semester : I

Topic : Amazon Web Services

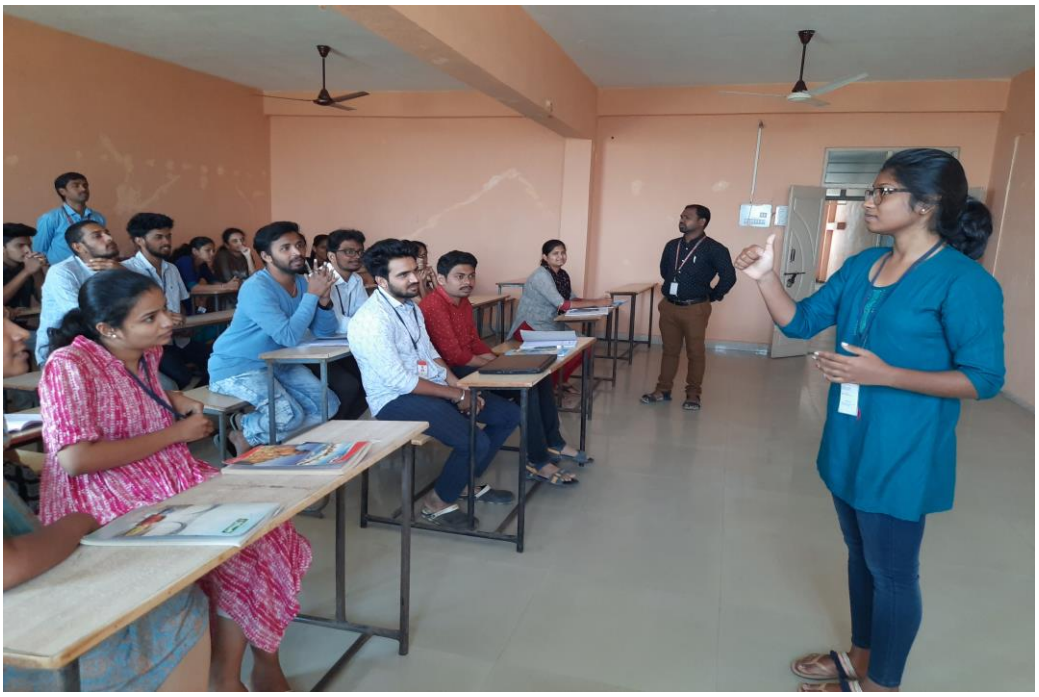
Procedure :

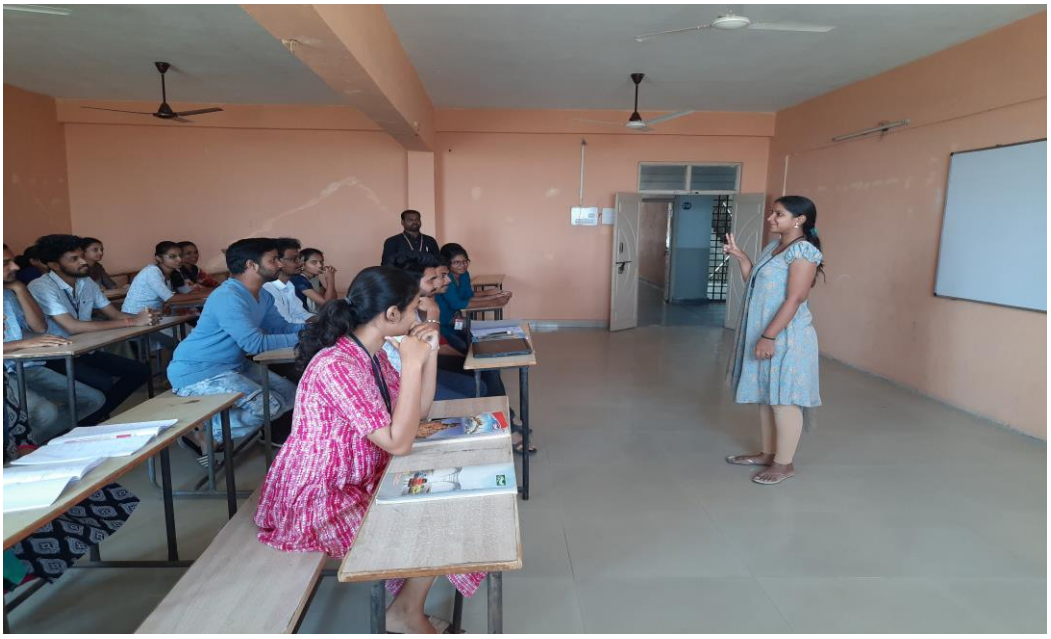
The class strength is divided into 6 groups of size 9. One student from a group shoud come forward and pick a piece of paper and enact based on the word, the remaining members in the group have to identify within 90 seconds. If the answer is correct then 10 marks are awarded. The team with maximum points wins the activity.

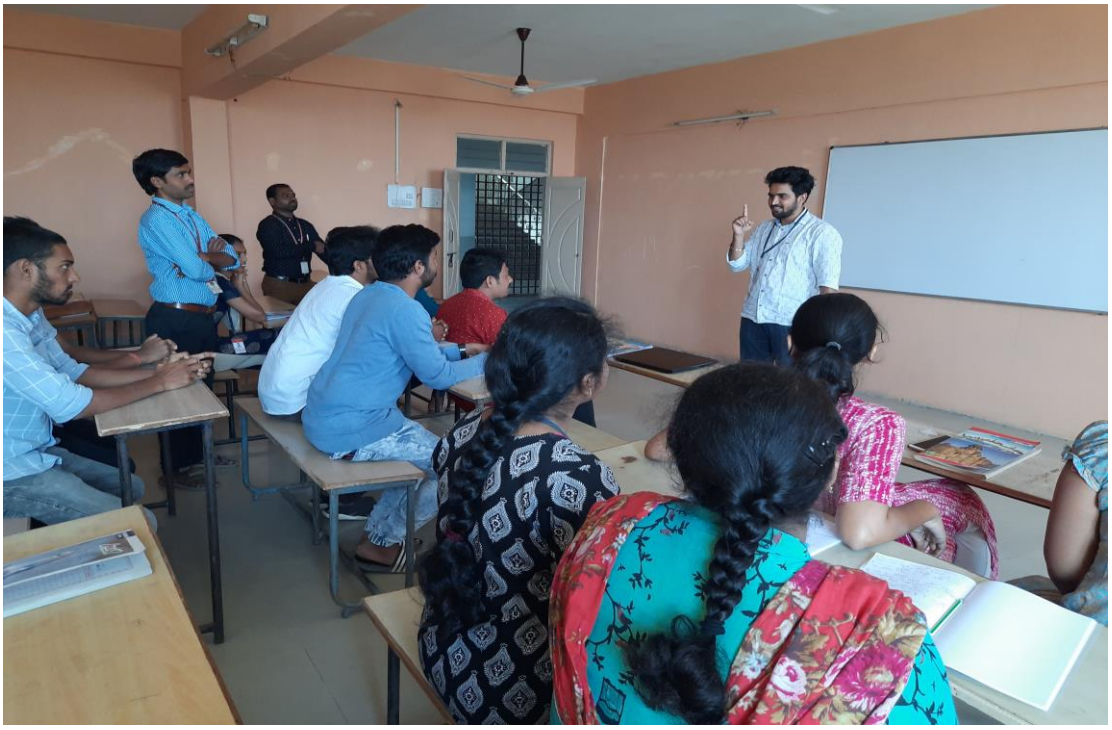
Groups and Words:

SNO	REGISTER NO	NAME OF THE STUDENT
	16X01A0502	A SAI PRAKASH
	16X01A0503	AKURATHI PRIYANKA
	16X01A0504	BALARAJU YAMUNA
	16X01A0505	BERELLY SAI KIRAN
	16X01A0506	BRUNDAVANAM NAGA HINDU
	16X01A0507	BURRA AKILA
	16X01A0509	CHILLIRIGI DEEPIKA
	16X01A0510	CHILUKOTI RAMYA
1	16X01A0511	D SAI VISHAL
	16X01A0512	DEVKANTE SAKSHI
	16X01A0513	DOMMARAJU SANDEEP
	16X01A0514	DONGARA BHAVANA
	16X01A0515	DROUPATHI UPENDRA
	16X01A0516	G PRUTHWIK
	16X01A0517	G JAHNAVI
	16X01A0518	GUNTURU LAVANYA
	16X01A0519	JALA PAVAN KUMAR
2	16X01A0520	JETTY AJAY
	16X01A0521	JILLALA PRANUSHA
	16X01A0522	K VENU GOPAL
	16X01A0523	KADARI ALEKYA
	16X01A0524	KATTA SATISH
	16X01A0525	KALAKUNTLA DEEKSHIT
	16X01A0526	KESARA VISHAL
	16X01A0527	KUNDETI SRIVALLI
	16X01A0528	M S MEGHNA
3	16X01A0529	M VENKATESH
	16X01A0530	MAGESH N
	16X01A0531	MD MOZAMMIL FIRDUS
	16X01A0532	MOHAMMED MEHMOOD AHMED
	16X01A0533	NARAYANOJU AKHIL
	16X01A0534	NEERUDU SHIVANI
	16X01A0535	P PAVAN SURYA PRAKASH
	16X01A0537	PALUMARI SAHITHI
4	16X01A0536	PALLAP SANDEEP
	16X01A0538	PEPAKALA SWATHI
	16X01A0539	PERIKA VARUN
	16X01A0540	PODHUTURI MINISHA
	16X01A0541	PRAKHAR PANDEY
5	16X01A0543	PUTTA CHANDANA PRIYA

	16X01A0544	R SHIVA SAI RAMI REDDY
	16X01A0545	RACHAKONDA VIVEK
	16X01A0546	RAJAGONI SOWMYA
	16X01A0547	RANAMALA SOWMYA
	16X01A0548	RAVULA SHANTHI
	16X01A0549	RONANKI CHANDRA SEKHAR
	16X01A0550	SABBINENI V S SWETHA
	16X01A0551	SAKARABOYINA SRIVANI
	16X01A0552	SATHYARAPU SANJAY
	16X01A0553	SINGIREDDY SAMYUKTHA
	16X01A0554	SUNKARA GYANESHWAR
	16X01A0555	T GANESH KUMAR
	16X01A0556	THATIKONDA PRAKASH
	16X01A0557	VEERAMALLI PRIYANKA
	16X01A0558	VIJAY KUMAR
	16X01A0559	VISSAKOTI VIJAYALAKSHMI
6	16X01A0560	YELLA PRAVALLIKA







The words which taken for activity are virtual machine, client, server, internet gateway, route, open source, license, on demand service, DNS,subnet, multitier, load balance, back end, amazon machine image, elastic compute cloud, simple storage service.

3. ROLE PLAY

Role-play is a technique that allows students to explore realistic situations by interacting

with other people in a managed way in order to develop experience and trial different strategies in a supported environment.

Preparations:

1. Ensure students have required background information to complete the task.
2. Establish classrooms norms that promote community and inclusivity.
3. If needed, distribute prompt and determine student groups.
4. Create a “real-world” environment.
5. Clearly define the role each student should portray.

Benefits:

1. Helps to develop self esteem and confidence.
2. Helps to develop real communication skills in leadership , interviewing and social interaction .
3. Helps to develop ability to observe and analyse situation .
4. Give them opportunity to show their creativity.

Role Play implementation:

Course title : Software Engineering

Name of the faculty: A.Durga Bhavani, K.Bhavani

Class: III year B Section

Academic Year : 2019-20

Semester : I

Topic : Software Development Life Cycle

Procedure:

The main purpose of an activity oriented teaching strategy in the software engineering course is to gain some software engineering experience which cannot be obtained by traditional lecturing. Since all the software projects involve the creation of artifacts such as Software Requirement Specification (SRS), Design document and Test plan documents. When the lifecycle of a software development project is considered, the most prevalent project artifacts are SRS, design document and test plan. Therefore these artifacts were selected to be developed by the students.

According to the planned strategy, students were asked to work as a team to collect the requirements and to prepare the SRS, design, and test plan documents. The instructors acted as facilitators during group activities and guided them on how to collect requirements and what things should be taken care of to get maximum benefits from the

group activity. Each student in the group played the role of a client for their own undergraduate project and the rest of the students in the group were asked to play the roles of System Analyst, Designer, and Tester.

Project title	**Client**	**Analyst**	**Designer**	**Tester**
Canteen automation system	17X01A0551 AAVULA BHASKAR REDDY	17X01A0565 DIDIGE MANISHA	17X01A0579 MANIKONDA SRIVIDYA	17X01A05A0 UOORADI NIKITHA
Voting system	17X01A0552 AKUTHOTA RASAGNA	17X01A0599 THONTI NAVEEN	17X01A0589 RAMPEESA VIKESH KUMAR	17X01A0567 GUDUPU LAVANYA
Employee Tracker	17X01A0583 NALLA SREEJA	17X01A0564 DASARI RAVALIKA	17X01A0595 SUKANYA VIDHATHRI THANDRA	17X01A0575 KORANDHA NITHISH REDDY
Question Paper Generator	17X01A0598 TAMMINA PRANATHI	17X01A0588 RAHUL PANDEY	17X01A0555 B DHANYASUSHWANTH	17X01A0569 JELLA BHARGAVI
Smart health System	17X01A0557 BISOYI MAHESH	17X01A0596 SUMEET BOTHRA	17X01A0584 O PRAVALIKA	17X01A0561 CHILAMAKURI PAVANI
Mobile Attendance System	17X01A0553 ANANTHOJA MANIKANTA	17X01A0597 TADI ARCHANA	17X01A0590 RANGREJ CHOLKAR SRIKANTH	17X01A0572 KAVYA T
A movie show time finder	17X01A0556 B NIDHISHA	17X01A0592 SIRIGADHA MANOJ KUMAR	17X01A0585 PABBA KAVYA	17X01A0558 CHANDA PREETHI
A Tax forecaster	17X01A0593 SIRIGADHA SUJITH KUMAR	17X01A0587 POCHUGARI HANUMANTH REDDY	17X01A0570 JUTTU MANASA	17X01A0571 KANCHARLA PRANAY
Online course registration	17X01A0562 CHINTHALAPUDI JASMITHA	17X01A0566 GANALA OLIVE GLADYS	17X01A0581 MEDICHALAM SHRUTHI	17X01A0580 MEDAM MADHURI
Online Acution	17X01A0563 CHOLLETI NAVYA SREE	17X01A0573 KOMRAVELLI MANICHANDRA	17X01A0586 PENUGONDA VENKAT ROHITH	17X01A0582 NADAKUDURI SOMESH
Online book store	17X01A0574 KORADALA CHANDRA SHEKHAR	17X01A0576 KOTTURI RAJU	17X01A0577 MNIKHIL YADAV	17X01A0578 MANCHIRYALA DURGAKAPIL