

## Project Design Phase-II Technology Stack (Architecture & Stack)

Date	30 June 2025
Team ID	LTVIP2025TMID29074
Project Name	Educational Organisation Using ServiceNow
Maximum Marks	4 Marks

### Technical Architecture:

#### User Interface:

- Web-based student and faculty portal using ServiceNow UI Builder
- Dashboards for department workload, SLA status, and request summaries
- Custom academic request forms (e.g., ID card, transcripts, hostel, exam)

#### Application Logic:

- **ServiceNow Flow Designer:** For automated academic request routing
- **Business Rules & Script Includes:** To configure institutional workflows
- **Decision Tables:** To guide routing based on department, urgency, and request type

#### Database & Storage:

- **CMDB / User Tables:** To maintain data of students, faculty, departments
- **Incident / Task Tables:** For storing academic and administrative requests

#### Machine Learning/AI (Optional Advanced Phase):

- **Predictive Intelligence (ServiceNow):** For automated classification and routing
- **Performance Analytics:** For monitoring SLA adherence and academic services performance

**Infrastructure:**

- Hosted on ServiceNow's cloud platform (multi-instance architecture)
- Scalable and secure with built-in compliance features

**External Interfaces:**

- Email integration for notification updates to students
- Optional **Virtual Agent** for student self-service via chatbot
- Slack/MS Teams integration (optional) for internal communication

**Table-1 : Components & Technologies:**

S.No	Component	Description	Technology
1	User Interface	Academic request forms and dashboards	ServiceNow Form Designer, UI Builder
2	Application Logic	Workflows for request handling	Flow Designer, Business Rules, Script Includes
3	Ticket Intelligence	Predictive routing (optional)	Predictive Intelligence (ServiceNow)
4	Database	Ticket and user record storage	CMDB, Incident Table, Student_Request Table
5	Notifications	SLA and status updates	Email, SMS, Virtual Agent
6	Infrastructure	Hosting and multi-campus scaling	ServiceNow Cloud Platform

**Table-2: Application Characteristics:**

S.No	Characteristics	Description	Technology
1	Platform-Based Design	Built using ServiceNow platform tools	ServiceNow
2	Security	Role-based access, HTTPS encryption, student/staff data protection	ACLs, Instance Security, HTTPS
3	Scalable Architecture	Suitable for multi-campus or multi-department use cases	Multi-instance ServiceNow architecture

4	Availability	24/7 access for students, faculty, admin	Hosted on ServiceNow Cloud
5	Performance	Track KPIs for academic service delivery and turnaround time	ServiceNow SLA Tracking, Performance Analytics