



Department of Information Technology

Academic Year 2025 – 2026 (Odd Semester)

Degree, Semester & Branch : V Semester-B. Tech Information Technology

Course Code & Title : IT3501 Full Stack Web Development

Name of the Faculty member (s) : S. Sakkaravarthi, AP/IT

Innovative Practice Description

- **Unit / Topic** : Unit 5 / Express REST API
- **Course Outcome** : CO5
- **Topic Learning Outcome:** TLO21
- **Activity Chosen** : One Minute Paper
- **Justification:**
 - The one-minute paper is a brief activity that encourages students to reflect on what they have learned and identify any concepts that remain unclear.
 - This activity is chosen to help students summarize the essential ideas behind building REST APIs using Express and to encourage quick recall of how routes, HTTP methods, and responses work in Express.
- **Time Allotted for the Activity:** 5 Minutes
- **Details of the Implementation:**
 - The faculty introduced how REST APIs are developed and managed using the Express framework in Node.js, highlighting its ease of use, flexibility, and efficiency.
 - After explaining the concepts and addressing student questions, the faculty asked students to summarize the key points and implement a simple Express REST API program, as shown in Figure 1.
 - The papers were collected and assessed for correctness, as shown in Figure 2.
- **CO – PO / PSO mapping:**

CO	PO1	PO2	PO3	PO9	PO10	PSO1
CO5	3	2	2	2	1	3

(1 – Low 2 – Moderate 3 – High)



• **PO / PSO mapped:**

Innovative practice	PO1	PO2	PO3	PO9	PO10	PSO1
	3	2	2	2	1	3
Justification for correlation	Students will be able to understand the concept of Express REST API and apply it to handle routing in web applications	Students will be able to design and implement simple Node.js programs using Express to handle HTTP requests.	Students will develop server-side applications integrating RESTful APIs effectively.	Students enhance their programming and problem-solving skill individually on REST API development.	Students will be able to document and communicate their API design and implementation clearly.	The skills acquired in building Express REST APIs help students tackle real-world server-side programming problems.

• **Images / Screenshot of the practice:**

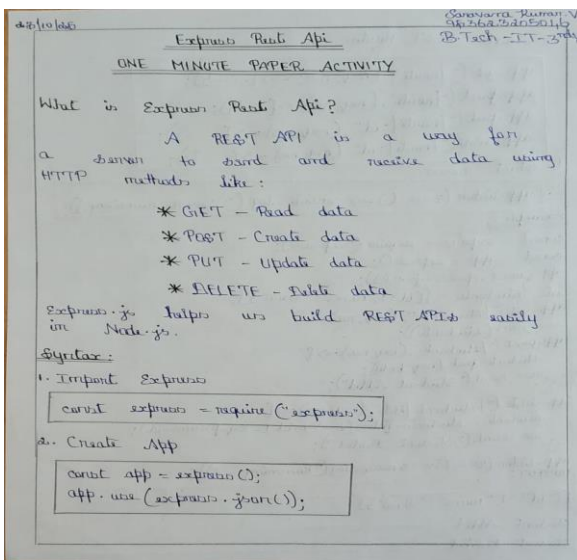


Fig 1: Sample Sheet of Activity of Student Saravana kumar V

Fig 2: One Minute Paper Activity

Reflective Critique:

❖ **Feedback of practice from students and other stakeholders:**

- Students stated that the activity helped them retain the fundamental ideas of Express REST API, including routes, HTTP methods, and response handling.



- Students mentioned that the activity helped consolidate their understanding of prior lessons and enhanced their ability to learn independently.
- The activity enabled students to better understand how to create and manage REST API endpoints using Express.

❖ ***Benefit of the practice:***

- Students quickly summarize what they learned about REST routes, HTTP methods, and Express syntax, strengthening short-term memory.
- Students think critically about how Express REST APIs work, helping them connect theory with actual coding practices.
- Students actively participate at the end of the session instead of passively listening, improving overall involvement.

❖ ***Challenges faced in implementation:***

- Some students struggled to note key points because of the short time available.
- Few students made mistakes while writing the routing endpoints in Express REST APIs.

In the next class, I addressed the students how to write routing endpoints in Express REST APIs with examples.

References:

- https://www.tutorialspoint.com/the_full_stack_web_development/index.asp
- https://www.ritrjpm.ac.in/images/B.Tech-IT/2024-2025/VA_CS3452_OneMinutePaper.pdf

Signature of Faculty Member

HOD