



Classync - Virtual Classroom Platform

Black-Box Testing Report
Group - 33

Course: Software Engineering
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Team Members:

Role	Name (ID)
Team Leader	ATIK VOHRA - 202301447
Member	KANANI TANUJ - 202301474
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Member	BADRESIYA ANSH - 202301477
Member	PREM KUKADIYA - 202301452
Member	RAMOLIYA SHUBHAM - 202301442
Member	GAJERA MANTHAN - 202301488

Create Your Account (page)

Equivalence Class Partitioning :

1) Valid Email Format Class:

- > Already created account email
- > New email entered

2) Blank/Unfill Input Class :

- > No Input Provided

3) Invalid Email Format Class :

- > Missing characters and improper order

Equivalence Class	Type	Test case	Expected Outcome	Actual outcome
Valid Email Format	Valid	User6122005@gmail.com	Accept and move	Accept
Empty Email	Invalid	“ ”	blank	Please fill out the form
Invalid Email(missing @)	Invalid	Usergmail.com	Error	Please Include @ in email provided
Valid email (already exists)	Valid	User@dau.ac.in	Error	Already Email registered

Complete Registration

Equivalence Class Partitioning :

1) Password

- > Input value less than 6 values
- > Input value above than 6 values
- > Input value only Alphabet or only Number
- > Input value contains alphabet and numbers

2) Confirm Password

- > Input same as password field
- > Input Different as password field

3) Role selection

- > Student login
- > Instructor Login

Password	Confirm Password	Role	Expected Outcome	Actual Outcome
abcc	abcc	student	Password too short	Password too weak must be atleast 6 values
Useruser	user	student	Passwords not matched	Password do not match try again
Useruser	Useruser	instructor	Password too weak use numericals	Password too weak must have numericals and alphabet
User612	User612	student	Succesfull	Successful (Student dashboard)
qwerty123	qwerty123	Instructor	Succesfull	Successfull (Enter Instructor code)

Boundary Value Analysis :

1) Password :

- > Password is empty
- > Password is not Empty

2) Confirm Password :

- > Confirm password is empty
- > Confirm password is not Empty

Password	Confirm Password	Expected Outcome	Actual Outcome	Reason
User123		Invalid	Invalid	Confirm password field empty
	User123	Invalid	Invalid	Password field empty
qwerty123	qwerty123	valid	valid	Logged in

Create New Course

Equivalence Class Partitioning :

1. Course Name :
 - > Non-Empty string
 - > Empty string
2. Description :
 - > Non - empty string
 - > Empty string
3. Subject :
 - > Non-empty string

Course Name	Description	Subject	Expected Output	Actual Output	Create Button	Reason
Intro to AI	Basic concepts of AI	Computer Science	Valid	Valid	Enabled	All fields are Valid
	Basic concepts of AI	Computer Science	Invalid	Invalid	Disabled	Course Name is empty
Intro to AI		Computer Science	Invalid	Invalid	Disabled	Description is empty
Intro to AI	Basic concepts of AI		Invalid	Invalid	Disabled	Subject is empty

Boundary Value Analysis :

1. Course Name
 - > Empty String As Input
 - > Single Character (Min length)

2. Description

-> Empty String as Input

-> Single Character (Min length)

3. Subject

-> Empty String as Input

-> Single Character (Min Length)

Course Name	Description	Subject	Expected Output	Actual Output	Create Button	Reason
A	B	C	Valid	Valid	Enabled	All fields have minimum valid length
	B	C	Invalid	Invalid	Disabled	Course Name is empty
A		C	Invalid	Invalid	Disabled	Description is empty
A	B		Invalid	Invalid	Disabled	Subject is empty

Create Assignment

Equivalence Class Partitioning :

1. Course Selection

- > Course Selected
- > No Course Selected

2. Assignment Title

- > Non-empty string
- > Empty string

3. Description

- > Non-empty string
- > Empty string

4. Deadline

- > Future Date/Time
- > Past Date/Time (Logically invalid, though system might allow)
- > Empty

5. Max Score (Optional)

- > Positive Number
- > Negative Number
- > Non-numeric

6. File (Optional)

- > Supported Format (.pdf , .doc , .docx , .txt .zip)
- >Unsupported Format (e.g., .exe, .bat)

Course	Title	Description	Deadline	Max Score	File	Expected Output	Actual Output	Create Button	Reason
SE-101	Lab 1	Complete the lab	2025-12-31	100	lab.pdf	Valid	Valid	Enabled	All fields are Valid
	Lab 1	Complete the lab	2025-12-31	100	-	Invalid	Invalid	Disabled	Course not selected
SE-101		Complete the lab	2025-12-31	100	-	Invalid	Invalid	Disabled	Title is empty
SE-101	Lab 1		2025-12-31	100	-	Invalid	Invalid	Disabled	Description is empty
SE-101	Lab 1	Complete the lab		100	-	Invalid	Invalid	Disabled	Deadline is empty
SE-101	Lab 1	Complete the lab	2025-12-31	-50	-	Invalid	Invalid	Disabled	Max Score is negative
SE-101	Lab 1	Complete the lab	2025-12-31	100	game.exe	Invalid	Invalid	Disabled	File type not supported

Boundary Value Analysis :

1. Assignment Title

-> Empty String as Input

-> Non-empty (1 char)

2. Max Score

->0 (Min valid)

-> -1 (Just below min) - Invalid as score must be positive

->1 (Just above min)

3. Deadline

->Current Time (Immediate)

AI -BUBBLE

Equivalence Class Partitioning :

1) Chat Bar :

- > Input Questions based on General Conversations
- > Input Questions which are non educational oriented
- > Input Questions Mathematical Expressions
- > Input Questions which are educational oriented
- > Input as Meaningless String

Boundary Value Analysis:

1) Chat Bar :

- > Empty String as input
- > Non Empty string

Input Message	Expected Output	Actual Output	Send Button	Reason
aaaaaa	Not a valid message	Unable to answer	Enabled	Meaningless string
Who is president of India	Valid Answer	Valid Answer	Enabled	Educational oriented question
Who is trending celeb in 2025	Not an Educational question	Not an Educational question	Enabled	It is not educational oriented question
	Invalid		Disabled	No input string
5 mod 2	1	1	Enabled	Mathematical Equation

Hi what's Your Name	Not a Valid Message	Not able to answer such Questions	Enabled	General conversations
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AI-Doubt Solver

Ask a Tutor

Equivalence Class Partitioning :

1) Topic / Subject Bar:

- > Valid Subject or Topic name as input
- > Random Input value(eg - random string)
- > Non educational Topics

2) Question Bar :

- > Valid Question statements Educational oriented
- > Random String as Input
- > Non Educational Question

Boundary Value Analysis :

1) Topic /Subject Bar :

-> Empty string as Input

-> Non Empty string as Input

2) Question Bar :

-> Empty string as Input

-> Non Empty string as Input

Topic Bar	Question Bar	Expected Output	Actual Output	Reason
Machine learning	What is supervised and unsupervised learning	Valid Answer	Valid Answer	Both Input are accurate in their terms
Movies	What is partitioning in data organization	No Response	Answer to provided question giving warning of false/unrelated topic	Question asked is educational so it is answered but has no match to topic
Cricket	ICC world Champions 2025?	No Response	No Response	Non educational Question
“ ”	What is supervised learning	No Response	No Response	Topic field is empty
Machine Learning	“ ”	No Response	No Response	Topic field is empty
aaaaaa	afdfefafef	No Response	No Response	No meaningful question asked

AI-Summary Generator

Equivalence Class Partitioning :

1) Uploaded File :

-> File type is - Docx ,Txt

-> File type is of formats other than mentioned

2) Grade / Branch :

-> Valid branch name or grades from 1-12

-> Non valid Names or strings

3) Summary Type :

-> Selection from given options Quick,Detailed Summaries

-> Examples & Practice Questions

Boundary Value Analysis :

1) Uploaded File :

-> No Selected File

-> Selecting a file

2) Branch/Grade :

-> Empty string as input

-> Non empty string as Input

File Uploaded	Branch / Grade	Summary type	Expected Outcome	Actual Outcome	Reason
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abc.txt	Computer science	Quick	Valid Summary	Valid Summary	All conditions are satisfied
abc.exe	Computer science	Quick	Not valid Filetype	Not valid Filetype	File format not supportive
	Computer Science	Quick	Error	File not Selected	File is not selected
abc.docx	aaaaaaa	Quick	Invalid	Summary Generated with response to provide valid input	Branch is an non meaningful input
abc.docx	Computer science	Examples	Valid Output	Valid Examples for that topic	User selected examples as summary type

Assignment Submission

Equivalence Class Partitioning :

1) Uploaded File:

-> File type is - Docx ,Txt PDF , ZIP, Images, code files

-> File type is of formats other than mentioned

2) Deadline Filter :

-> Select date from Given Calender

-> No Date Selected (default)

3) Course :

-> Select Course User Enrolled in

-> No Selection (Default - ALL course)

Boundary Value Analysis :

1) Upload File :

-> No Selected File

-> Selecting a file

File	Submit Button	Expected Output	Actual Output	Reason
abc.pdf	Enabled	Submitted	Submitted	No condition unmatched
	Disabled	No output	No output	File not selected
abc.exe	Enabled	Not Submitted	Not Submitted	File type not mentioned by Instructor

Acceptance Testing

1. Create Account Page

Email : 202301430@dau.ac.in

Password : jay

Confirm Pass : jay

Output : Valid

×

Complete Registration

Email verified successfully! Now complete your registration.

Email (Verified)

202301430@dau.ac.in

Password

jay

Confirm Password

...

Role

Student

Sign up

[Use Different Email](#)

[Already have an account? Login](#)

[Back to Home](#)

Email : 202301430@dau.ac.in

Password : jay

Confirm Pass : jay Output : Invalid

×

Complete Registration

Password is too weak. Please use at least 6 characters with a mix of letters and numbers.

Email (Verified)

202301430@dau.ac.in

Password

...

Confirm Password

...

Role

Student

Sign up

Use Different Email

Already have an account? Login

Back to Home

Email : 202301430@dau.ac.in

Password : jay6121222

Confirm Pass : jay

Output : InValid

×

Complete Registration

Passwords do not match. Please try again.

Email (Verified)

202301430@dau.ac.in

Password

.....

Confirm Password

...

Role

Student

Sign up

Use Different Email

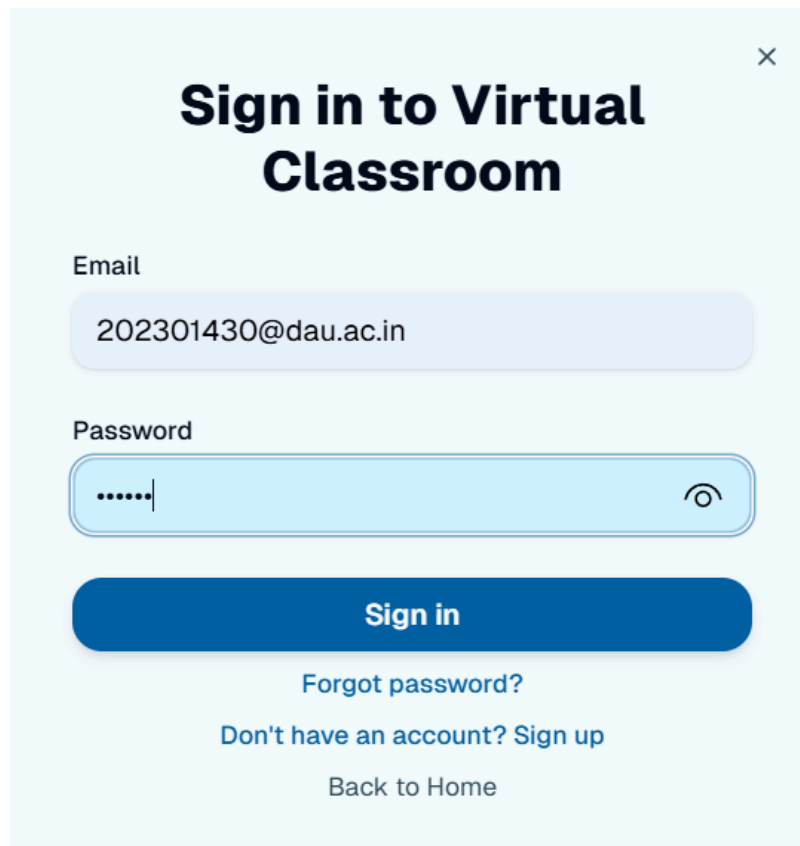
Already have an account? Login

Back to Home

2) Login Page :

Email: 202301430@dau.ac.in

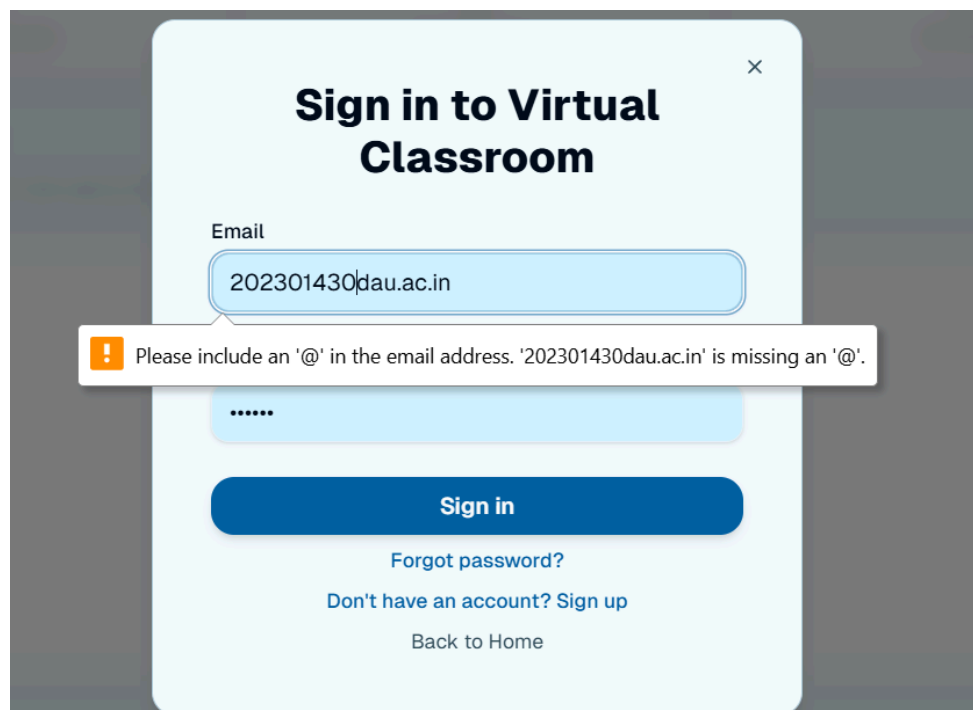
Pass : jay612



A screenshot of a web login form titled "Sign in to Virtual Classroom". The form has a light blue background and a close button (X) in the top right corner. It contains two input fields: "Email" with the value "202301430@dau.ac.in" and "Password" with masked characters ".....". Below the password field is a "Sign in" button. Underneath the button are three links: "Forgot password?", "Don't have an account? Sign up", and "Back to Home".

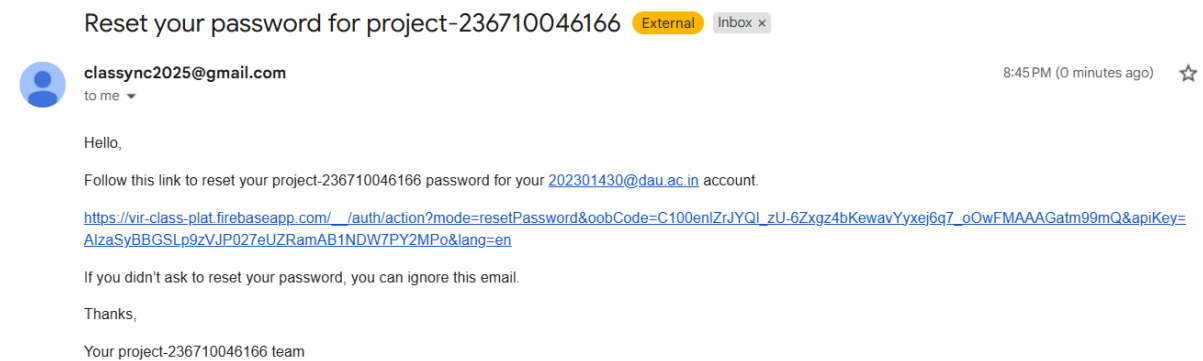
Email : 20231430dau.ac.in (@ missing)

Pass: jay612



A screenshot of the same "Sign in to Virtual Classroom" login form, but with an error message displayed. The "Email" field contains "202301430dau.ac.in". A white error box with an orange exclamation mark icon is overlaid on the form, containing the text: "Please include an '@' in the email address. '202301430dau.ac.in' is missing an '@'." The rest of the form, including the password field, "Sign in" button, and links, remains visible.

3) Forget Password :

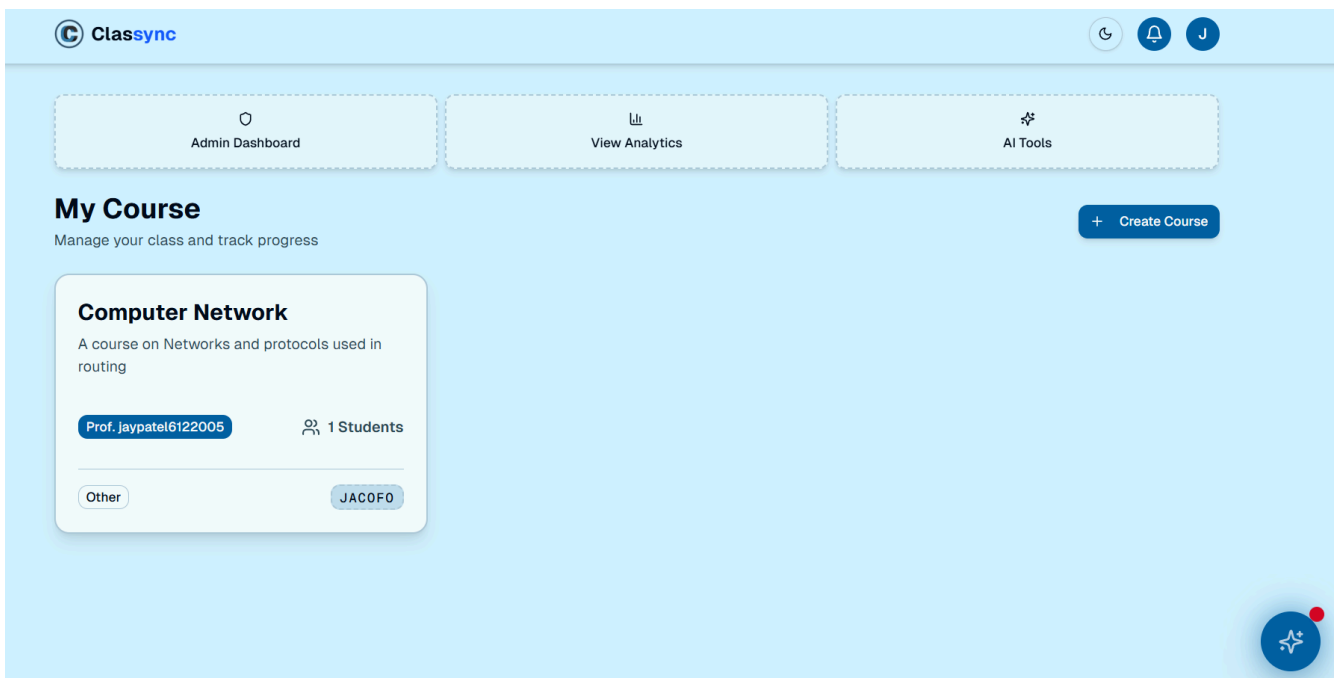


After Successfull Login to Student profile :

Student Dashboard :

The screenshot shows the Classsync student dashboard. At the top, there's a navigation bar with the Classsync logo, a user profile icon, a notification bell with 9 alerts, and a badge with the number 2. Below the navigation bar are three main sections: "Assignments", "My Progress", and "AI Tools". The "My Course" section is prominently displayed, featuring three course cards: "Software Engineering", "Nanotechnology", and "Digital Communication". Each card shows the course title, a brief description, the professor's name (Prof. Atik Vohra), the number of students (7, 5, and 3 respectively), and a progress bar indicating 0/1 or 0/0 completion. Below each course card are tags for the subjects (Computer Science, Physics, Chemistry) and a button to "Unenroll". A floating action button with a star icon is visible in the bottom right corner.

After Successfull login to Instructor Dashboard :



4) Create Course :

Course Name : IOT

Description : Welcome.....

Subject : Computer Science

Output : Valid

Create New Course

Set up a new classroom for your students

Course Title

Description

Subject

Computer Science ▾

CancelCreate Course

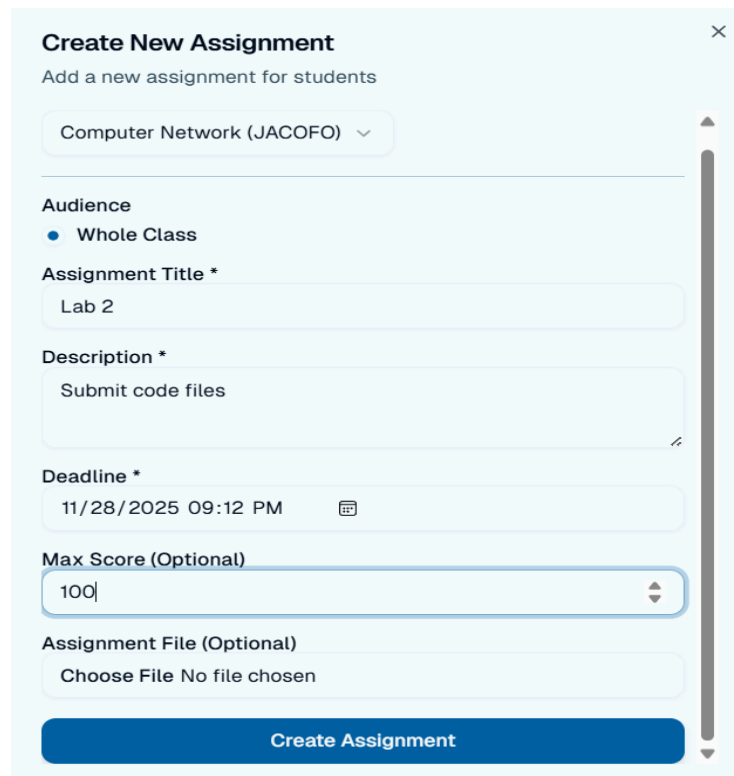
5) Create Assignment :

Course : Computer Network

Title : Lab 2

Description -Submit code files

Deadline : 11/28/2025



Create New Assignment ×

Add a new assignment for students

Computer Network (JACOFO) ▾

Audience

☒ Whole Class

Assignment Title *

Lab 2

Description *

Submit code files

Deadline *

11/28/2025 09:12 PM 📅

Max Score (Optional)

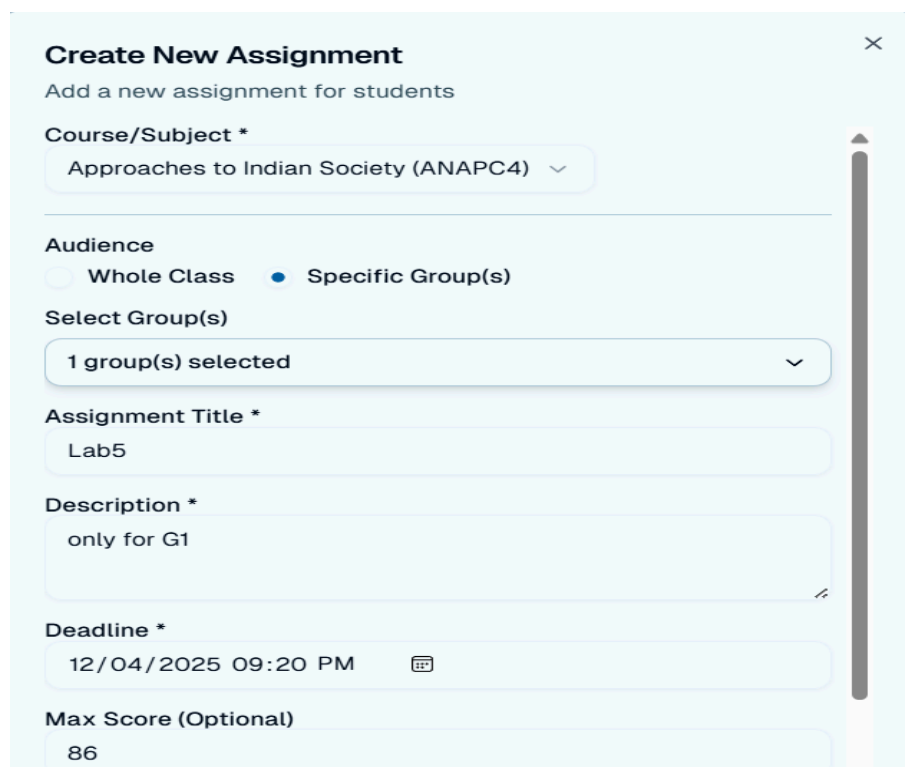
100

Assignment File (Optional)

Choose File No file chosen

Create Assignment

Group Specific Assignments



Create New Assignment ×

Add a new assignment for students

Course/Subject *

Approaches to Indian Society (ANAPC4) ▾

Audience

☐ Whole Class ☒ Specific Group(s)

Select Group(s)

1 group(s) selected ▾

Assignment Title *

Lab5

Description *

only for G1

Deadline *

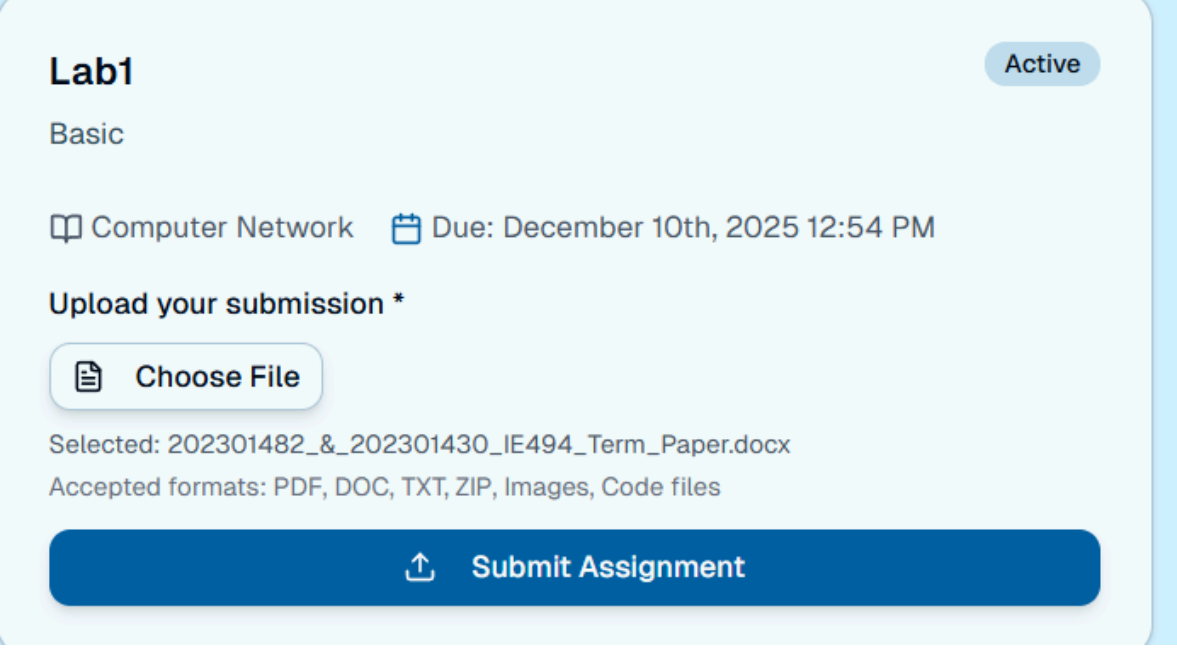
12/04/2025 09:20 PM 📅

Max Score (Optional)

86

6) Assignment Submission :

File Submitted



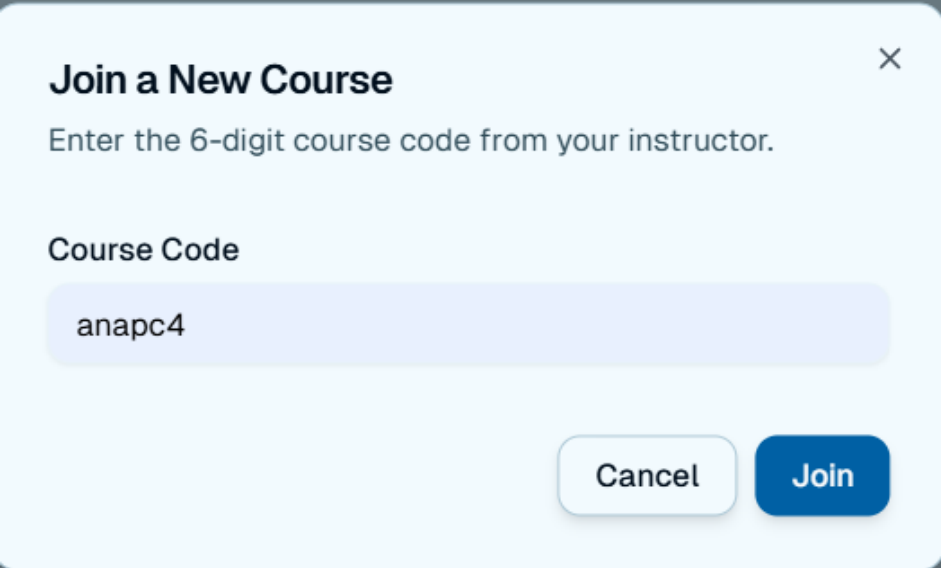
The screenshot shows the 'Lab1' assignment submission page. At the top right, there is an 'Active' status badge. Below the title, the word 'Basic' is displayed. The course is identified as 'Computer Network' with a calendar icon, and the due date is 'Due: December 10th, 2025 12:54 PM'. A section titled 'Upload your submission *' contains a 'Choose File' button with a document icon. Below this, the text 'Selected: 202301482_&_202301430_IE494_Term_Paper.docx' is shown, followed by 'Accepted formats: PDF, DOC, TXT, ZIP, Images, Code files'. At the bottom, a large blue button with an upload icon and the text 'Submit Assignment' is visible.

7) Join Classroom :

Code : anapc4

Code : ANAPC4

(both written code are valid here)



The screenshot shows a 'Join a New Course' dialog box with a close button (X) in the top right corner. The instruction 'Enter the 6-digit course code from your instructor.' is displayed. Below this, the label 'Course Code' is followed by a text input field containing the code 'anapc4'. At the bottom right, there are two buttons: 'Cancel' and 'Join'.

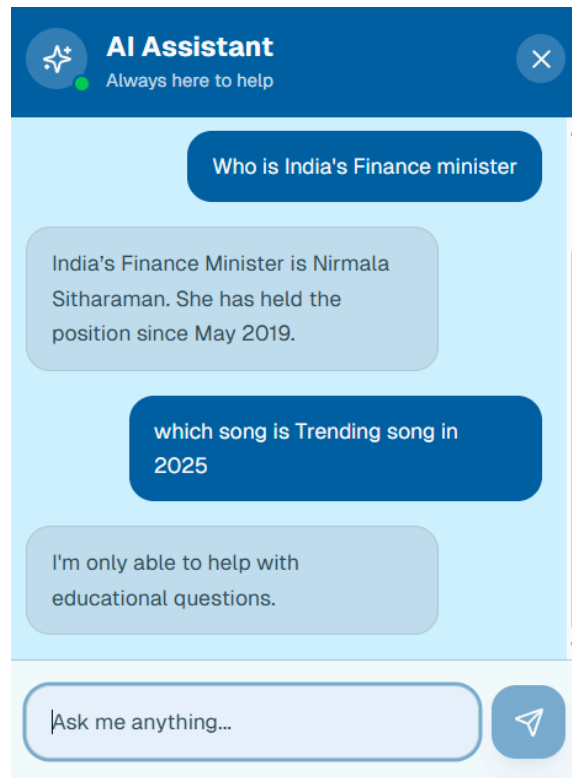
8) Ai Bubble :

Input : Educational conversations

Output :Valid response

Input : Non Educational Conversation

Output : No Response



9) AI Summary Generator :

Input : File not Uploaded

Output: Please Upload a file

A screenshot of a web form for an "AI Summary Generator". The form has a light blue background. It starts with a section "Upload your file" with a document icon, stating "Supported formats: DOCX, TXT". Below this is a dashed box containing a "Choose File" button and the text "No file chosen". The next section is "What's your grade or branch?" with a graduation cap icon, asking to "Help us customize the summary for you". Below this is a text input field containing "Data Science". The third section is "How do you want your summary?" with a gear icon, showing a dropdown menu with "Quick overview (5 min read)" selected. At the bottom of the form is a large blue button with a star icon and the text "Generate Summary". A red banner at the very bottom contains a warning icon and the text "Please upload a file before submitting."

Input : File Uploaded

Output : Successful Summary Generated

Choose File202301482_&_202301430_IE494_Term_Paper.docx

✓ Selected: 202301482_&_202301430_IE494_Term_Paper.docx

📚 What's your grade or branch?

Help us customize the summary for you

Data Science

⚙️ How do you want your summary?

📄 Quick overview (5 min read) ▾

🔥 Generate Summary

📄

Your summary

Brief Summary of Study Report on PBSTs in Spark-SQL

The study report examines how to enhance query performance in distributed data warehouses, especially when using Spark-SQL. It introduces a method called PBSTs (Partition, Bucket, and Sort the Tables) to optimize data layout. The approach utilizes frequent itemset mining to identify commonly used attributes in queries, which helps in deciding how to partition and organize data effectively. The authors claim that their method can improve query response times by up to 50% compared to traditional partitioning techniques.

Key Points

1. **Motivation**: Large data scans in distributed systems like HDFS slow down query processing. Efficient data layout is crucial for fast insights.

10) AI-Doubt Solver :

Input : Subject not mentioned

Output : Give both input values

💡 Ask a Question


Enter topic (e.g., Physics, Math, History)


what is supervised learning


🚀 Get Answer

Please enter both topic and question

Input : Both Input Values are given
Output: Valid answer to provided Question

 **Ask a Question**

 **Get Answer**

 **Answer**

Copy

Introduction

Machine learning is a subset of artificial intelligence that involves the use of algorithms and statistical models to enable machines to perform a specific task without using explicit instructions. One of the key categories of machine learning is supervised learning, which is a fundamental concept in the field. In this explanation, we will delve into the world of supervised learning, exploring its definition, how it works, and providing examples to illustrate its application.

Main Explanation

Supervised learning is a type of machine learning where the algorithm is trained on labeled data. This means that the data used for training is already tagged with the correct output, allowing the algorithm to learn from the examples and make predictions on new, unseen data. The primary goal of supervised learning is to map inputs to outputs based on the labeled data, enabling the model to generalize and make accurate predictions. The process involves several steps, including data collection, data preprocessing, model selection, training, and evaluation. Common supervised learning algorithms include linear regression, logistic regression, decision trees, random forests, and support vector machines.

Example(s)

A classic example of supervised learning is image classification. Imagine you want to train a model to distinguish