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**College Name : SRM Madurai college for engineering and technology**

**Department: Information technology**

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**Roll No : 23IT40**

**Date : 15.9.25**

**Phase : Phase 2 Technology**

**Project Name : Interactive Form Validation**

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# INTRODUCTION

- The project Form is a structured data collection and management system.
- The purpose of Phase 2 is to design the solution architecture for the project.
- Key objectives:
  - Select the technology stack
  - Define UI structure and API schema
  - Plan data handling approach
  - Create diagrams for components and workflow

# TECH STACK SELECTION

## **1)Frontend:**

HTML, CSS, JavaScript (React)

## **2)Backend:**

Node.js with Express framework

## **3)Database:**

MongoDB or MySQL

## **4)Version Control:**

GitHub

## **5)Deployment Platform:**

IBM Cloud / Heroku

# UI STRUCTURE & API SCHEMA

## UI Structure:

- Simple form with input fields for data collection
- Client-side validation to ensure correct entries
- Submit button for sending data

## API Schema:

- POST /submit Form → Save form data
- GET /get Forms → Retrieve stored form data
- PUT /update Form/:id → Update existing form entry
- DELETE /delete Form/:id → Delete form entry

# DATA HANDLING APPROACH

## **Frontend:**

- State management using React Hooks / Context API

## **Backend:**

- REST API processes client requests and communicates with database

## **Database:**

- Stores submitted form entries in structured format

## **Validation:**

- Both client-side (in UI) and server-side (API level)

# COMPONENT / MODULE DIAGRAM

## **1) Frontend Module:**

Form UI, validation of inputs

## **2) API Module:**

Provides endpoints for CRUD operations

## **3) Database Module:**

Handles data storage and retrieval

# BASIC FLOW DIAGRAM

- User fills the form in UI
- Data is sent to the backend API
- API processes and stores data in the database
- Response is sent back to the user (success or error message)

The background is a light pink color. A darker pink rounded rectangle is centered on the page. In the top right corner, there are several concentric, curved lines in a medium pink shade. In the bottom left corner, there are several concentric, curved lines in a medium pink shade, along with a solid pink shape. The text "THANK YOU" is centered within the rounded rectangle.

THANK YOU