



Report on Faculty Development Programme on 29-06-2026 to 1st July 2026

FDP Schedule for COHORT E16 & E27 Faculty members

- **29th June 2026 (Monday) – 1st July 2026 (Wednesday)**
- **6th July 2026 (Monday) – 8th July 2026 (Wednesday)**

Time: 10:00 AM – 12:30 PM

Venue: Rose Hall

Mode: Online (Resource Person will conduct the sessions through Microsoft Teams)

Presenter & Mentor: Sidharthan Rajendran

Meeting Link:

<https://teams.microsoft.com/meet/46376149466299?p=0mC6aih3JZbUiiKWr7>

Dear Faculty Members

COHORT E16 & E27 Faculty members included in BCC.

This is to inform you that a **Faculty Development Program (FDP) on Service-Oriented Architecture (SOA) Programming & Microservices** has been organized for all **COHORT E16 faculty members** with the objective of enhancing knowledge and practical skills in modern enterprise application development.

Please note that this FDP is mandatory for all COHORT E16 & E27 faculty members, irrespective of the courses they are currently handling. It is not restricted to faculty teaching SOA Programming & Microservices.

Instructions

- All faculty members must report to Rose Hall by 9:45 AM on all FDP days.
- The resource person will deliver the sessions online, and all participants are required to attend the sessions together from Rose Hall.

- Kindly bring your laptop along with earphones/headphones to actively participate in the hands-on sessions.
- Ensure that the required software is installed on your laptop and that it is fully charged before the session.
- Faculty members who are on approved leave or have scheduled classes during the FDP timings are requested to inform the organizers in advance with appropriate proof or supporting details.
- All remaining faculty members irrespective of any other work or responsibilities, must attend the FDP without exception.
- Attendance for all sessions is mandatory.

KL University FDP : SOA & Microservices

What is SOA?

Service-Oriented Architecture = designing software as a set of **independent services** that talk over a network through well-defined contracts.

- A service does one business capability (e.g. Payments, Employees)
- Other software calls it **without knowing how it works inside**
- Services are **reusable, loosely coupled, and independently evolvable**

The big idea: build systems from **business capabilities**, not from one giant codebase.

Day 1 : SOA Foundations & REST Microservices

Participants (32):

- Dr.K.V.D.Kiran
- Anju Aravind K
- Annamaraju Thanuja
- B Anusha
- Chandra Mohana Rai Potta...
- Dr Bharathi Paleti
- Dr KARYEMSETTY NAGARJ...

KL University FDP : SOA & Microservices

Style 1 - The Monolith

```

graph TD
    WebUI[Web UI] --> BusinessLogic[Business Logic]
    BusinessLogic --> DataAccess[Data Access]
    DataAccess --> SharedDatabase[(Shared Database)]
  
```

One deployable unit, one shared database.

- Simple to start, easy local dev, one deploy
- Tight coupling, scale-all-or-nothing, risky releases at size

Day 1 : SOA Foundations & REST Microservices

Participants (34):

- Dr.K.V.D.Kiran
- Ande Pavan Kumar
- Anju Aravind K
- Annamaraju Thanuja
- B Anusha
- Chandra Mohana Rai Potta...
- Dr KARYEMSETTY NAGARJ...

39:21

KL University FDP - SOA & Microservices

Style 2 — SOA (classic / enterprise)

```
graph LR; SC[Service Consumers] --> ESB[Enterprise Service Bus ESB]; ESB --> CS[Customer Service]; ESB --> BS[Billing Service]; ESB --> SS[Shipping Service]; CS --> SEDB[(Shared Enterprise DB)]; BS --> SEDB; SS --> SEDB
```

Coarse-grained services integrated through an **Enterprise Service Bus (ESB)**, often SOAP/XML.

- ✓ Reuse across the enterprise, formal contracts
- ✗ The ESB can become a heavy, central bottleneck

Day 1 - SOA Foundations & REST Microservices

Participants

- SR Siddharthan Rajesh...
- SJ Surya Kiran Jorhal...
- DC Dr. Srikanth Cher...
- DN Dr. KARIMSEETTY...
- D Dr. K.V.D. Kiran
- Dr. K.V.D. Kiran

33° Search

48:48

KL University FDP - SOA & Microservices

Style 3 — Microservices

```
graph TD; AG[API Gateway] --> ES[Employee Service]; AG --> DS[Department Service]; AG --> AS[Auth Service]; ES --> ED[(Employee DB)]; DS --> DD[(Department DB)]; AS --> AD[(Auth DB)]
```

Many **small** services, each owns its **own database**, lightweight **REST/messaging**, no central bus.

- ✓ Independent deploy & scale, team autonomy, fault isolation
- ✗ Distributed-system complexity (network, data consistency, ops)

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- BT Bandula Tayar
- CK chaitanya krishna

33° Search

14:02

spring initializr

Project: Spring Boot

Language: Java

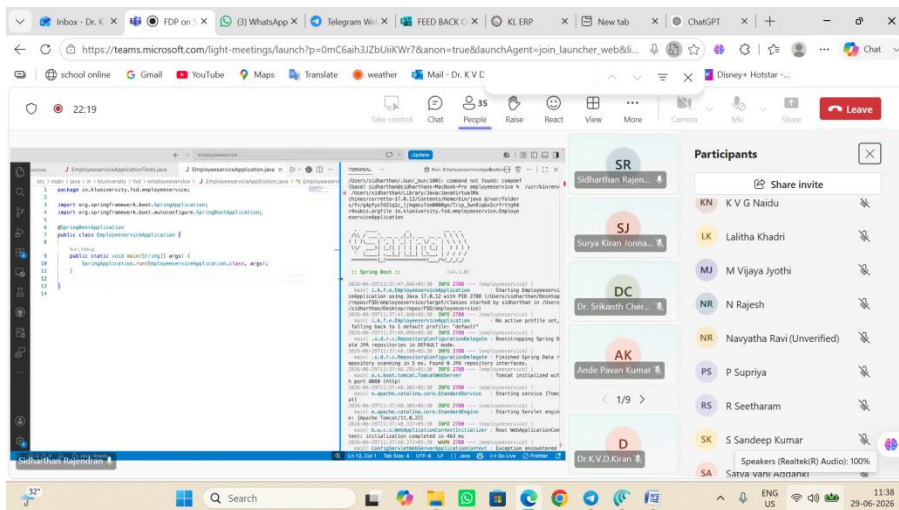
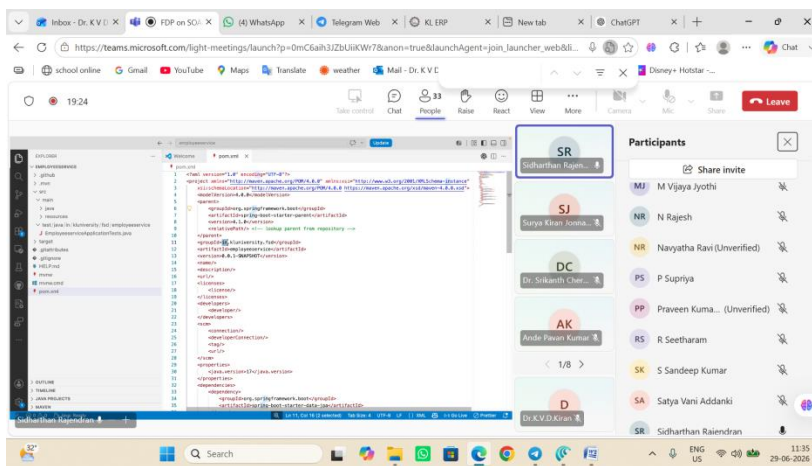
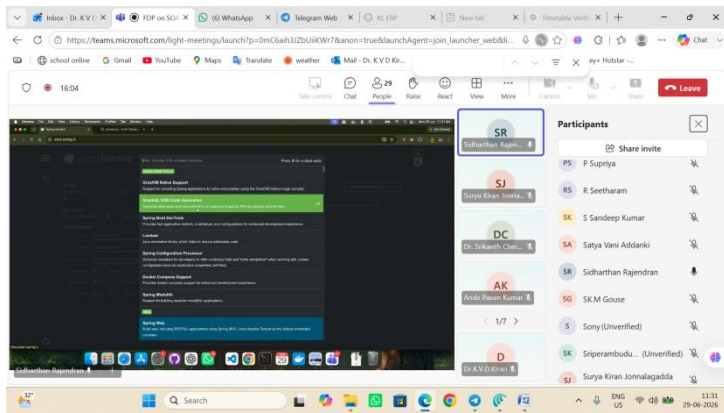
Dependencies: spring-boot-starter, spring-boot-starter-web

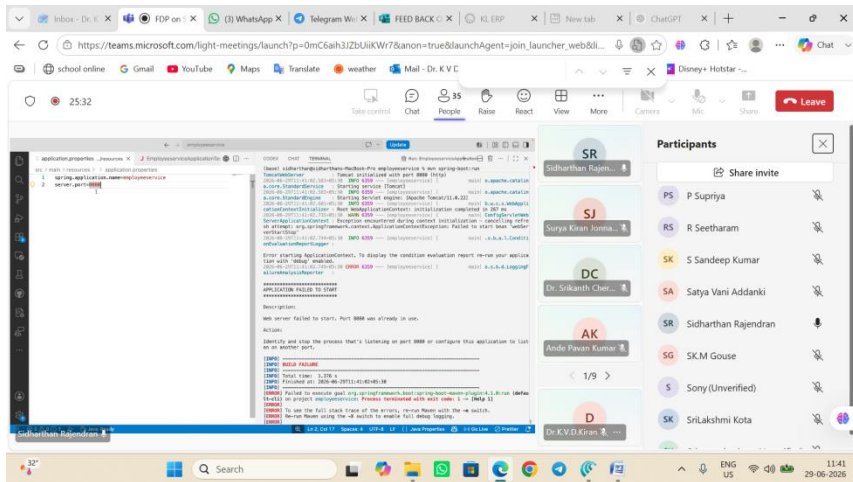
Version: 3.1.1

Participants

- SR Siddhartha...
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- DC Dr. Srikanth...
- AK Anude Pavan...
- SK Srikanth...
- DG Dr. Nand...
- D Dr. K.V.D. Kiran

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FEED BACK OF FACULTY DEVELOPMENT PROGRAMME

When you submit this form, it will not automatically collect your details like name and email address unless you provide it yourself.

* Required

1. Your Name *

Enter your answer

2. Your ID Number *

Enter your answer

Your response was submitted.

Important thing you can do next

[Save my response](#)

[Submit another response](#)



Report on Faculty Development Programme on 29-06-2026 to 1st July 2026

FDP Schedule Day2 (30-06-2026) for COHORT E16 & E27 faculty members

Spring Security in one picture

A chain of filters runs before your controller. We add one that reads the JWT and sets the user + role.

Day 2 - Security in Microservices

JWT — JSON Web Token

A signed, self-contained token: header.payload.signature

- Stateless — server stores nothing, the token carries the claims
- Signed — tampering breaks the signature
- Sent on every call: Authorization: Bearer <token>

Day 2 - Security in Microservices

Day 2 - Security in Microservices

Teams meeting interface showing a presentation slide titled "Spring Security Filter Chain". The slide content includes a flowchart for authentication:

```
graph TD
    A[Client request  
Authorization: Bearer JWT] --> B[Filter 1 - Authentication (who are you?)  
Spring Security  
Filter Chain]
    B --> C[JwtAuthenticationFilter  
(OncePerRequestFilter)]
    C --> D{Valid Bearer token?  
HS256 signature - not expired}
    D -- No / none --> E[SecurityContext stays empty  
(anonymous)]
    D -- Yes --> F[Authentication passed in  
SecurityContextHolder]
    F --> G[ApplicationDetailsService  
load user + role from DB]
```

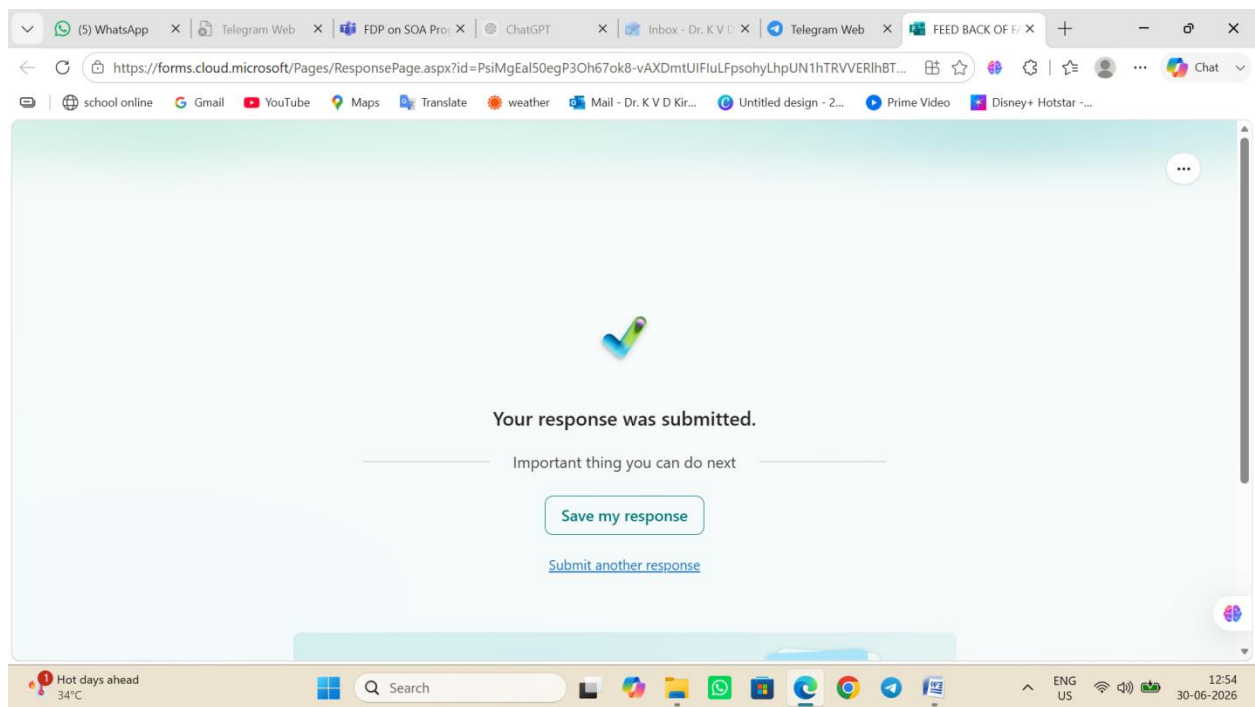
The right sidebar shows participants: SJ, SR, SG, AT, FS, DN, DG, NK, and DK. The bottom status bar shows 32°C Partly sunny, 01:04:04, and 30-06-2026.

Teams meeting interface showing a presentation slide titled "Demo contract". The slide content includes a table with endpoints, roles, and expected responses:

Endpoint	Role	Expect
POST /api/auth/login	public	200 + JWT
GET /api/employees	USER/ADMIN	200 (401 no token)
POST/PUT/PATCH/DELETE	ADMIN	201/200/204 (403 USER)

Accounts: `admin/admin123`, `user/user123`.

The right sidebar shows participants: SJ, SR, SG, AT, FS, DN, DG, NK, and DK. The bottom status bar shows 33°C Partly sunny, 01:07:48, and 30-06-2026.





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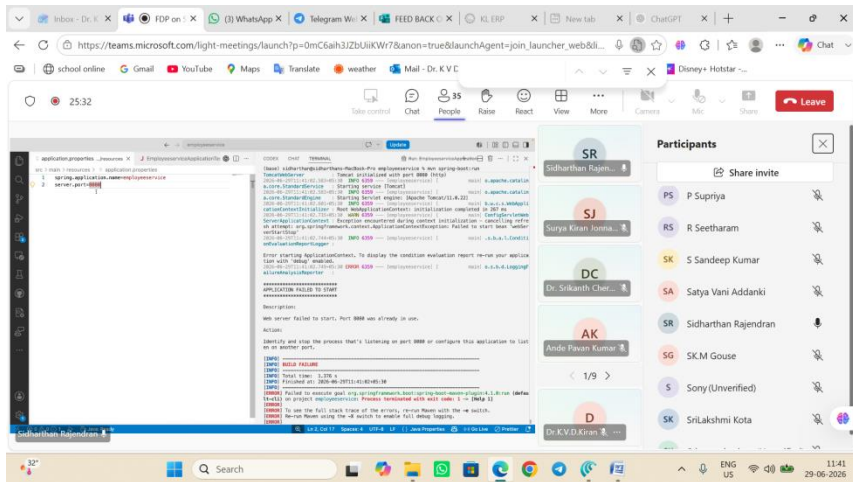
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The screenshot displays a Microsoft Teams meeting interface. At the top, the meeting title is "Inbox - Dr. K.V.D." and the status is "On F20:00". The top bar includes icons for various applications like WhatsApp, Telegram, and KLP. The main area is divided into two panes. The left pane shows a list of participants, with "Sriharshan Rajendran" highlighted. The right pane shows a list of participants, with "Sriharshan Rajendran" highlighted. The bottom bar shows the meeting controls, including a "Leave" button.



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* Required

1. Your Name *

Enter your answer

2. Your ID Number *

Enter your answer

Your response was submitted.

Important thing you can do next

[Save my response](#)

[Submit another response](#)