

## DEPARTMENT OF INFORMATION TECHNOLOGY

### Technology-Enabled Collaborative Projects

**Course:** Cloud Computing

**Faculty:** Ms. V. Nivi

**Class:** V Semester

**Academic Year:** 2023–2024

**Teaching Method:** Technology-Enabled Collaborative Projects

**Objective:** To promote teamwork in a virtual setting

**Topic:** Deployment Models in Cloud Computing

**Date:** 21.08.23

**No of Students Participated:** 49

### Description of the Method

This teaching method integrates collaborative project-based learning with gamified quizzes to enhance students' engagement, teamwork, and practical understanding of cloud computing concepts. Students work in virtual teams using Google Docs for discussion/documentation and GitHub for version control and project implementation.

Gamified quizzes are used at checkpoints to reinforce conceptual understanding and reward progress through badges, levels, and leaderboards.

### Objectives of the Method

1. To promote teamwork and collaboration in a virtual learning environment.
2. To strengthen students' understanding of cloud deployment models through hands-on documentation and code-based examples.
3. To improve proficiency in industry-standard cloud tools such as GitHub for version control.
4. To encourage critical thinking and creativity using project-based tasks.
5. To enhance learner motivation through gamification elements.

#### 1. Google Docs

- Shared documentation
- Collaborative editing
- Real-time feedback
- Brainstorming sessions

#### 2. GitHub

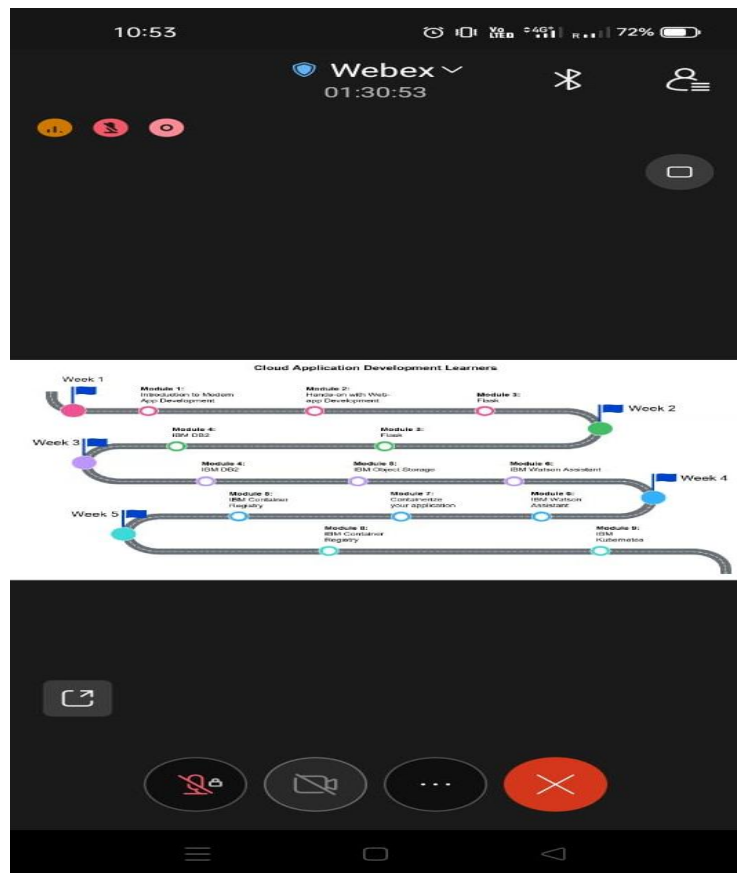
- Repository creation
- Version control

- Branching and merging
- Code reviews
- Project submission

## Implementation Procedure

### Formation of Virtual Teams

- Students were divided into teams of 4–5 members.
- A team leader was selected for task delegation and communication.



Used Webex smart video conferencing for the collaborative Project by students on 21.08.23

## Project Assignment

Each team received a mini project based on Cloud Deployment Models, such as:

- Case study on Public Cloud providers
- Architecture model for Private Cloud in an enterprise
- Comparative analysis of Hybrid vs. Community Cloud
- GitHub-hosted documentation of deployment diagrams

## Collaborative Work on Google Docs

Teams used Google Docs to:

- Define problem statements
- Share research findings
- Add diagrams and references
- Compile final project documentation

Teacher provided comments directly on the document.

### **Version Control Using GitHub**

Teams created a repository containing:

- Documentation files
- Diagrams
- Code snippets (if applicable)
- ReadMe files explaining their deployment model

Students practiced:

- Forking
- Pull requests
- Branching
- Code merging

### **Gamified Quiz Checkpoints**

Three short quizzes were conducted using images, scenario questions, and leaderboard scoring.  
Quiz topics:

1. Basics of cloud computing
2. Deployment and service models
3. Case-based deployment selection

Gamification elements:

- **Badges:** Cloud Architect, Collaborator, Deployment Expert
- **Levels:** Beginner → Intermediate → Advanced
- **Leaderboard:** Updated at each quiz

### **Final Project Presentation**

Each team presented:

- Their Google Docs summary
- GitHub repository
- Cloud deployment diagrams
- Team contribution summary

Presentations were evaluated using a rubric (teamwork, clarity, technical content).

### Outcomes of the Method

- Students actively collaborated and improved team communication skills.
- Enhanced understanding of cloud deployment models through hands-on examples.
- Increased familiarity with GitHub workflows, preparing students for industry expectations.
- Gamified quizzes boosted motivation and helped students retain cloud concepts effectively.
- Teams demonstrated higher creativity in designing cloud architectures.

### Conclusion

This innovative teaching method successfully integrated collaboration, gamification, and cloud-based tools to enhance student engagement and mastery of cloud computing concepts. The combination of Google Docs, GitHub, and gamified quizzes created a dynamic, interactive, and industry-relevant learning experience for V semester students.

### LIST OF STUDENTS ATTENDED

#### III YR STUDENTS LIST

S.NO	REGISTER NO	STUDENTS NAME
1.	312821205001	Aravind R
2.	312821205002	Aravinth R
3.	312821205003	Ashika Jubi S
4.	312821205004	Dharshan K
5.	312821205005	Dinakaran Sa
6.	312821205006	Gokulakrishnan M
7.	312821205007	Gowtham G
8.	312821205008	Gowtham M
9.	312821205009	Harini V
10.	312821205010	Jagadeesh D
11.	312821205011	Jerlin Ida J
12.	312821205012	Jeshina K
13.	312821205013	Karthikeyan S
14.	312821205014	Keerthana V
15.	312821205015	Kirubanithi S
16.	312821205016	Lakshmi Priya P
17.	312821205017	Mahima Sree S
18.	312821205018	Mohamed Alifdeen R
19.	312821205019	Mohamed Ruwaid A
20.	312821205020	Monesha G

21.	312821205021	Nandha Kumar A
22.	312821205022	Nanthini Priya R
23.	312821205023	Neha M
24.	312821205024	Nethaji M
25.	312821205025	Nishaanth S
26.	312821205026	Pradeep Kumar Y
27.	312821205027	Prashanth B
28.	312821205028	Praveen M
29.	312821205029	Preethi M
30.	312821205030	Premlatha S
31.	312821205031	Pugazhenth D
32.	312821205032	Rahul N
33.	312821205033	Ramkumar K S
34.	312821205034	Ramya Devi P
35.	312821205035	Rexlin Felix S
36.	312821205036	Rukmangathan D
37.	312821205037	Santhosh G
38.	312821205038	Saran S K
39.	312821205040	Sasikumar R
40.	312821205041	Silambarasan M
41.	312821205042	Sivaranjini R
42.	312821205043	Siva Saradhe R
43.	312821205045	Sri Ranjani K
44.	312821205046	Surya Prakash S
45.	312821205047	Tarun S
46.	312821205048	Venu Aravind M
47.	312821205301	Karan Kumar B
48.	312821205302	Kotipatruni Tirumala Rao
49.	312821205303	Vishal B

*Nivi*

Course Handling Faculty

*Atul*

HOD

Feedback Link: <https://forms.gle/VQxuyq4u4h47Vkt6>

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