EXCELSSIOR EDUCATION SOCIETY'S

K.C. College of Engineering & Management Studies & Research

MithBunder Road, Kopri, Thane (E)

Department of Information Technology

INNOVATION IN TEACHING LEARNING

(Year 2020-21)

Class: SE (IT) **SEM**: III

Subject: DBMS

Faculty Name: Dr.Shobha Tyagi

Academic Year: (III SEM) (2020-2021)

Activity: Mind Mapping

Activity Report

A mind map involves writing down a central theme and thinking of new and related ideas which radiate out from the centre. By focusing on key ideas written down in your own words and looking for connections between them, you can map knowledge in a way that will help you to better understand and retain information.

Explore new ideas and concepts

Help students get a better understanding of new ideas by having them create a mind map. A mind map can assist with understanding because it conveys hierarchy and relationships, allowing students to see the big picture.

Brainstorm

Get creative juices flowing with mind mapping. Mind maps are a great brainstorming tool and can help students let their thoughts flow freely while making important connections between ideas and concepts.

Take Notes

Encourage students to engage in active thinking instead of transcription by using mind maps for note taking. Mind maps encourage students to focus on keywords and ideas instead of just writing down what the teacher says.

Write essays

Students can create an essay outline, gather arguments and quotes or brainstorm ideas for your essays with mind maps.

Memorize information

Mind maps activate many levels of brain activity and are a great tool to help with memorization — from vocabulary words to a foreign language.

Create presentations

Have students use mind maps to present information in an interesting and engaging way with mind maps. Students can use mind mapping software to create a presentation in advance or create one on the spot during a live presentation.

Study for an assessment

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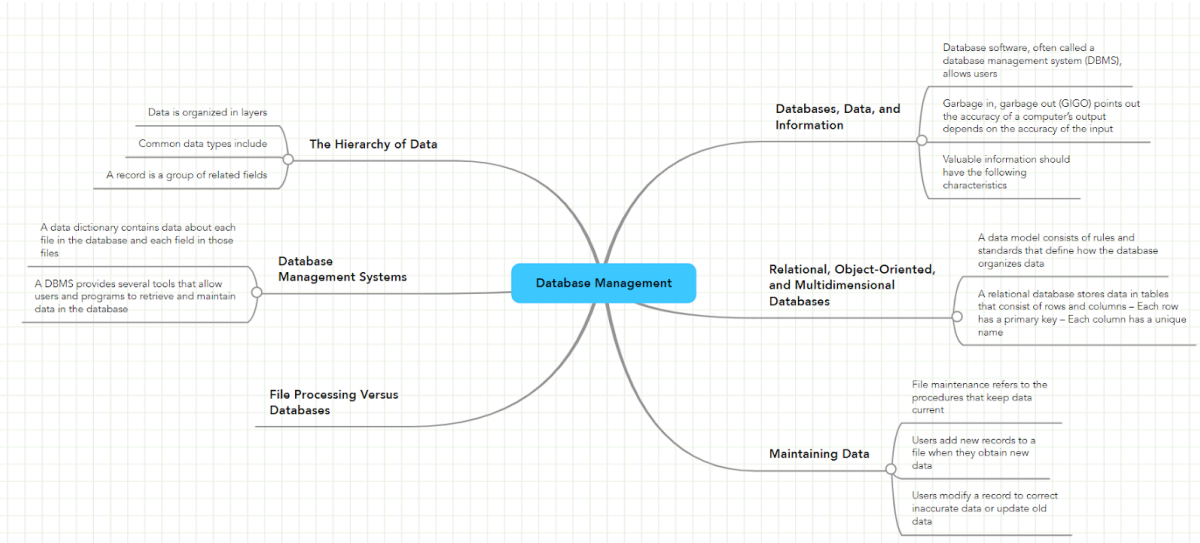
(Year 2020-21)

Mind maps are a great way for students to gather all the information that may be covered on an exam including class notes, textbook chapters and reading lists.

Execute group projects

By using a mind map, students can visualize what needs to be done and who needs to do it. Using an online mind mapping program is best for group projects so students can easily share it.

Outcome: Mind mapping helps in generating, visualising, organising, note-taking, problem-solving, and decision-making, revising and clarifying your university topic, so that students can get started with assessment tasks. Essentially, a mind map is used to 'brainstorm' a topic and is a great strategy for students.



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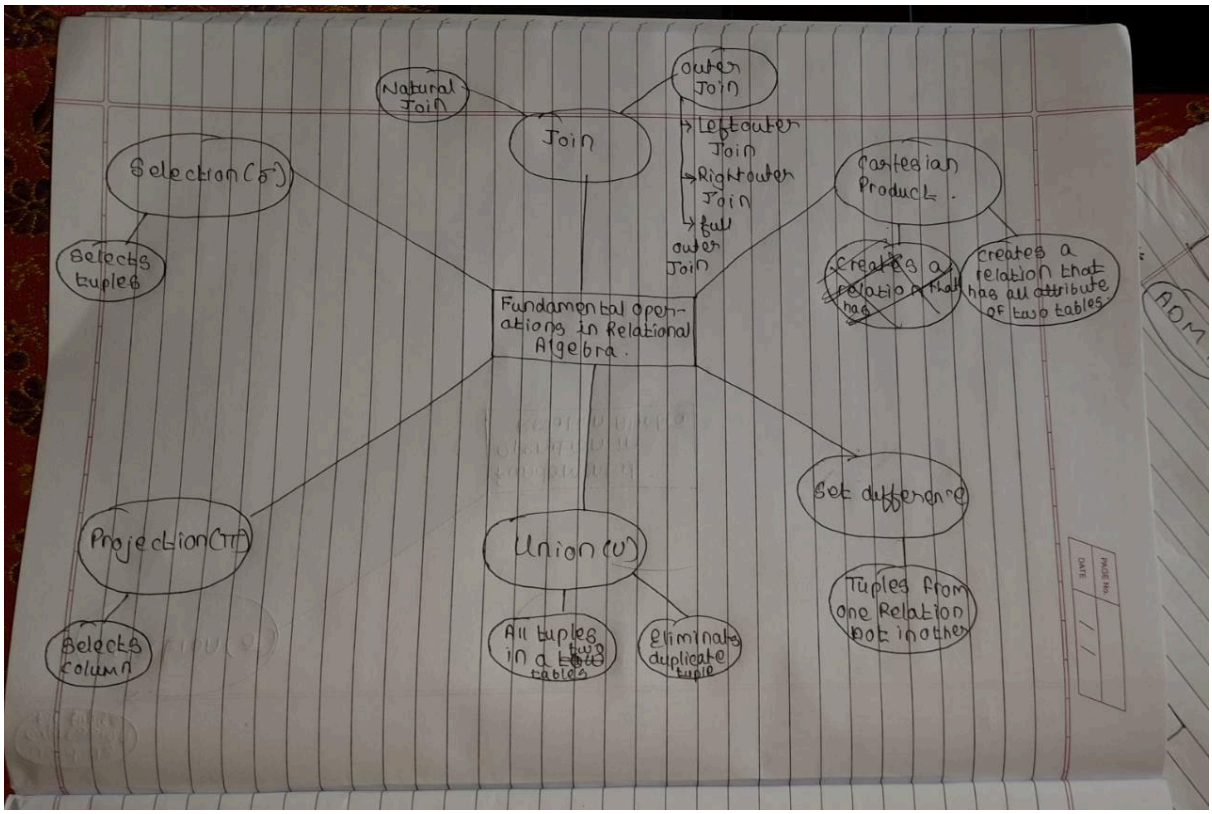
(Year 2020-21)



Prepared by ,

Dr.Shobha Tyagi

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Department of Information Technology

INNOVATION IN TEACHING LEARNING

(Year 2020-21)

Class: SE (IT) **SEM**: III

Subject: SQL

Faculty Name: Devika Rani Roy

Academic Year: (III SEM) (2020-2021)

Activity: Quiz

Activity Report

A online quiz is usually a short test, and often doesn't have a huge impact on your grades as a test has. It's an easy way to keep track of your students and have an insight into the gaps of knowledge. It gives both the teacher and student a reflection. It shows students on what subject they have to focus. There are different kinds of questions that can be used for quizzes.

Analysis of result is done online which helps student in knowing in which area they are strong or weak. Difficulty level in quiz can be increased or decreased in various stages of quiz.

Outcome: Students enjoy playing quiz which helps them in even understanding that in which areas of subject thy are strong or weak and improves there remembering skills. Students do not have to wonder if their answer is correct or not as they answer a question, the quiz programs tells the student. Students can answer without feeling badly about having a wrong answer as can happen in a class.

LINK:

https://forms.gle/gNV3XJmyE7Nkie7Y7

Sample Proof:

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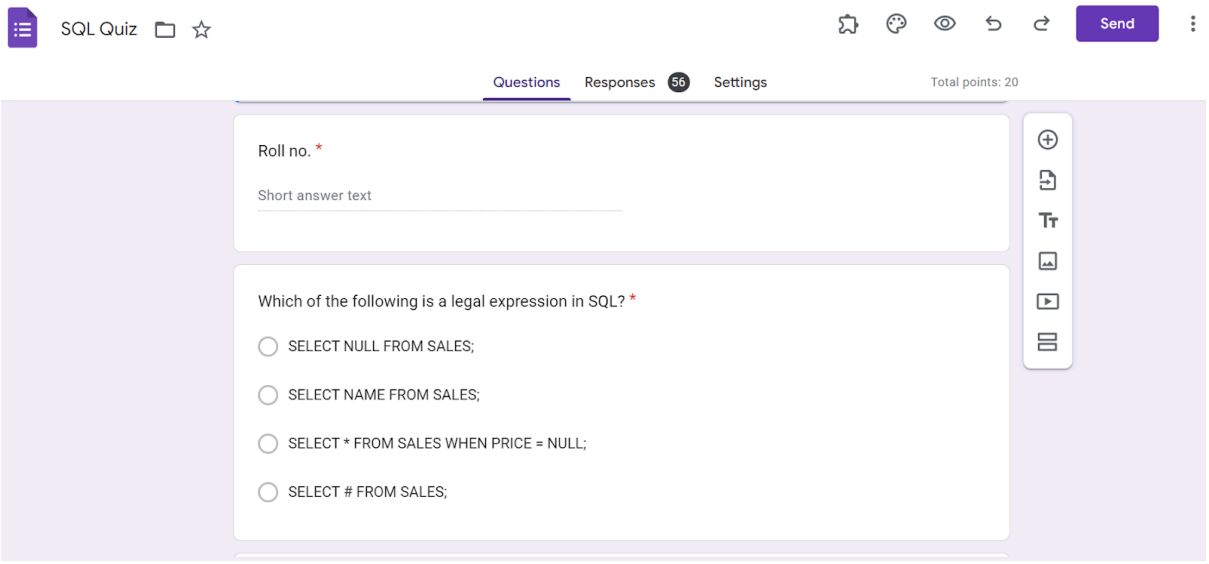
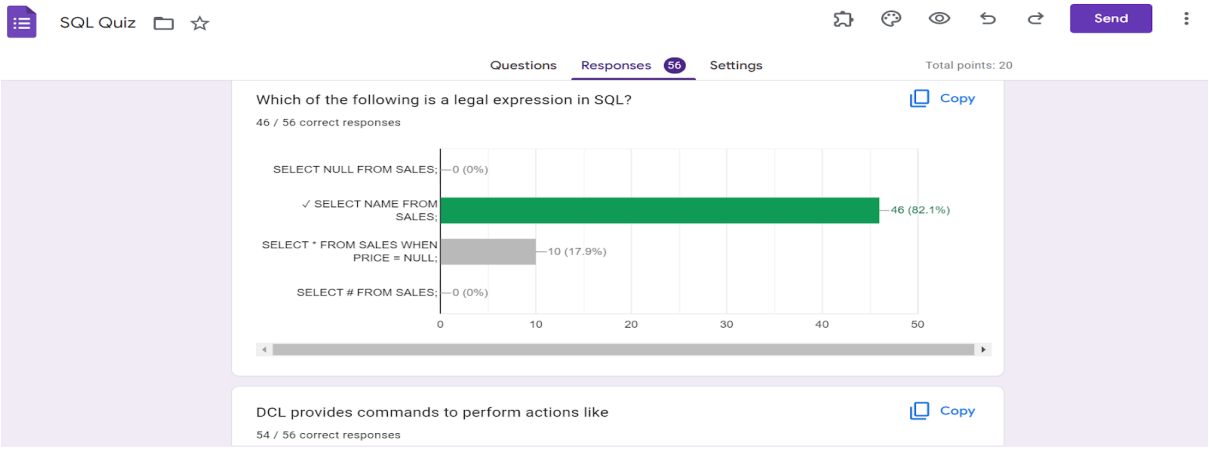
(Year 2020-21)





Quiz conducted for all students and case study on security systems (**56 attempted out of 77 scored more than 80%**)

Quiz Questions	Solutions
Q1. Write an SQL query to find names of employee start with 'A'?	SELECT * FROM Employees WHERE Emp Name like 'A%' ;

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(Year 2020-21)

Q2. What is the difference between primary key and unique constraints?	There is only one primary key in a table, but there can be multiple unique constrains.
Look at the above question and choose correct answer	case 3
Q4. The COUNT function in SQL returns the number of _____	Values
Q5. Which data type can store unstructured data in a column?	RAW
Q6. SQL permits attribute names to be repeated in the same relation.	FALSE
Q7. Which statement in SQL allows us to change the definition of a table is?	ALTER
Q8. The SQL used by front-end application programs to request data from the DBMS is called _____	DML
Q9. The command used to delete a particular column in a relation is _____	ALTER , DROP
Q10. The database language that allows us to access data in a database is called :	DCL
Q11. Which of the following statements are TRUE about an SQL query? P : An SQL query can contain a HAVING clause even if it does not have a GROUP BY clause. Q : An SQL query can contain a HAVING clause only if it has a GROUP BY clause. R : All attributes used in the GROUP BY clause must appear in the SELECT clause. S : Not all attributes used in the GROUP BY clause need to appear in the SELECT clause.	P and S

Link Of Quiz: https://forms.gle/NWPgB1aQq4zXwdmD9

Prepared by,

Devika Rani Roy

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INNOVATION IN TEACHING LEARNING

(Year 2020-21)

SUBJECT: Engineering Mathematics III

ACTIVITY: Mini-Project Presentation **(Content beyond syllabus)**

ACTIVITY REPORT:

Second year engineering students are having the self learning topics in their syllabus.

The topics are

1. Heaviside's Unit Step function, Laplace Transform of Periodic functions, Dirac Delta Function.
2. Applications to solve initial and boundary value problems involving ordinary differential equations
3. Complex form of Fourier Series, orthogonal and orthonormal set of functions, Fourier Transform.
4. Conformal mapping, linear, bilinear mapping, cross ratio, fixed points and standard transformations
5. Covariance, fitting of exponential curve.
6. Skewness and Kurtosis of distribution (data)

Four to five students have been allotted in each group for preparing the presentations. The students have prepared a proper presentation with a powerpoint presentation using a mind mapping tool. Mini-Project presentations have been taken in the online mode.

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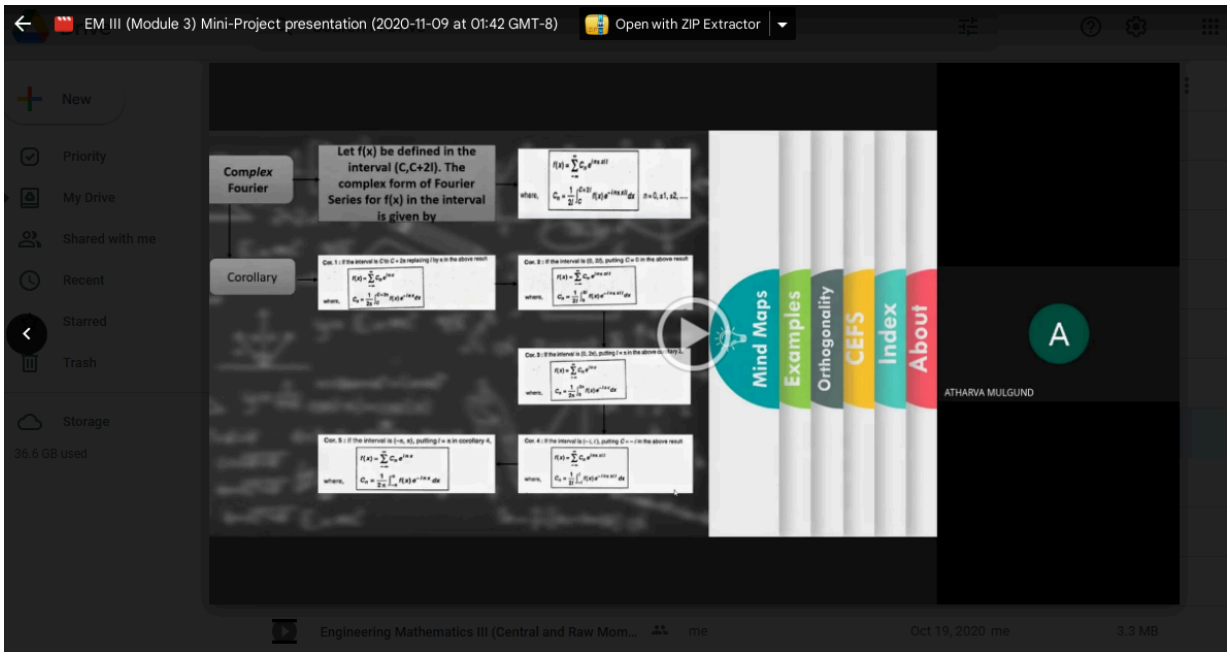

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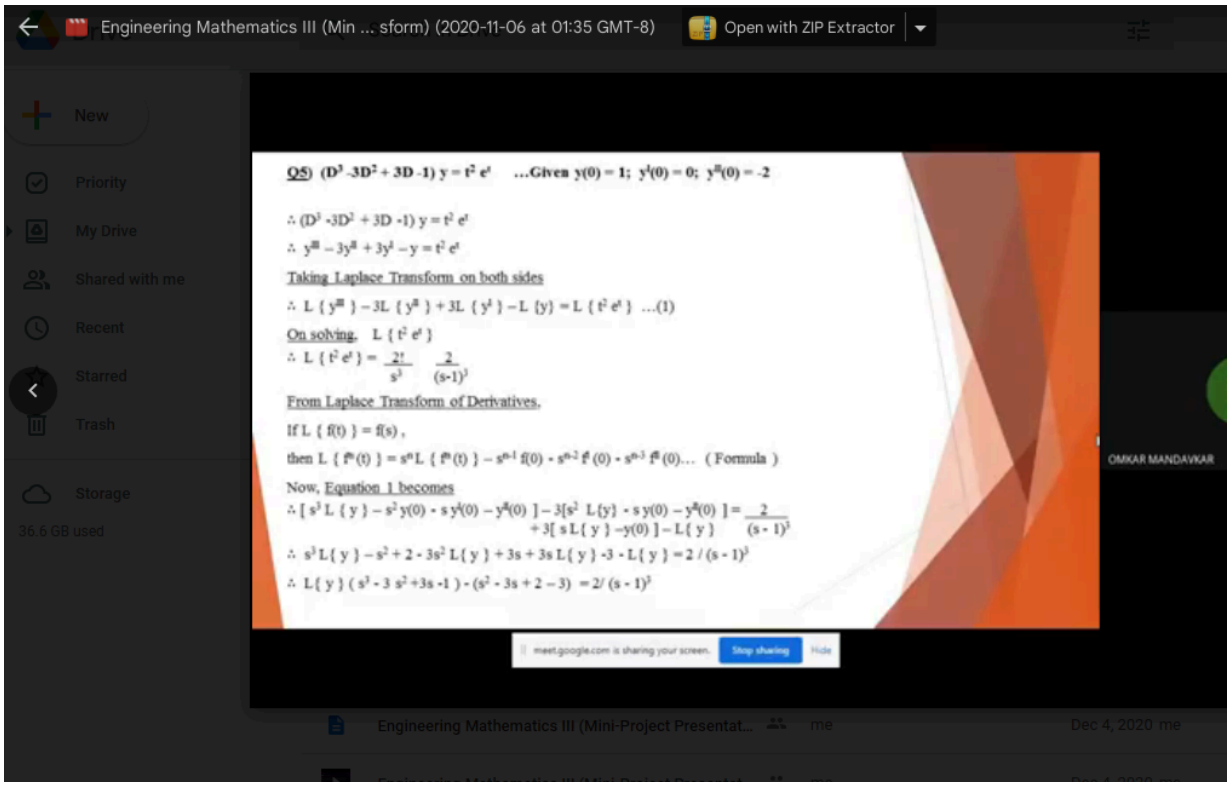

OUT COME:

1. The students have adapted the self learning aspect in their Mini-project reporting and presentation.
2. The students have acquired the skill of typing equations in word and PPTs.
3. The students have acquired the presentation skills.

Prepared by,

Prof.Bhuma Devi

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INNOVATION IN TEACHING LEARNING

(Year 2020-21)

Class : BE(IT) **SEM**: VII

Subject: Software Testing and Quality Assurance

Activity: To write test cases for project

Activity Report: A TEST CASE is a set of actions executed to verify a particular feature or functionality of your software application. A Test Case contains test steps, test data, precondition, postcondition developed for specific test scenario to verify any requirement. The test case includes specific variables or conditions, using which a testing engineer can compare expected and actual results to determine whether a software product is functioning as per the requirements of the customer.

Students have designed test case for the project done earlier with expected and actual results

Outcome : Students were able to get good idea of what needs to be done to test a system. They were able to analyze with actual and expected results

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INNOVATION IN TEACHING LEARNING

(Year 2020-21)

Name : Resham G. Gupta
Roll no : 05
Subject : STQA Activity

TOPIC : Attendence System Using RFID Card

Test Case :

SR NO.		TEST CASES	INPUT TEST DATA	EXPECTED RESULT	ACTUAL RESULT	PASS/FAIL
1.	1.	Verify the login functionality with valid username and password Click on login button.	Username: ameya@gmail.com Password: xxxxxxx@1	Credential can be entered. User logged.	As Expected User logged successfully.	PASS PASS
	2.	Verify the login functionality with valid username and invalid password Click on login button.	Username: ameya@gmail.com Password: xxxxxxx@2	Credential can be entered. User logged.	As Expected Unsuccessful login.	PASS FAIL
	3.	Verify the login functionality with invalid username and valid password Click on login button.	Username: ameya12@gmail.com Password: xxxxxxx@1	Credential can be entered. User logged.	As Expected Unsuccessful login.	PASS FAIL
	4.	Verify the login functionality with invalid username and invalid password Click on login button.	Username: ameya12@gmail.com Password: xxxxxxx@2	Credential can be entered. User logged.	As Expected Unsuccessful login.	PASS FAIL

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SR. NO.		TEST CASES	INPUT TEST DATA	EXPECTED RESULT	ACTUAL RESULT	PASS/FAIL
2.	1.	View Details	Search Data	Filter the search Data	Filter the Search Data	**Pass**
3.	1.	Update the Data	Select the Row for update	Updated Data	Updated Successfully	Pass
4.	1.	Delete the Data	Select the row	Deleted Data	Deleted Successfully	Pass
5.	1.	Mark Attendence	Scan the card	Match with Database	Scanned Successfully	Pass
	2.	Mark Attendence	Scan the Card	Not match with database	Not Matched	Fail

Prepared by,

A.P Manjusha Shelke

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INNOVATION IN TEACHING LEARNING

(Year 2020-21)

Class : BE Sem : VII

Subject: Infrastructure Security

Faculty Name: Ms.Manasi Choche

Activity: Quiz (Kahoot)

Activity Report: To evaluate student performance in learning the recent applications with respect to teacher's instructional method, the final year student had attempted Quiz. This activity is to get acquisition about the fundamental recovery whether students are able to understand basic things in the subject.

This activity was conducted for all the students. It was useful to evaluate bright students who have answered almost all the answers correctly. To make this quiz interesting it was taken in Kahoot platform.

Outcome: Students were able to apply the concepts and memorize the basic concepts.

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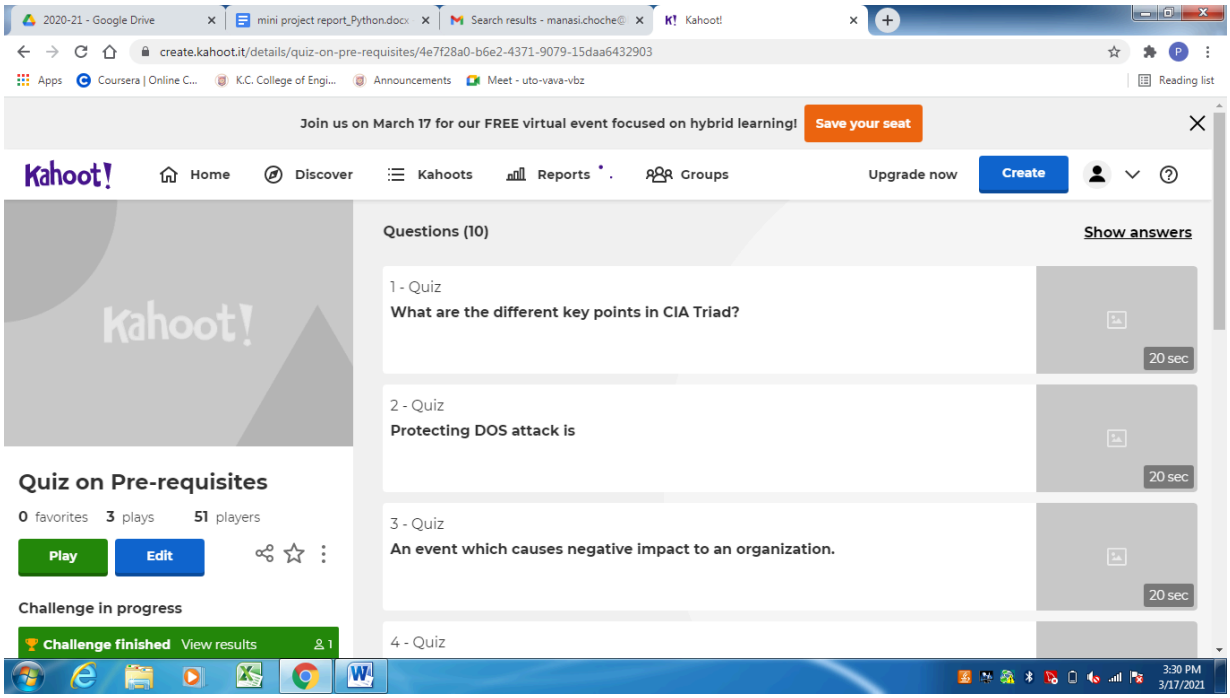
(Year 2020-21)



Prepared by,

A.P Manasi Choche

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INNOVATION IN TEACHING LEARNING

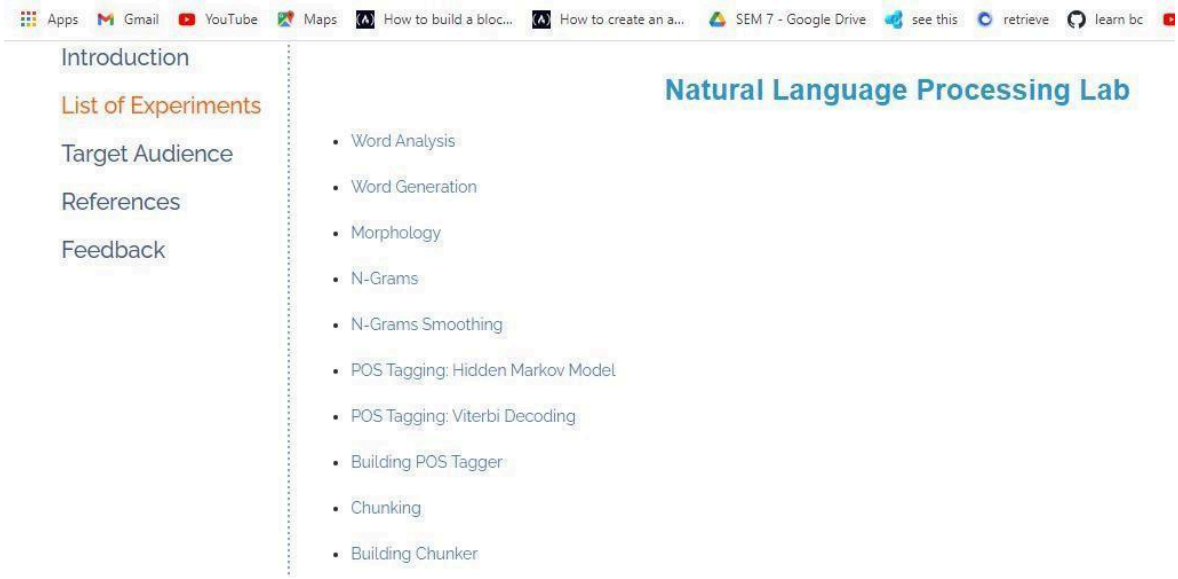
(Year 2020-21)

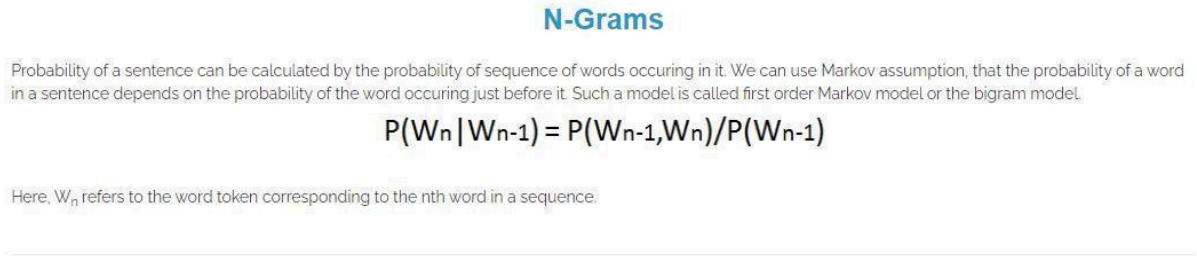
Subject: Artificial Intelligence

Name of Activity: Virtual Lab Experiment on NLP

Virtual Lab on Natural Language Processing Word Analysis and N-Grams

Sample Report:





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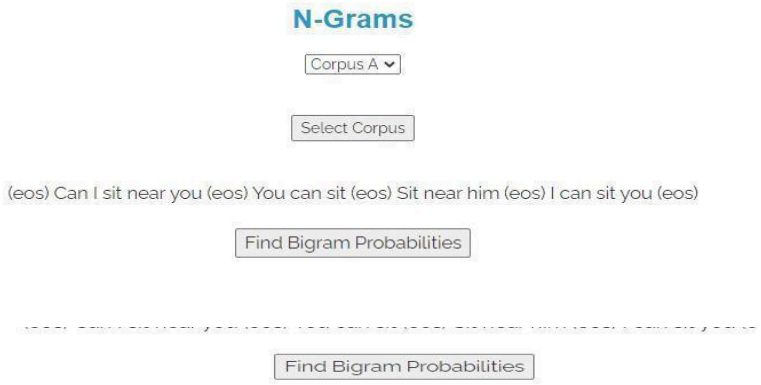
(Year 2020-21)



	(eos)	I	you	him	can	near	sit
(eos)	o	o	o	o	o	o	o
I	o	o	o	o	o	o	o
you	o	o	o	o	o	o	o
him	o	o	o	o	o	o	o
can	o	o	o	o	o	o	o
near	o	o	o	o	o	o	o
sit	o	o	o	o	o	o	o

	(eos)	I	you	him	can	near	sit
(eos)	0	0.2	0.2	0	0.2	0	0.2
I	0	0	0	0	0.5	0	0.5
you	0.66	0	0	0	0.33	0	0
him	1	0	0	0	0	0	0
can	0	0.33	0	0	0	0	0.66
near	0	0	0.5	0.5	0	0	0
sit	0.25	0	0.25	0	0	0.5	0

Outcome: Students understood Basic concepts of NLP (N-gram, Word Analysis) using Vlab.

Prepared by,

A.P Amarja Adgaonkar

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INNOVATION IN TEACHING LEARNING

(Year 2020-21)

Class :SE **Sem: IV**

Subject:Automata Theory

Name of Activity: Assignment and Case Study on Compilers

Activity Report: Assignment study on working of Compiler was given to students to explore concepts like DAG Representation, Grammar, Syntax Analysis etc in different phases of compiler Also student has studied different types of compilers used for Programming Language.

A case study on compiler is given for the same.

Outcome: Students understood concepts of automat theory to be used in compiler construction

Sample Report:

https://drive.google.com/file/d/1OTt2X1d-7Bex9v-SDoIEc742j-iHBPSm/view?usp=sharing

Prepared by,

A.P Amarja Adgaonkar

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INNOVATION IN TEACHING LEARNING

(Year 2020-21)

Class:TE Semester:VI

Subject: DMBI

Common Activity : CASE Study on BI Applications

Name of Activity: Case Study on BI applications

Activity Report: Case study on various subjects were given to students to explore applications of Business intelligence in various domains.

Batch wise case study was given on Data Mining for Financial Data Analysis , Data Mining for retail and Telecommunication Industry , Data Mining for recommender system .

Case study was given on following topics:

1. Data Mining for Market Segmentation
2. Data Mining for Retail and Telecommunication Industry with example
3. Data Mining for Recommender System

Outcome: Students understood various domains in which Business Intelligence is used

Proof: Sample

Prepared by,

A.P Amarja Adgaonkar

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INNOVATION IN TEACHING LEARNING

(Year 2020-21)

Class : SE (IT) Sem: IV

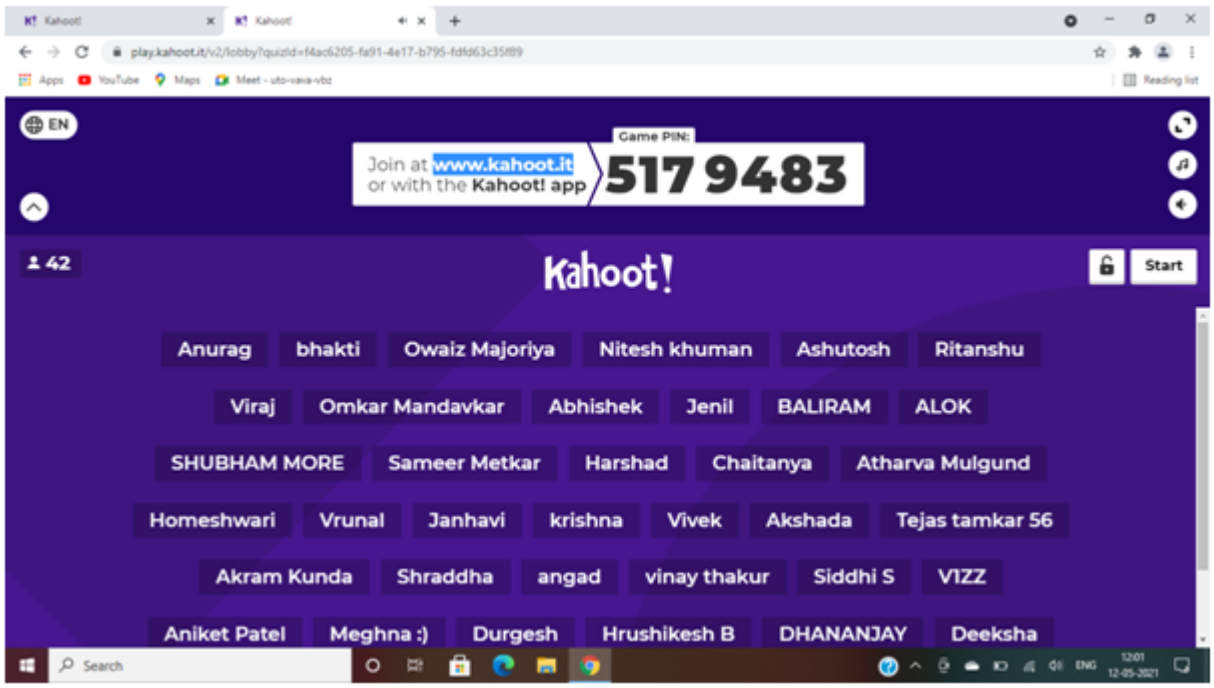
Subject: Python Lab

Activity: Quiz (Kahoot)

Activity Report: To evaluate student performance in learning the recent applications with respect to teacher's instructional method, the final year student had attempted Quiz. This activity is to get acquainted with the fundamental recovery of whether students are able to understand basic things in the subject.

This activity was conducted for all the students. It was useful to evaluate bright students who have answered almost all the answers correctly. To make this quiz interesting it was taken on Kahoot platform.

Outcome: Students were able to apply the concepts and memorize the basic concepts.



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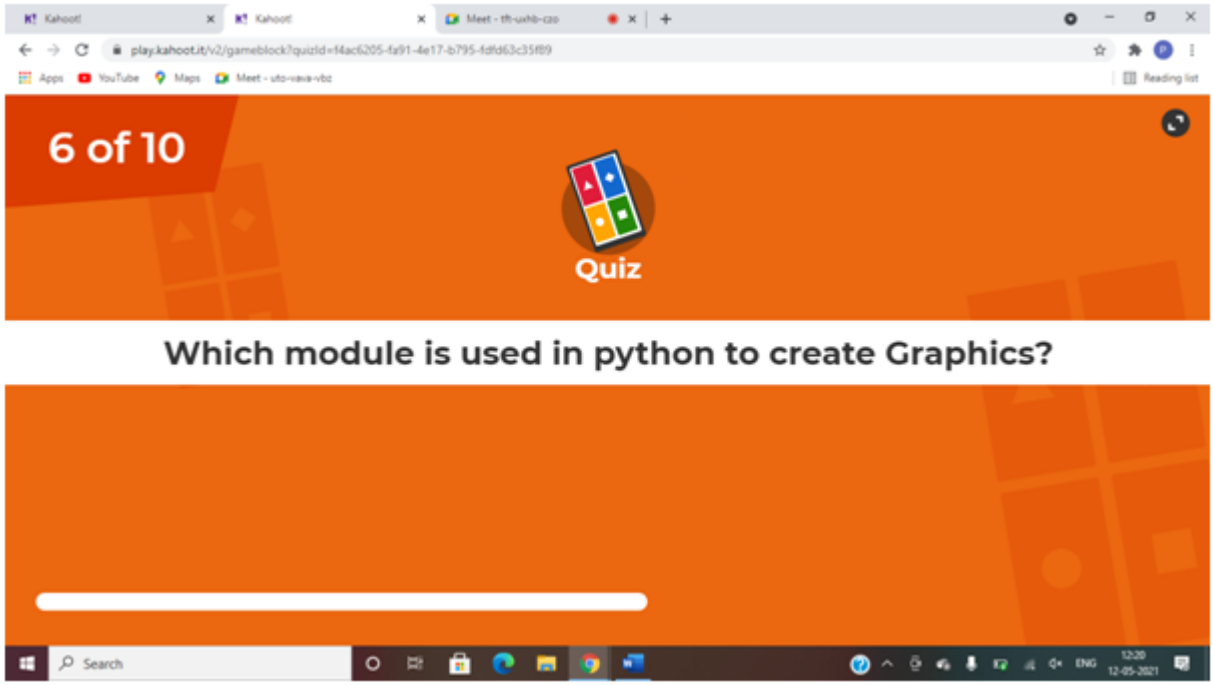

Prepared by,

A.P Jaya Kulchandani

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INNOVATION IN TEACHING LEARNING

(Year 2020-21)

Class : SE (IT) Sem: IV
Subject: Operating System

Activity: Virtual Lab

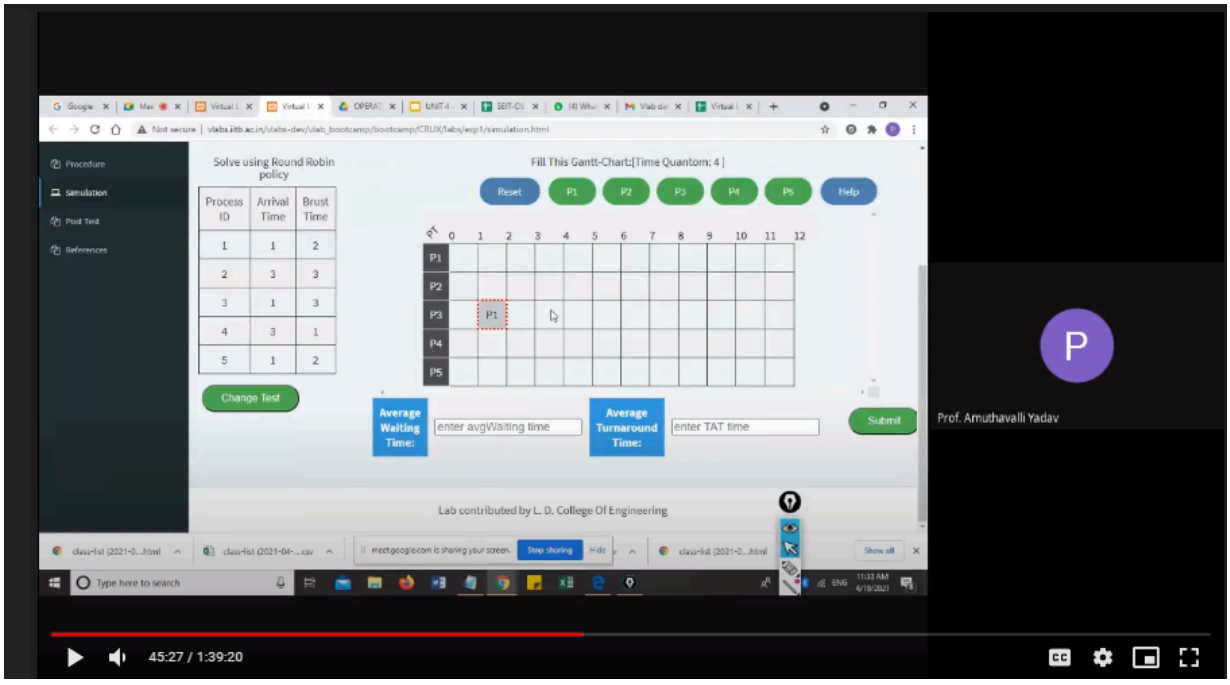
Activity Report:

Round robin scheduling algorithm experiment was conducted in virtual lab. Students have read all the demonstration and followed the steps to simulate round robin algorithm. This would help them in learning basic and advanced concepts through remote experimentation. With help of Virtual Labs students can avail the various tools for learning, including additional web-resources, video-lectures, animated demonstrations and self evaluation.

Outcome: Students were able to simulate the working of scheduling algorithm with virtual lab

AttendanceLink:

https://drive.google.com/drive/folders/1Ourlz0g42JVuB2vJcNlwu1ZSZq67cRzb



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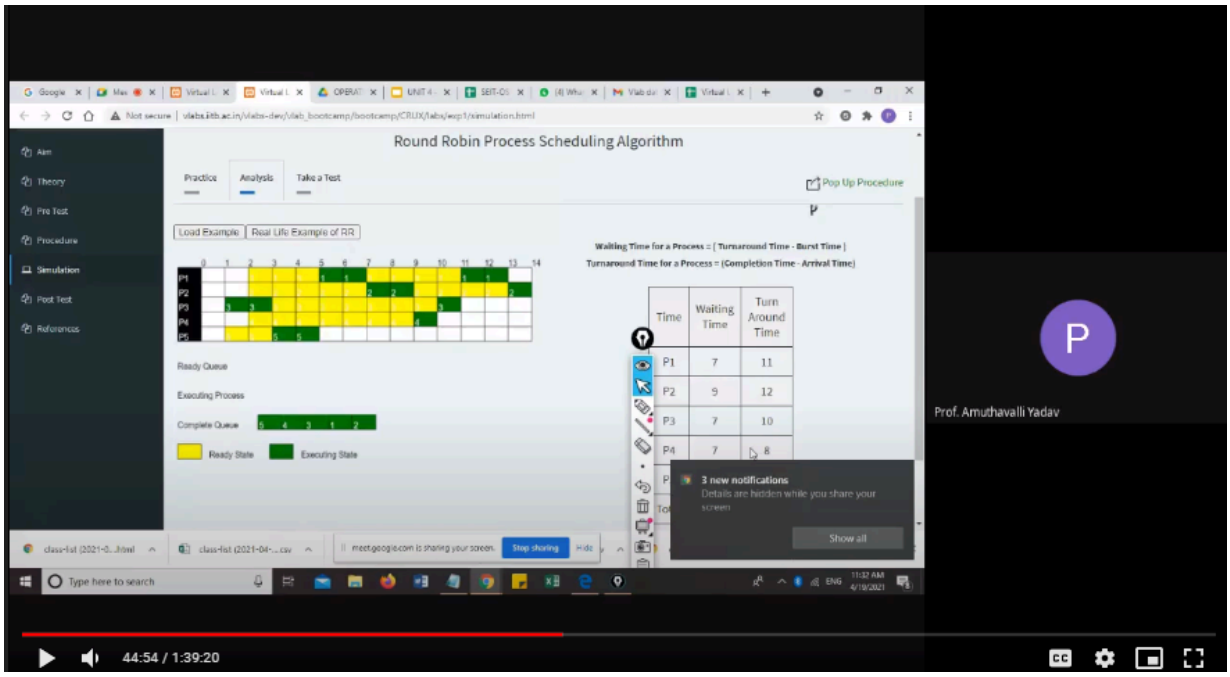

Prepared by,

A.P Amuthavalli Yadav

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INNOVATION IN TEACHING LEARNING

(Year 2020-21)

Class : TE (IT) Sem: VI
Subject: Software Engineering with Project Management

Activity: Virtual Lab

Activity Report: To enthuse students to conduct experiments by arousing their curiosity. This helped them in learning basic and advanced concepts through remote experimentation. It provided a complete Learning Management System around the Virtual Labs where the students can avail the various tools for learning, including additional web-resources, video-lectures, animated demonstrations and self evaluation.

This activity was conducted for all the students. It was useful to learn the concepts by using various learning platforms.

Outcome: Students were able to apply the concepts and use the system effectively.

AttendanceLink:
https://docs.google.com/spreadsheets/d/15Cb90H1s7KYxFKIj-WGSOFBkehw_kudzFgQw76x7W6Q/edit?usp=sharing

https://docs.google.com/spreadsheets/d/1eq9cJRdJYthOVLVb8-EAA6v8mz6evbu8VXyOnCRYi0g/edit?usp=sharing

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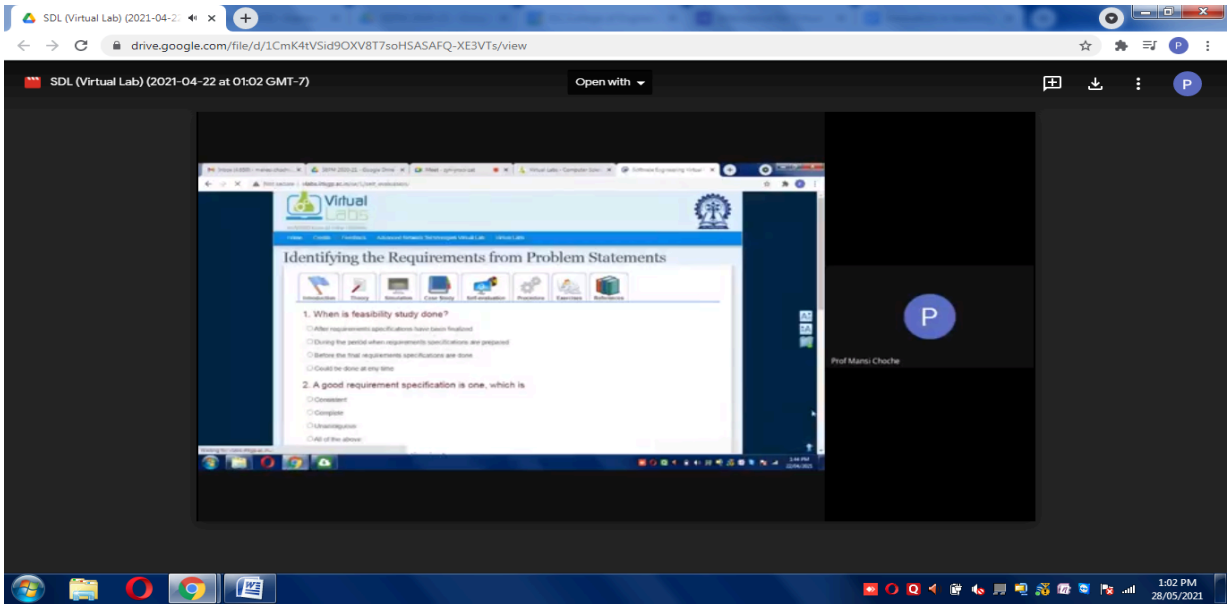

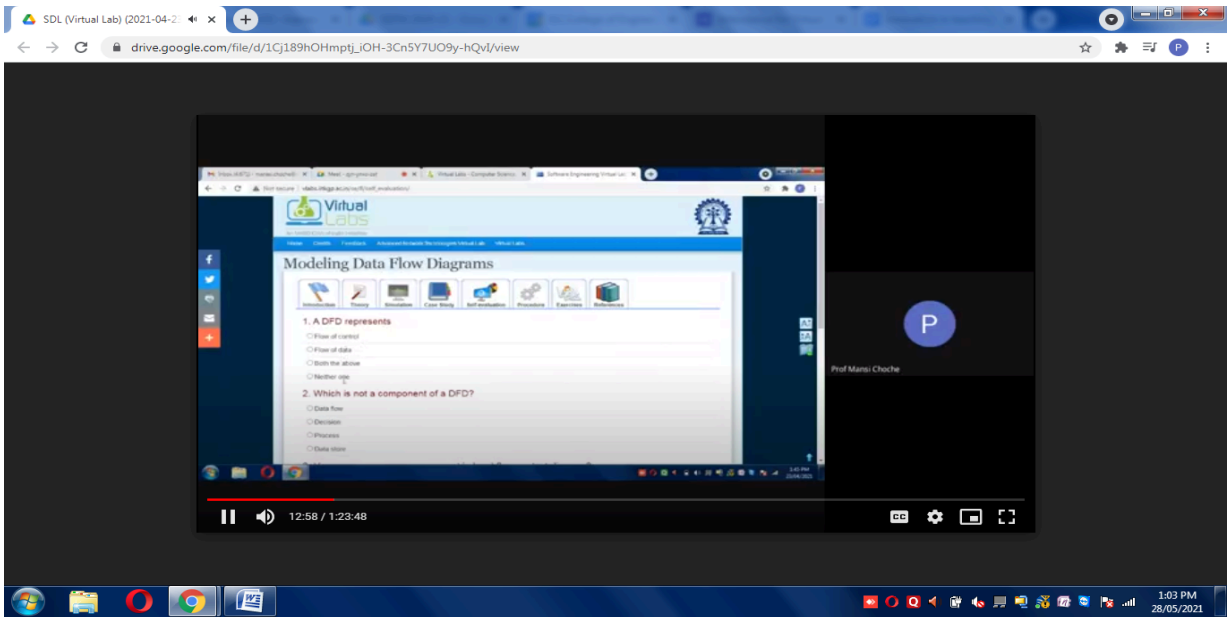

Prepared by,

A.P Manasi Choche

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Department of Information Technology

INNOVATION IN TEACHING LEARNING

(Year 2020-21)

Semester: VI **Class:** TEIT

Subject: Cloud Computing & Services

Activity: Assignment :Case Study on Various services of cloud by AWS

Activity Report: Assignment study on Various services of cloud by AWS was given to students to explore various services and features of AWS etc in different domains like compute, database, analytics, security, monitoring etc.

This helped student to explore real life services of cloud used in AWS.

Outcome: Students understood various services by AWS and could differentiate among services of cloud.

ROLL.NO.	NAME	TOPIC
1	ACHAREKAR NISHANT SURESH	AWS Analytics : Amazon Kinesis
2	AMALKHAN SABRINA ABDUL KHALIC	LightSail in AWS
3	AMBRE ATHARVA ANKUSH	GameTech in AWS
4	ANAM JIGAR ASHWIN	Security, Identity, and Compliance on AWS
5	BADGUJAR ANUJA VITTHAL	AWS Lambda in AWS
6	BHAMBLE KETKI RAVINDRA	DMS (Database Migration Service) in AWS
7	BHANUSHALI DEESHA NARESH	Amazon Managed Blockchain
8	BOGA HARSHAL NAGARJUNA	Snowball in AWS
9	CHAVAN DHANASHREE RAJENDRA	Amazon Glacier in AWS
10	DALVI SHRUTI RAMCHANDRA	Neptune in AWS.
11	DESAI HETVI MILIND	AWS Storage Gateway in AWS

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12	DESHMUKH ABHILASHA BHARAT	IAM (Identity and Access Management) in AWS
13	DHANJAL JAGDISH SINGH	Inspector in AWS
14	DINDE KOMAL VIJAYKUMAR	Media Services in AWS
15	DOSHI JINESH DEEPAK	WAF (Web Application Firewall) in AWS
16	DUBEY ANKIT VINAY	Cloud Directory in AWS
17	DUTARGI NAYANA VITTHAL	KMS (Key Management Service) in AWS
18	GAWDE KAUSTUBH NATH	Organizations in AWS
19	GHARAT KARTIKI VIPIN	Amazon Aurora in AWS
20	GOHIL CHINTAN MAHESH	Macie in AWS
21	GUNJAL BHUSHAN ANANTA	GuardDuty in AWS
22	JADHAV SAMEER SANTOSH	Amazon RDS in AWS
23	JADHAV SHUBHAM RAJESH	Amazon DynamoDB in AWS
24	JAIN PAYAL ASHOK	Cloud storage on AWS
25	JAISWAL MANAV AVDESH	Amazon Elastic Block Store (EBS) in AWS
26	JAVKAR SUMIT ANKUSH	Amazon RedShift in AWS
27	JHA HARISH MADHAV	Athena in AWS
28	JOSHI ANISH PRAVIN	Cloud Search in AWS
29	JOSHI TEJAS MANISH	ElasticSearch in AWS
30	KESARKAR MANASI PANDHARI	GuardDuty in AWS
31	KOTIAN MAYUR YESHWANT	QuickSight in AWS
32	MANRAL HEMANGI ANAND SINGH	EMR (Elastic Map Reduce) in AWS
33	MHASHELKAR SHUBHAM LAXMIKANT	Data Pipeline in AWS
34	MIRANI PREM DINESH	CloudWatch in AWS
35	MOMIN FARHAN IRFAN	CloudFormation in AWS
36	MORE OMKAR SANJAY	CloudTrail in AWS
37	MORE SHRUTI SHRINIVAS	OpsWorks in AWS
38	NAYAK AMRUTHA ANANTH	Config in AWS
39	PANDEY SEJAL CHETAN	Service Catalog in AWS

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(Year 2020-21)

40	PANESAR HARKEERAT SINGH	AWS Auto Scaling in AWS
41	PATEL RUPAK JAGDISH	Systems Manager in AWS
42	PATIL KRUSHNA PRADIP	Managed Services in AWS
43	PATIL PRATHAMESH KALLAPA	IoT Core in AWS
44	PAWAR PIYUSH VINOD	IoT Device Management in AWS
45	PEDNEKAR NINAD BHUSHAN	IoT Analytics in AWS
46	PRAJAPATI SHASHI JAYADRATH	Amazon FreeRTOS in AWS
47	RADYE SAHIL EKNATH	CodeStar in AWS
48	SAKPAL AKSHAY BALKRISHNA	CodeCommit in AWS
49	SALGAONKAR AMIT VITHAL	CodeBuild in AWS
50	SALLAGARGI VIKHIL BAJANNA	CodeDeploy in AWS
51	SANAS AABOLI ANIL	CodePipeline in AWS
52	SHAIKH AMAAN ASHRAF	Cloud9 in AWS
53	SHAIKH ARSHIYA MASOOD	AWS CloudTrail in AWS
54	SHAIKH MISBA MOHAMMED ALI	AWS CloudHSM in AWS
55	SHELKE OMKAR ANIL	Step Functions in AWS
56	SHET BHARGAV DATTATRAY	SWF (Simple Workflow Service) in AWS
57	SHETTY PRANAY SUKUMAR	SNS (Simple Notification Service) in AWS
58	SHINDE RASHI SANTOSH	SQS (Simple Queue Service) in AWS
59	SHIRODKAR MRUDUL JAYANT	Elastic Transcoder in AWS
60	SINGH ABHISHEK PRAMOD	WorkSpaces in AWS
61	SINGH SHUBHRA RAJESH	AppStream in AWS
62	SONAWANE BHAVANA RAMESH	Amazon DynamoDB in AWS
63	TALEKAR DURVESH SAINATH	Cognito in AWS
64	THAKAR MEET YATIN	Device Farm in AWS

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INNOVATION IN TEACHING LEARNING

(Year 2020-21)

65	TIWARI ANSHUMAN MANOJ KUMAR	AWS AppSync in AWS
66	TIWARI VAIBHAV ANIL	GameLift in AWS
67	VASALA PRASHANT GANGADHAR	Instagram & AWS
68	VISHWAKARMA PRATIK DEEPAK	Zoopla & AWS
69	YASHWANTRAO SHRUTIK JAGDISH	Smugmug & AWS
70	PARAKHAR TIWARI	Pinterest & AWS
71	SOURABH OJHA	Netflix& AWS
72	VAISHANVI SHAPUR	Dropbox & AWS
73	YADAV KANCHAN	Etsy & AWS
74	SOMAL SHRIKANT	AWS container (Amazon ECS)
75	SAWANT CHINMAY	Playfish & AWS
76	CHAVAN AKSHAY	Ftopia& AWS
77	GANGURDE JANJAVI	Amazon DynamoDB in AWS

Sample Report:

https://drive.google.com/file/d/18VUuBmQVHrKImDZGBbuVtB8UO2xx49si/view?usp=sharing

Prepared by,

A.P.Devika Rani Roy

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INNOVATION IN TEACHING LEARNING

(Year 2020-21)

Class: TE (IT) **SEM**: VI

Subject: Cloud Service Design Lab

Faculty Name: Devika Rani Roy

Academic Year: (VI SEM) (2020-2021)

Activity: Mind Mapping

Activity Report

A mind map involves writing down a central theme and thinking of new and related ideas which radiate out from the centre. By focusing on key ideas written down in your own words and looking for connections between them, you can map knowledge in a way that will help you to better understand and retain information.

Explore new ideas and concepts

Help students get a better understanding of new ideas by having them create a mind map. A mind map can assist with understanding because it conveys hierarchy and relationships, allowing students to see the big picture.

Brainstorm

Get creative juices flowing with mind mapping. Mind maps are a great brainstorming tool and can help students let their thoughts flow freely while making important connections between ideas and concepts.

Take Notes

Encourage students to engage in active thinking instead of transcription by using mind maps for note taking. Mind maps encourage students to focus on keywords and ideas instead of just writing down what the teacher says.

Write essays

Students can create an essay outline, gather arguments and quotes or brainstorm ideas for your essays with mind maps.

Memorize information

Mind maps activate many levels of brain activity and are a great tool to help with memorization — from vocabulary words to a foreign language.

Create presentations

Have students use mind maps to present information in an interesting and engaging way with mind maps. Students can use mind mapping software to create a presentation in advance or create one on the spot during a live presentation.

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Study for an assessment

Mind maps are a great way for students to gather all the information that may be covered on an exam including class notes, textbook chapters and reading lists.

Execute group projects

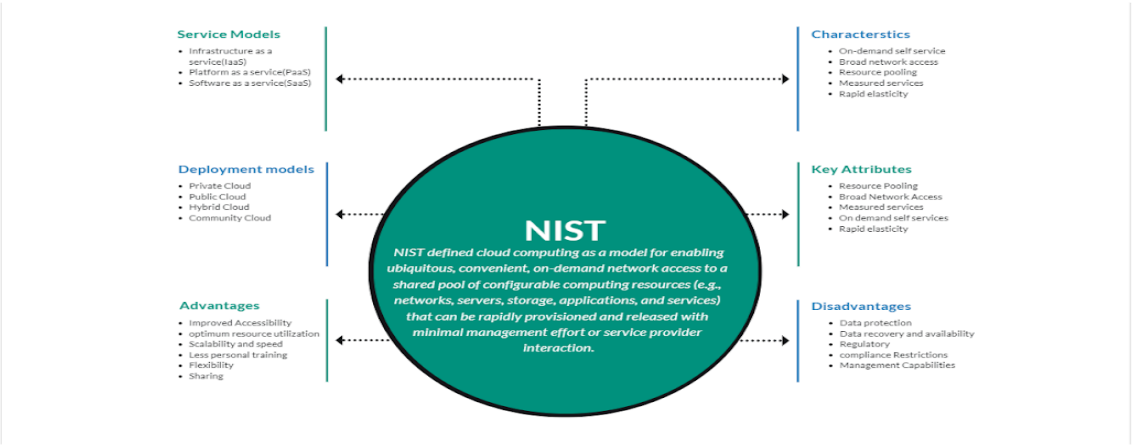
By using a mind map, students can visualize what needs to be done and who needs to do it. Using an online mind mapping program is best for group projects so students can easily share it.

Outcome: Mind mapping helps in generating, visualising, organising, note-taking, problem-solving, and decision-making, revising and clarifying your university topic, so that students can get started with assessment tasks. Essentially, a mind map is used to 'brainstorm' a topic and is a great strategy for students.

Sample :

Link: https://drive.google.com/file/d/1uxf1CBuZOn_2TwBE6siZAA1QBFTpmm1L/view?usp=sharing

Name: Deesha Bhanushali
Roll No: 07



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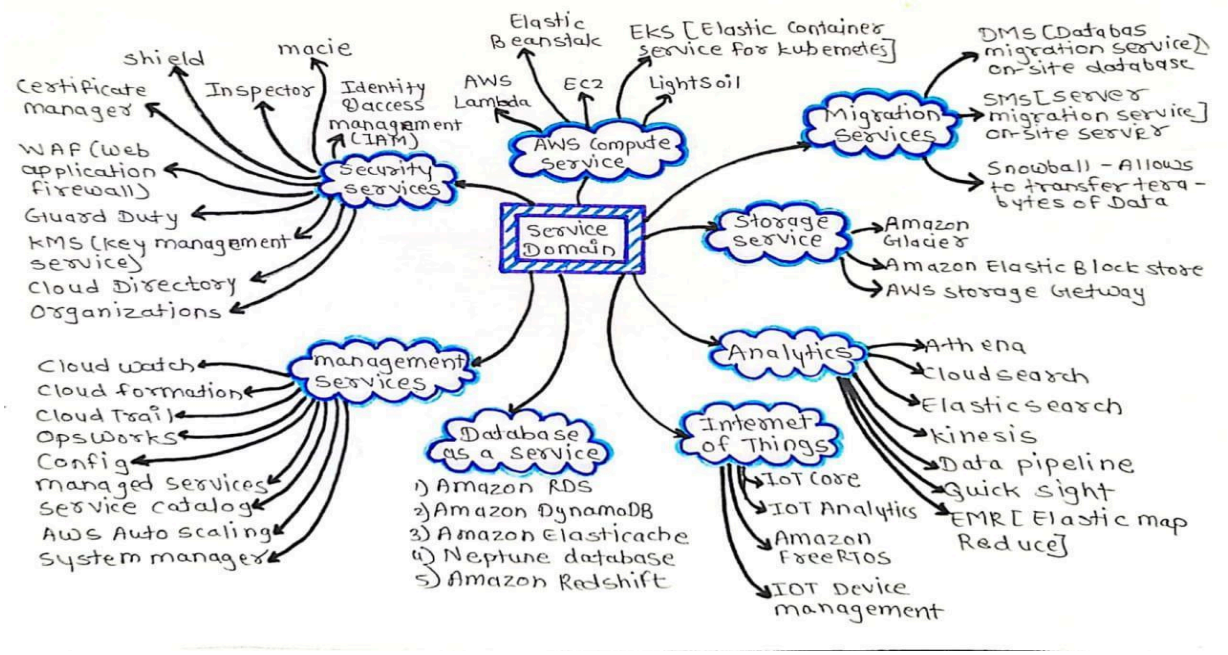

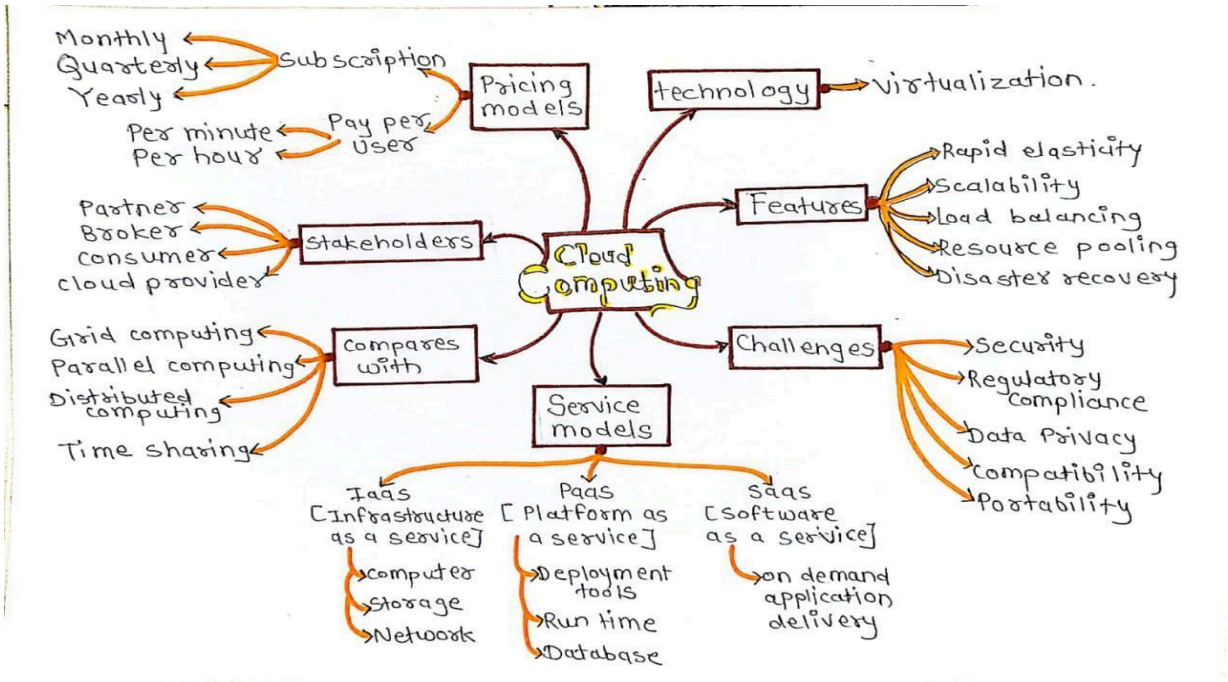

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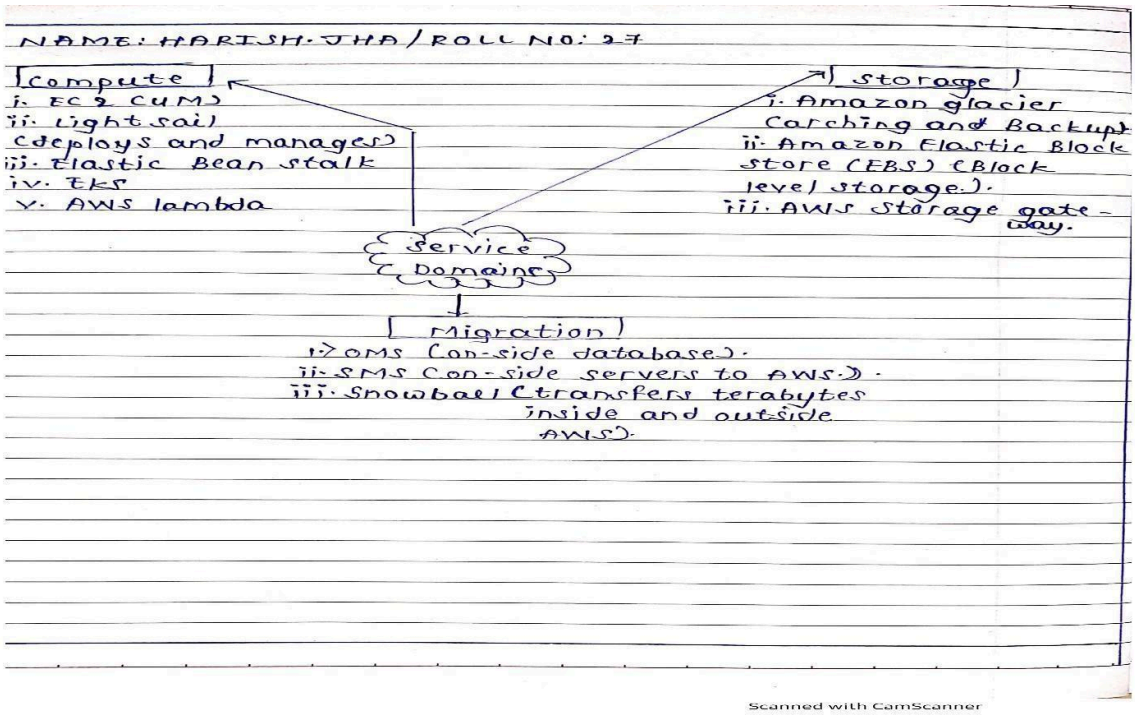

Prepared by,

A.P.Devika Rani Roy

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INNOVATION IN TEACHING LEARNING

(Year 2020-21)

Class: TE (IT) **SEM**: VI

Subject: Cloud Computing & Services

Faculty Name: Devika Rani Roy

Academic Year: (VI SEM) (2020-2021)

Activity: Quiz (Batch wise)

Activity Report

A online quiz is usually a short test, and often doesn't have a huge impact on your grades as a test has. It's an easy way to keep track of your students and have an insight into the gaps of knowledge. It gives both the teacher and student a reflection. It shows students on what subject they have to focus. There are different kinds of questions that can be used for quizzes.

Analysis of result is done online which helps student in knowing in which area they are strong or weak. Difficulty level in quiz can be increased or decreased in various stages of quiz.

Outcome: Students enjoy playing quiz which helps them in even understanding that in which areas of subject thy are strong or weak and improves there remembering skills. Students do not have to wonder if their answer is correct or not as they answer a question, the quiz programs tells the student. Students can answer without feeling badly about having a wrong answer as can happen in a class.

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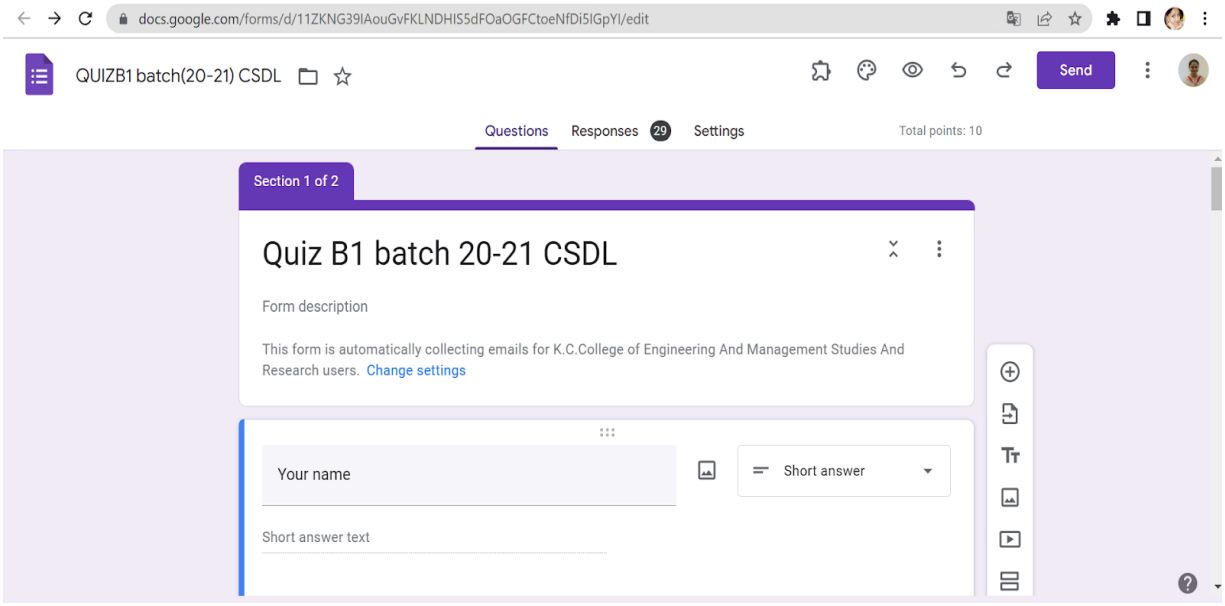

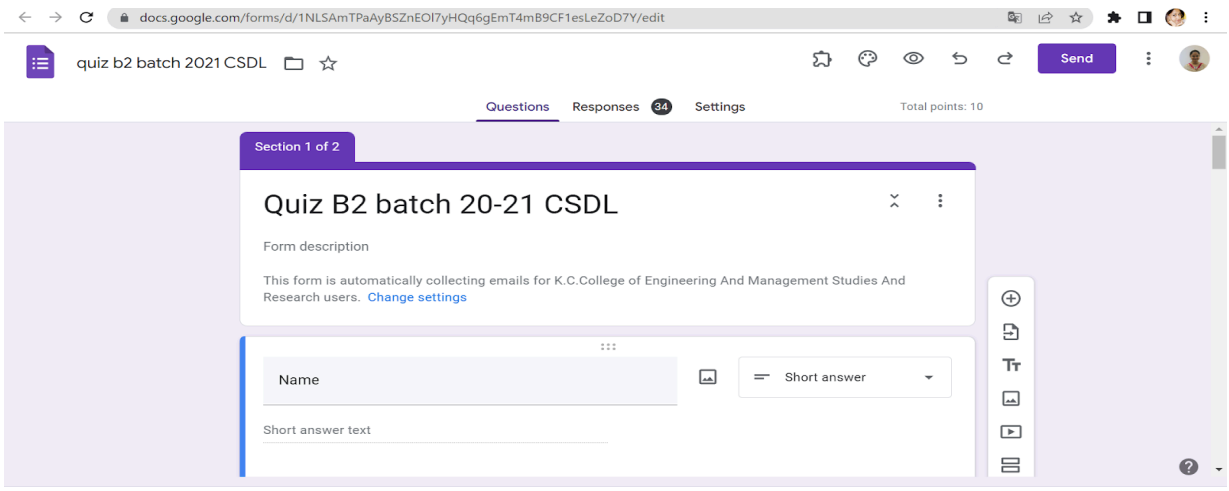

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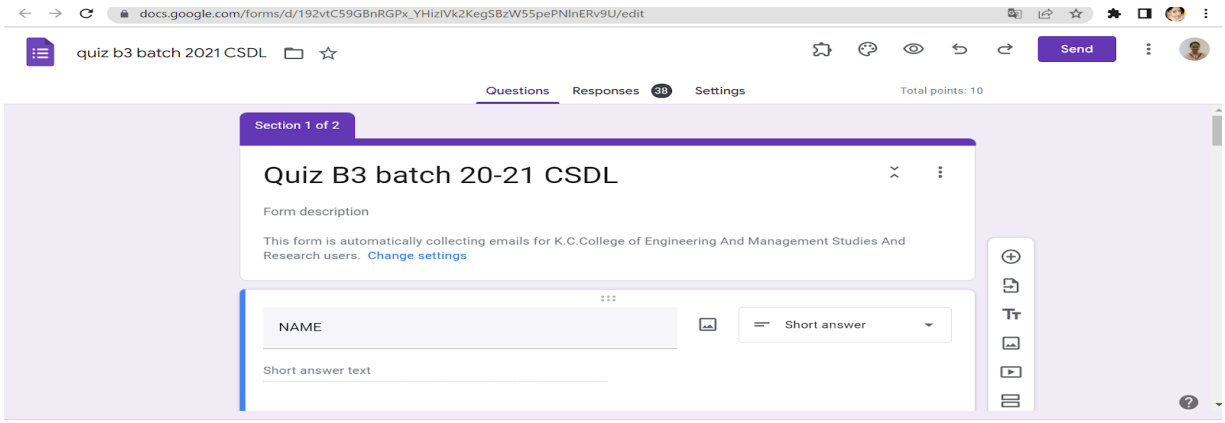
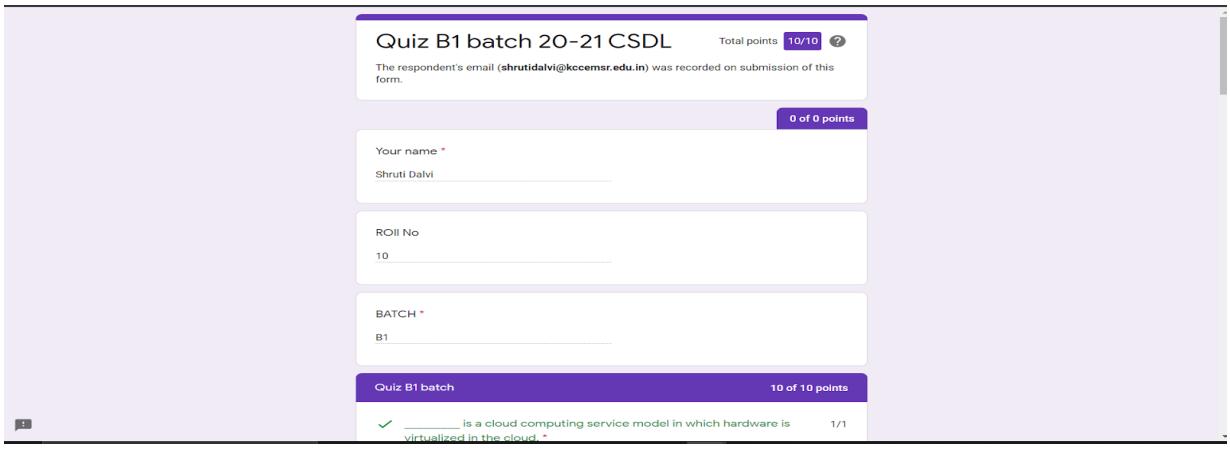


Sample of attempted quiz:



Links of Quiz:

B1 BATCH: https://forms.gle/TEnprwjxJnNa5Dn3A

B2 BATCH: https://forms.gle/sF7R7jnENU4XbGi4A

B3 BATCH: https://forms.gle/xbpnAFmrp87e48AQ7

Prepared by,

A.P.Devika Rani Roy

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INNOVATION IN TEACHING LEARNING

(Year 2020-21)

Class : BE (IT) Sem: VIII
Subject: Internet of Everything

Activity: Quiz on IOT

Activity Report: : It gives exposure to students to outside surrounding thing related to Internet of Things. It helps to understand the subject by exploring outside technology related to subject.

This quiz covers exposure to both slow and advance learner.

Outcome: Students were able to learn list of things related to Internet of things outside syllabus.

Questions and Solutions

1. Which characteristics involve the facility the thing to respond in an intelligent way to a particular situation?
a) Intelligence
b) Connectivity
c) Dynamic Nature
d) Enormous Scale
Answer: a
Explanation: IoT comes with the combination of algorithms and computation, software and hardware that makes it smart. Ambient Intelligence in IoT enhances its capabilities which facilitate the things to respond in an intelligent way to a particular situation.

2. _____ empowers IoT by bringing together everyday objects.
a) Intelligence
b) Connectivity
c) Dynamic Nature
d) Enormous Scale
Answer: b
Explanation: Connectivity empowers IoT by bringing together everyday objects. Connectivity of these objects is pivotal because simple object level interactions contribute towards collective intelligence in IoT network.

3. The collection of data is achieved with _____ changes.
a) Intelligence
b) Connectivity
c) Dynamic Nature

d) Enormous Scale
Answer: c
Explanation: The primary activity of Internet of Things is to collect data from its environment, this os achieved with the dynamic changes that take place around the devices.
4. The number of devices that need to be managed and that communicate with each other will be much larger.
a) Intelligence
b) Connectivity
c) Dynamic Nature
d) Enormous Scale
Answer: d
Explanation: The number of devices that need to be managed and that communicate with each other will be much larger than the devices connected to the current internet.
5. _____ Provide the means to create capability that reflects true awareness of the physical world and people.
a) Sensors
b) Heterogeneity
c) Security
d) Connectivity
Answer: a
Explanation: Sensing technologies provide the means to create capability that reflects true awareness of the physical world and people in it. The sensing information is simply the analogue input from the physical world.
6. _____ in IoT as one of the key characteristics, devices have different hardware platforms and networks.
a) Sensors
b) Heterogeneity
c) Security
d) Connectivity
Answer: b
Explanation: Heterogeneity in IoT as one of the key characteristics, devices have different hardware platforms and networks. And can interact with other devices or services platforms through different networks.
7. IoT devices are naturally vulnerable to _____ threats.
a) Sensors
b) Heterogeneity
c) Security

d) Connectivity
Answer: c
Explanation: IoT devices are naturally vulnerable to security threats. There is a high level of transparency and privacy issues with IoT.
8. Which challenge comes under IoT devices, reliable bidirectional signaling.
a) Signaling
b) Security
c) Presence detection
d) Power consumption
Answer: a
Explanation: With connected IoT devices, reliable bidirectional signaling is essential for collecting and routing data between devices.
13. Which of the following issues are considered in IoT?
a) Security Issue
b) Reliablity Issue
c) Standard Issue
d) All issues
Answer: d
Explanation: We should be very careful while building IoT as it has the following issues:
Security Issue
Reliablity Issue
Standard Issue.
15. IoT is a paradigm that involves ubiquitous presence in the environment.
a) True
b) False
Answer: a
Explanation: IoT is a paradigm that involves ubiquitous presence in the environment of different things that are using wireless and wire networks.

Prepared by,

A.P.Vishal Gotrane

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INNOVATION IN TEACHING LEARNING

(Year 2020-21)

Class: BE (IT) **SEM**: VIII

Subject: R Programming

Faculty Name: Devika Rani Roy

Academic Year: (VIII SEM) (2020-2021)

Activity: Quiz

Activity Report

A online quiz is usually a short test, and often doesn't have a huge impact on your grades as a test has. It's an easy way to keep track of your students and have an insight into the gaps of knowledge. It gives both the teacher and student a reflection. It shows students on what subject they have to focus. There are different kinds of questions that can be used for quizzes.

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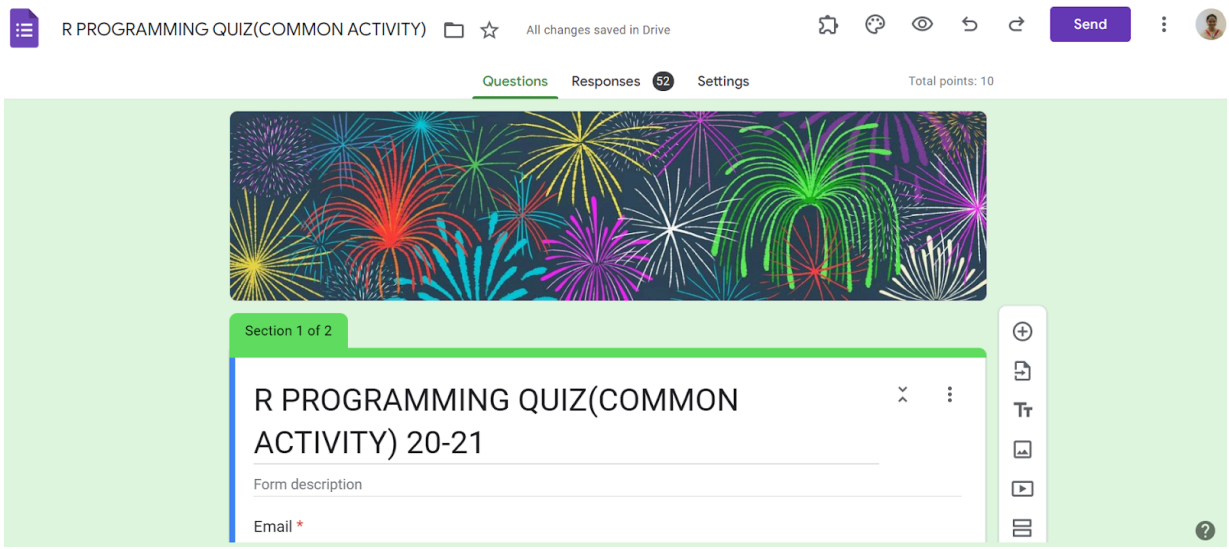
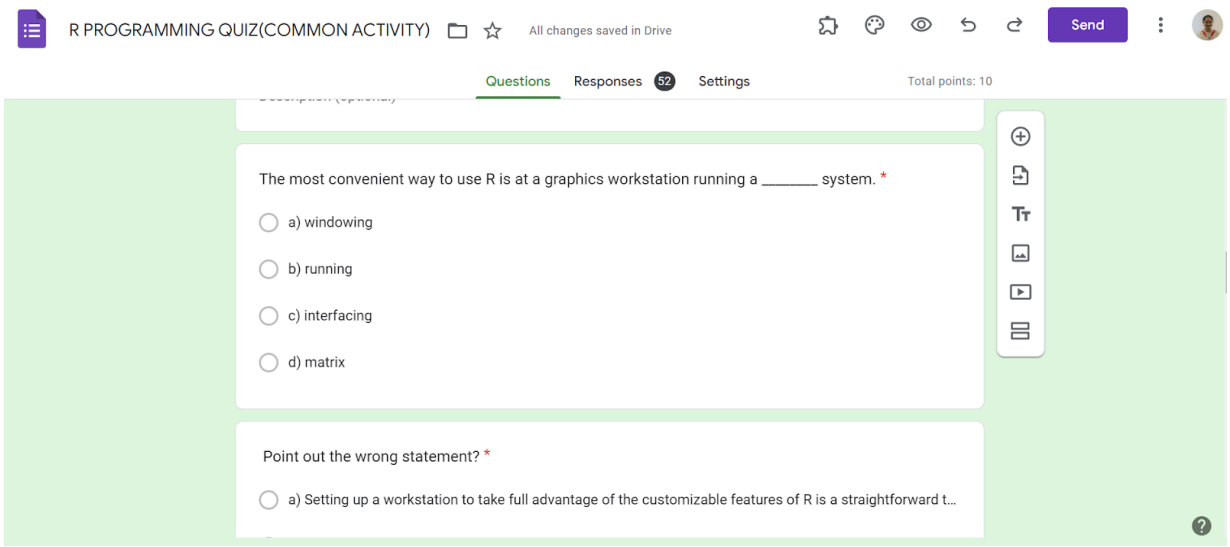
INNOVATION IN TEACHING LEARNING

(Year 2020-21)





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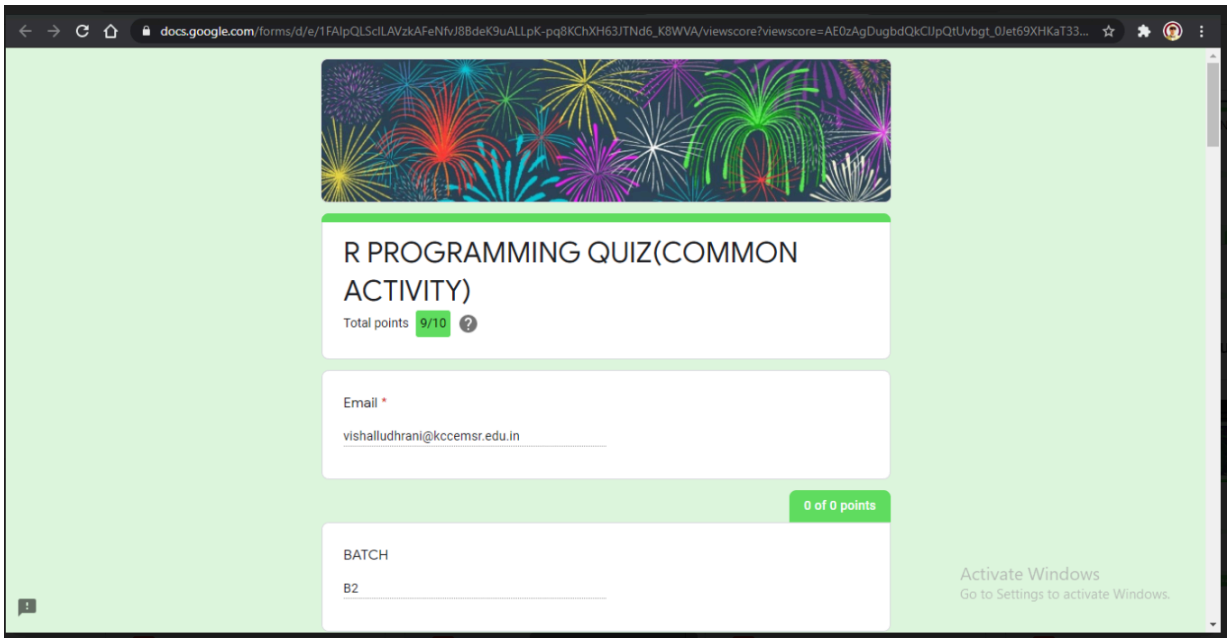
(Year 2020-21)

Sample of attempted quiz:



Links of Quiz: https://forms.gle/482Dxpdmv2SPTjAB9

Prepared by,

A.P.Devika Rani Roy

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INNOVATION IN TEACHING LEARNING

(Year 2020-21)

Class : TE Sem : VI

Subject: Sensor Network Lab

Name of Activity: Virtual Lab

Activity Report: Explanation in One or two paragraph

Wireless Sensor Network is the study of wireless sensors that are distributed in a wide area for sensing the environmental parameters. Wireless Sensor Network Remote Triggered Lab is an experimental wireless sensor network deployed partly indoor and partly outdoor. This lab is envisioned to provide a practical experience of designing, deploying and implementing wireless sensor networks in both indoor and outdoor conditions.

This virtual lab also offer benefits such as reduced software and hardware costs for setting up an actual advanced network technology lab, improved learning by interactive visualization, and self-learning advanced network technologies in the absence of a real-life instructor. Additionally, the students can learn at their own pace any time and from any place which has a PC with high speed Internet connectivity.

Outcome: Study and enhance software/ hardware skills.

Proof: Link/photo etc.

https://vlab.amrita.edu/index.php?sub=78&brch=256

http://vlabs.iitkgp.ac.in/ant/

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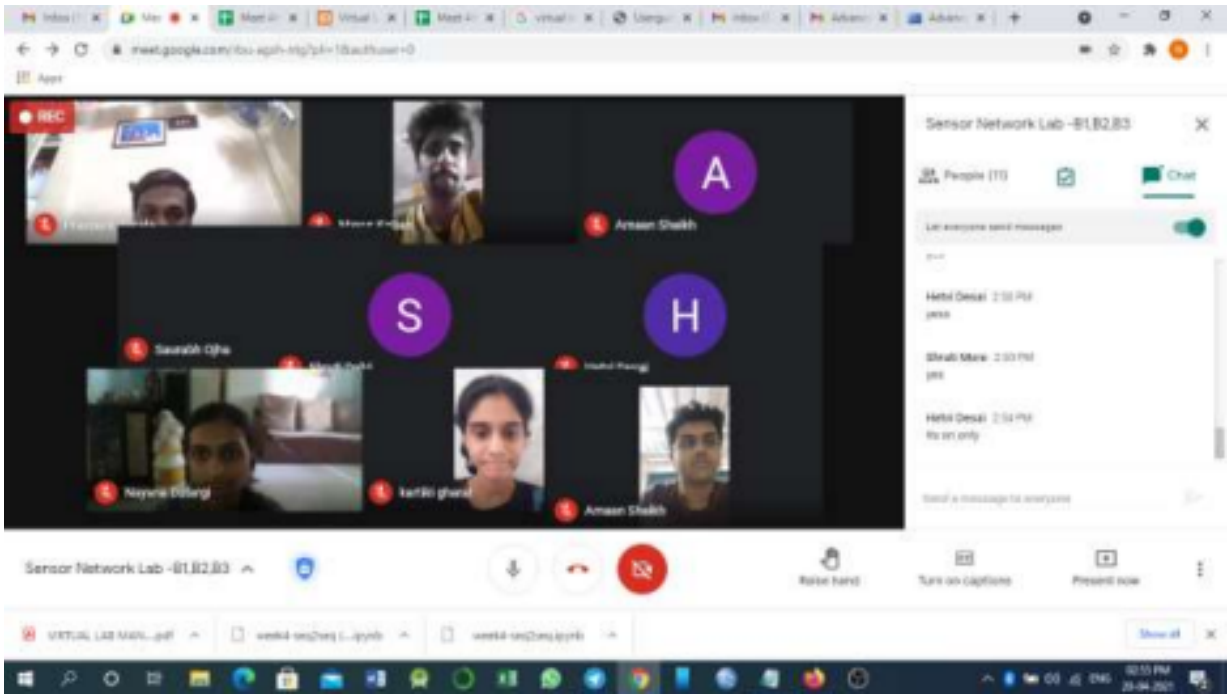

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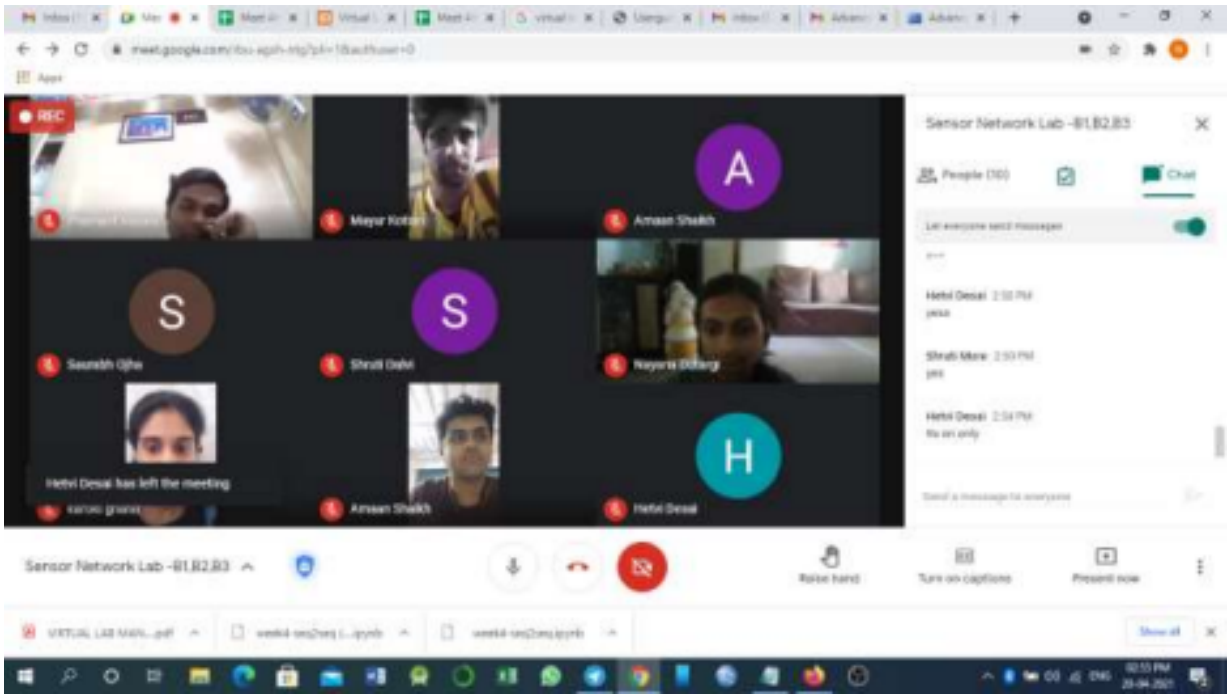

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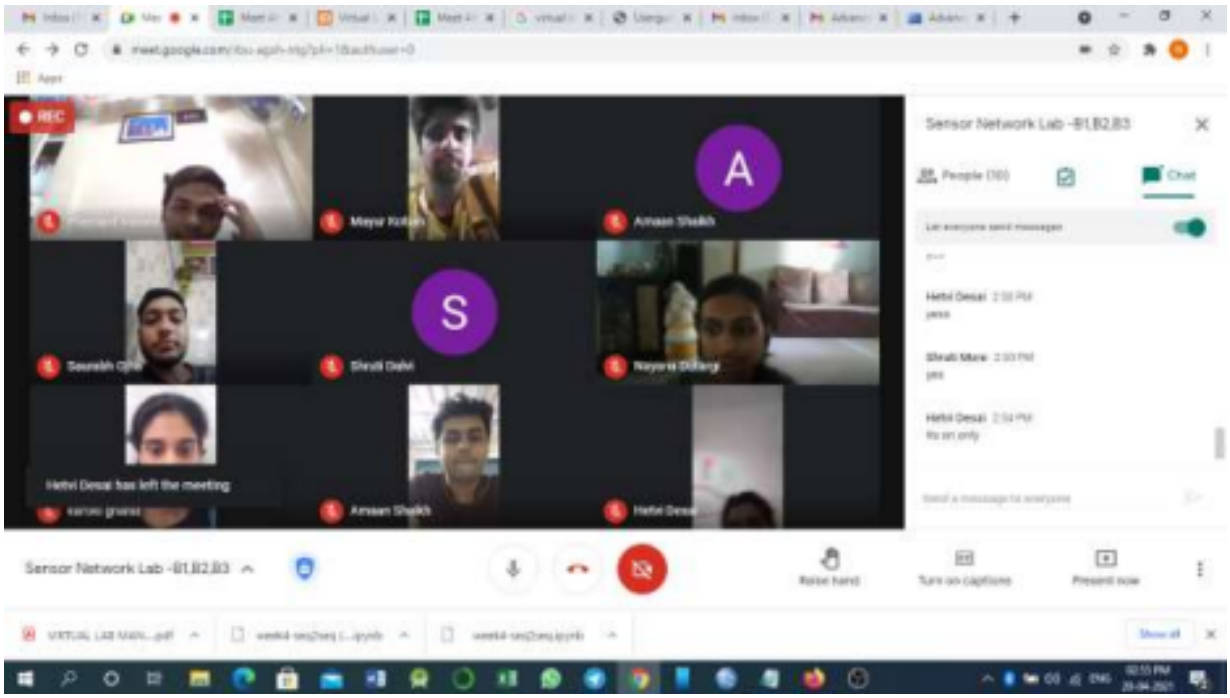

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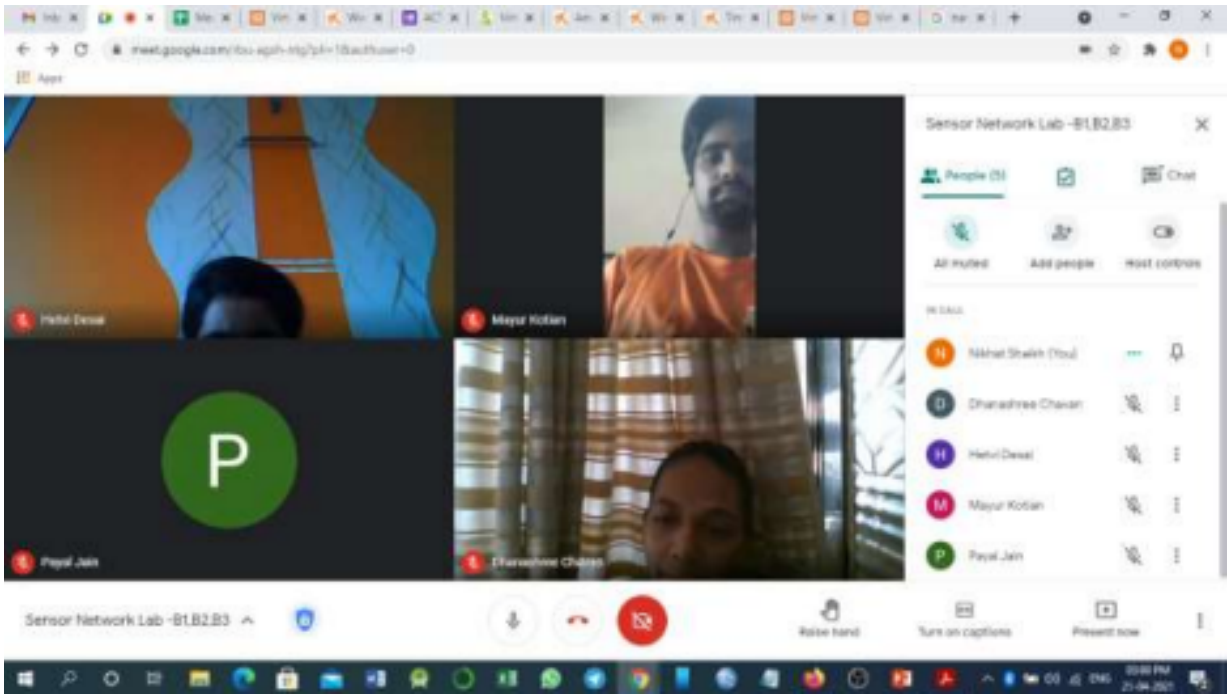

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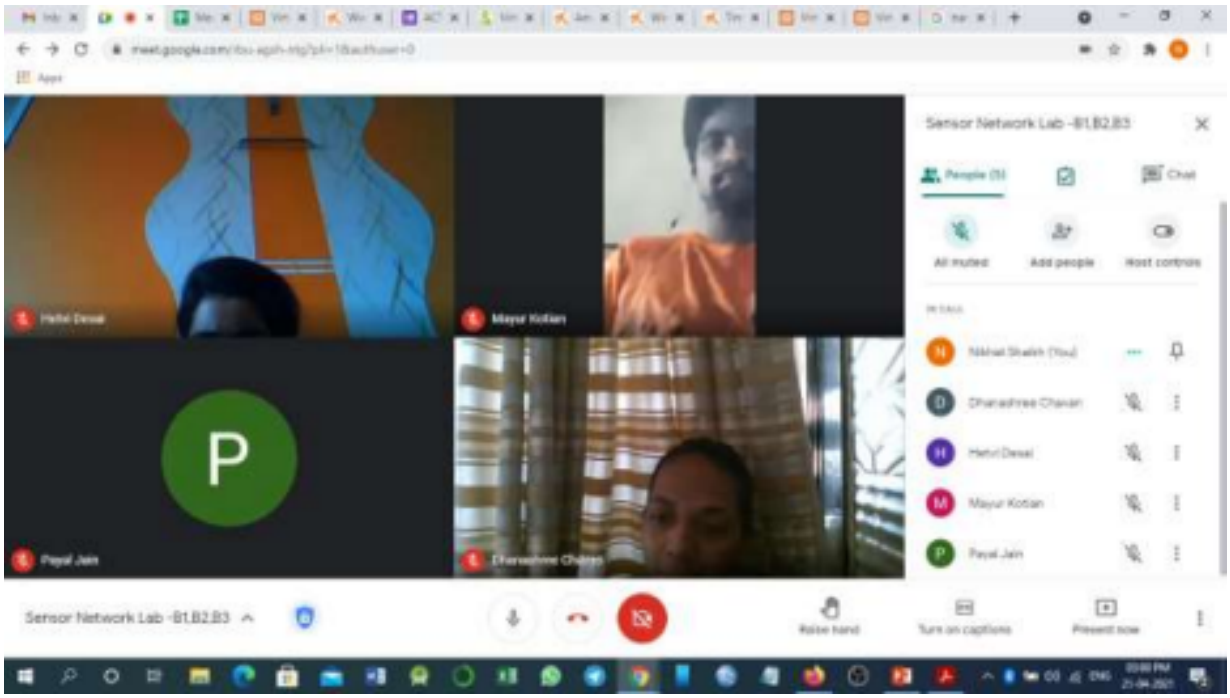

Prepared by,
A.P Nikhat Shaikh

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INNOVATION IN TEACHING LEARNING

(Year 2020-21)

Class : BE Sem : VIII

Subject: UID **Date** : 20th April 2021

Name of Activity: Quiz on UID

Activity Report:

1) **Quiz & Descriptive test conducted in lecture slot**
2) **Conduction of MCQ & Descriptive Questions**
3) **Pattern used for this test is same**
4) **Marks allotted for MCQ – 10 marks (Total 10 questions -each question carry 1 mark)**
   & Descriptive – 10 marks (Total 3 questions, Solve any two – 5 marks each)

Outcome: Students will be able to solve similar type questions in exam.

Proof:

MCQ Questions – 10 Marks :

1) Which of the following is golden rule for interface design?
   a) Place the user in control
   b) Reduce the user's memory load
   c) Make the interface consistent
   d) All of the mentioned

Ans : d

2) Which of the following is not a user interface design process?
   a) User, task, and environment analysis and modeling

b) Interface design
c) Knowledgeable, frequent users
d) Interface validation

Ans. c

3) Which of the following is not a design principle that allow the user to maintain control?
a) Provide for flexible interaction
b) Allow user interaction to be interrupt-able and undo-able
c) Show technical internals from the casual user
d) Design for direct interaction with objects that appear on the screen

Ans . c

4) When users are involved in complex tasks, the demand on _____ can be significant.
a) short-term memory
b) shortcuts
c) objects that appear on the screen
d) all of the mentioned

Ans. a

5) Which of the following option is not considered by the Interface design?
a) the design of interfaces between software components
b) the design of interfaces between the software and human producers and consumers of information
c) the design of the interface between two computers
d) all of the mentioned

Ans. c

6) Which of the following objectives are not the one that the user interface offers?

i. Help user interact with the software.
ii. Give commands and input through the instructions that are displayed via user interface.
iii. To improve the coding skills of the users.

a. All i, ii and iii are correct
b. Only i and ii are correct
c. Only i and iii are correct
d. None of the given options is correct

Ans. b

7) Which of the following statements is true?

i. In the graphical User interface, different information can be simultaneously displayed on the screen.
ii. In the Text-based User interface, different information can be simultaneously displayed on the screen.

a. Only i is true
b. Only ii is true
c. Both i and ii are true
d. None of them is true

Ans. a

8) Which of the following devices are mainly responsible for the user interface?

a. Input and output devices
b. Memory devices
c. Processor
d. None of the above

Ans. a

9) The main function of user-interface is to

a. Convert program/ programs into machine language
b. Transmit data to a remote location
c. Connect users with an application through graphical options like icon, menu, text etc
d. None of these above

Ans. c

10) In which type of interface users provide commands selecting from a menu?

a. GUI
b. CUI
c. Voice Recognition User Interface
d. None of these above

Ans. a

Descriptive Questions – (solve any two - 5 marks) Total 10 marks :

Q.1 Define Evaluation Process ? Explain what is Heuristic Evaluation ?

Answer : Evaluation. What associations does this word bring to mind? Do you see evaluation as an invaluable tool to improve your program? Or do you find it intimidating because you don't know much about it? Regardless of your perspective on evaluation, MEERA is here to help! The purpose of this introductory section is to provide you with some useful background information on evaluation.

Heuristic evaluation (Nielsen and Molich, 1990; Nielsen 1994) is a usability engineering method for finding the usability problems in a user interface design so that they can be attended to as part of an iterative design process. Heuristic evaluation involves having a small set of evaluators examine the interface and judge its compliance with recognized usability principles (the "heuristics").

Heuristic evaluation is performed by having each individual evaluator inspect the interface alone. Only after all evaluations have been completed are the evaluators allowed to communicate and have their findings aggregated. This procedure is important in order to ensure independent and unbiased evaluations from each evaluator. The results of the evaluation can be recorded either as written reports from each evaluator or by having the evaluators verbalize their comments to an observer as they go through the interface. Written reports have the advantage of presenting a formal record of the evaluation, but require an additional effort by the evaluators and the need to be read and aggregated by an evaluation manager. Using an observer adds to the overhead of each evaluation session, but reduces the workload on the evaluators. Also, the results of the evaluation are available fairly soon after the last evaluation session since the observer only needs to understand and organize one set of personal notes, not

a set of reports written by others. Furthermore, the observer can assist the evaluators in operating the interface in case of problems, such as an unstable prototype, and help if the evaluators have limited domain expertise and need to have certain aspects of the interface explained.

Q.2 What is usability testing ?

Answer : Usability Testing also known as User Experience(UX) Testing, is a testing method for measuring how easy and user-friendly a software application is. A small set of target end-users, use software application to expose usability defects. Usability testing mainly focuses on user's ease of using application, flexibility of application to handle controls and ability of application to meet its objectives.

There are many software applications/websites, which miserably fail, once launched, due to following reasons -

- Where do I click next?
- Which page needs to be navigated?
- Which Icon or Jargon represents what?
- Error messages are not consistent or effectively displayed
- Session time not sufficient.

Software Engineering, Usability Testing identifies usability errors in the system early in the development cycle and can save a product from failure.

Q.3 What is ISO standards & rules ?

Answer : **ISO standards**

Standards in usability and user-centred design

This document sets out the key international standards in the area of usability and user-centred design. The main body of standards in this area are those produced by ISO (the International Standards Organisation), to which individual national standards organisations have input. Most

are also adopted as European (CEN) standards. Copies can be obtained from ISO or from national standards bodies.

In addition to standards, there are a large number of guidelines that have been published by individuals and organisations around the world. If designing a particular type of product (e.g. a piece of PC software) it can be worth consulting guidelines specific to that type of product (e.g. Interface design guidelines for Microsoft Windows, or the Apple Desktop). There are also guidelines that provide recommendations concerning accessibility of different types of products and systems for users with disabilities.

Usability and user-centred design standards can be divided up into 3 main categories:

- Product usage characteristics (how well users perform with it, how satisfied they are with it)
- Product interface attributes (design of the interface and interaction)
- Development process (activities carried out during product development)

Some standards (for example, those relating to software in ISO 9241) set out few mandatory requirements but instead set out guidelines and conditional requirements. When using such standards it is particularly important to have a good understanding of the product's context of use, user characteristics, user tasks, user requirements, and so on.

Other relevant standards:

- ISO 6385 Ergonomic principles in the design of work systems
- ISO 11064 Ergonomic design of control centres
- ISO 13406 Flat panel display ergonomic requirements
- ISO TS 16071 Guidance on accessibility of human-computer interfaces
- ISO 14915 Multimedia user interface design - Software ergonomic requirements
- ISO 20282 Ease of operation of everyday products
- ISO/IEC 10741-1 Dialogue interaction - Cursor control for text editing
- ISO/IEC 11581 Icon symbols and functions
- ISO/IEC 15910 Software user documentation process
- ISO/IEC 25062 Common Industry Format (CIF) for usability test reports

- ISO/IEC 62366 Application of usability engineering to medical devices

TestLink:
https://docs.google.com/forms/d/e/1FAIpQLSfbr21ZNz0oAt47bzVa577xsvraTSsDVExWtkhAoi2zy_UaIA/viewform?usp=sf_link

Recorded Session Link :

https://drive.google.com/file/d/1MKl_Z31ZHHPYhIdmuP4sc1vwOEZ8FVNv/view?usp=sharing

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