Web Service: Giving the service for web application when both application running using different technologies.

Spring boot

Amazon --🡪

Payment ---🡪 Paytm php

Gpay python

Phone pay node js

Net banking asp.net

Credit card / debit card

XML / JSON

eXtensible markup language

JavaScript Object Notation

Employee emp = new Employee(100,”Ravi”,23000);

Emp we can’t share to other technologies.

<Employee>

<Id>100</Id>

<Name>Ravi</Name>

<Salary>34000</Salary>

</Employee>

{“id”:100,”name”:”Ravi”,”salary”:24000} json format

Types of web service

SOAP web service : Simple Object Access Protocol. This web service base upon SOA (Service Oriented Architecture). In SOAP web service we need to consume and produce data only in xml format.

Rest full web service : in Rest full web service we can consume and produce data in any format base upon client requirement like html, xml, json, plan text and any media type etc. Rest full web service follow architecture style. Means expose our serverside resource like servlet, jsp or spring controller as rest api etc.

In MVC using JEE

View -🡪 html/jsp

Controller 🡪 Servlet

In Spring MVC with boot

View 🡪Thymeleaf

Controller 🡪Spring controller

@Controller replace by @RestController

@Conroller -🡪 then view must be java view ie JSP or thymeleaf etc

@Restcontroller 🡪Then view can be angular, react js, vue js , python, .net. php, etc.

Rest API or end point

According to Rest API we use http protocol method

Get get the resources Employee details, customer details, product details in json or xml format. Retrieve data from db.

Post : create the resource means store the data in database. (insert query)

Put

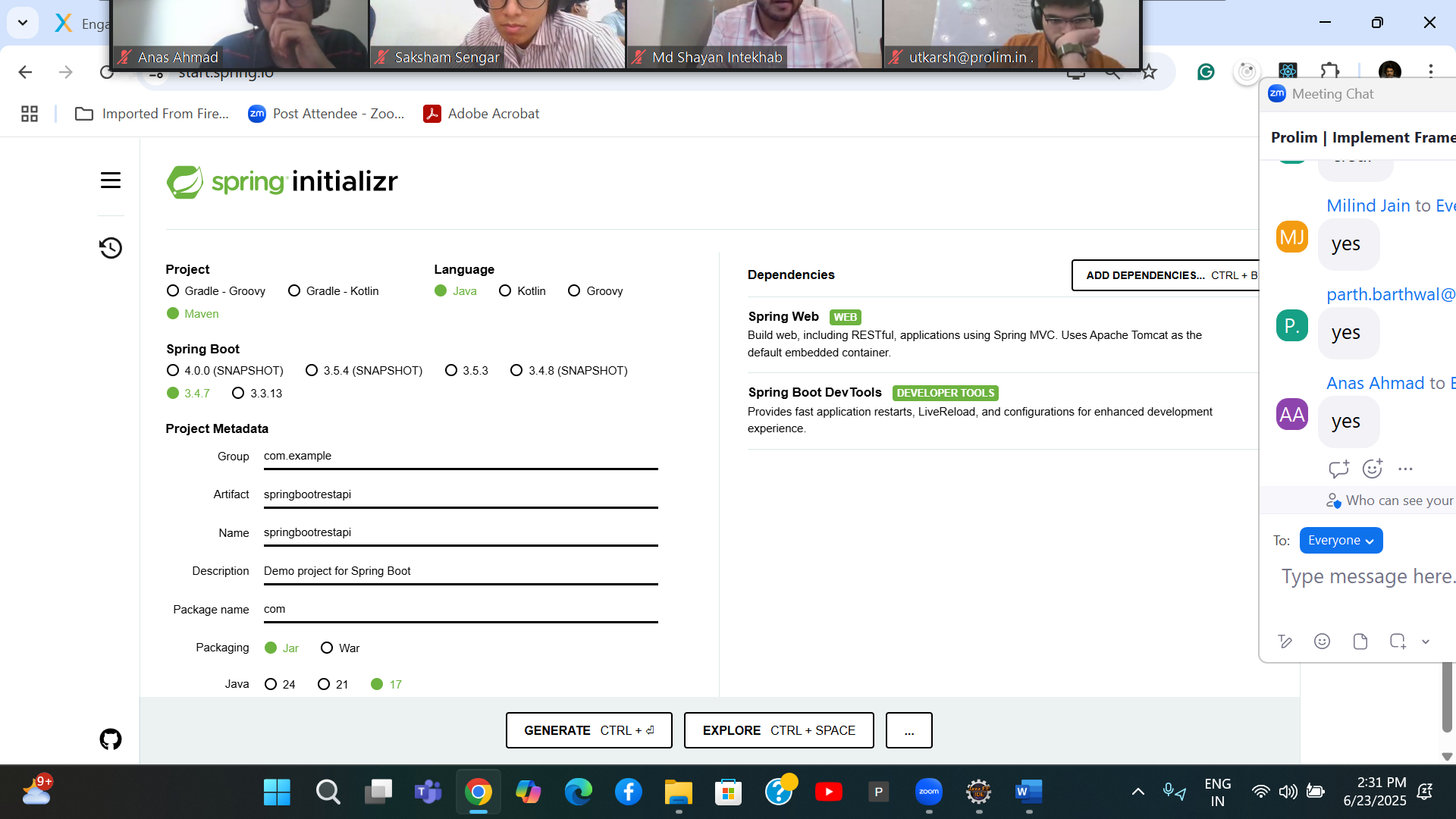
Patch : update the existing resource like update employee salary using id,

Delete : delete the resource using pk property.

Creating simple rest api

Starter -🡪 Web Starter

Starter 🡪Devtools starter



Get method

1. Get data in string format
   1. String format
   2. Html format
   3. Xml format
   4. Return object in json format
   5. Using get we can pass the value for rest api using two way
      1. Query param

URL?key=value single value

URL?key=value&key=value&key=value multiple value

By default form with get method internally us query param technique

* + 1. Path param

URL/value1 single value

URL/value1/value2/value3 multiple value

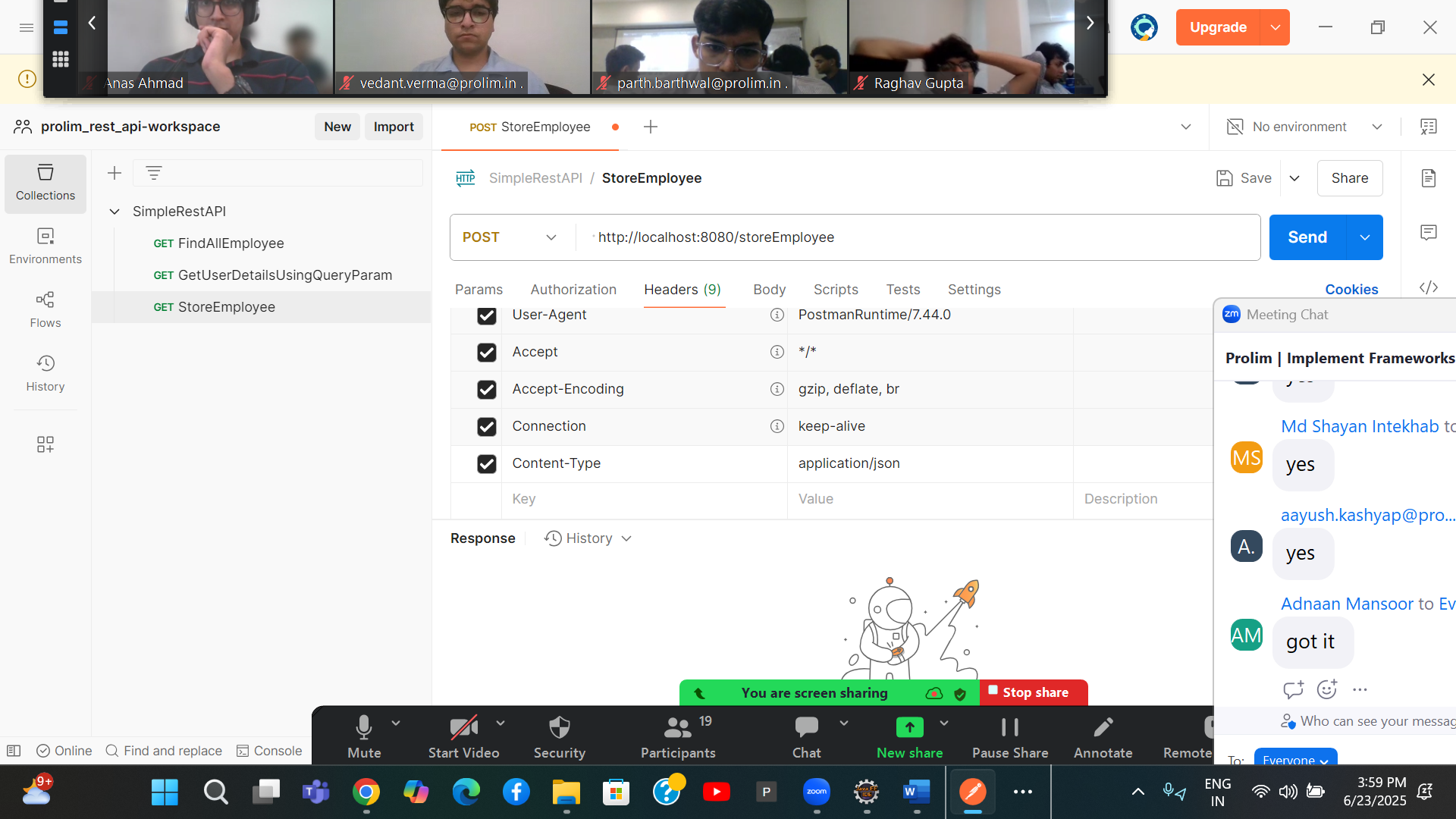
To test all rest api method we need to use plugin

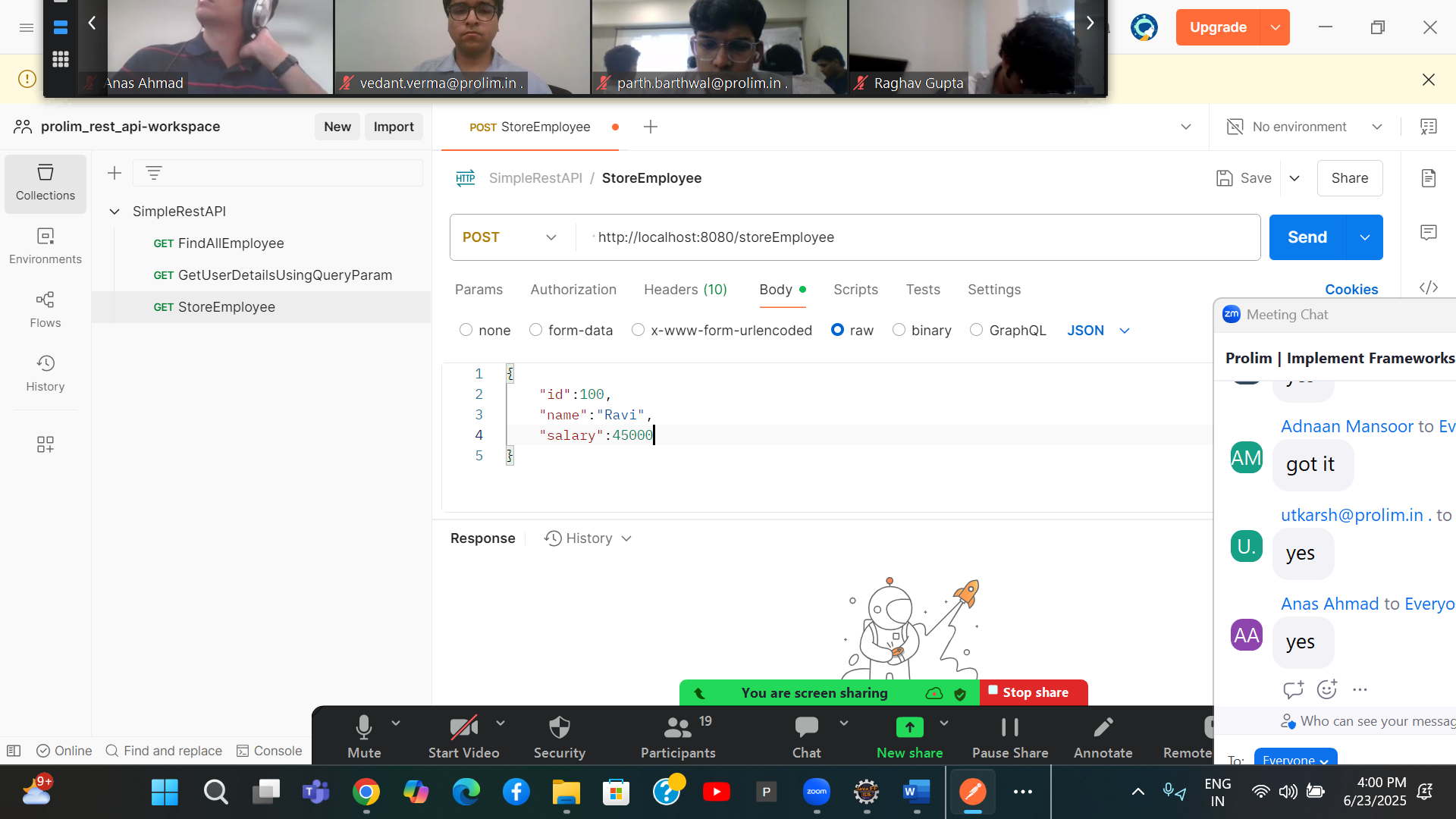
Post man client plugin

Or

Any other rest api plugin

Post method with post man client





**Employee Rest API end points**

Get al employee in json format Get method

Search particular employee using id with query param or path param Get method

Store employee details post method

Update employee salary patch/put method

Delete employee details get method

We need to create spring boot project with starter as

Web starter rest controller so no view starter

Jpa starter

Mysql connector

Dev tools

