**Project Title: SmartNotice Agent – Intelligent University Communication Assistant**

**Objective**

To develop a smart autonomous agent that classifies, prioritises, and distributes university notifications to relevant student groups across multiple channels (email, web, WhatsApp), ensuring higher engagement and acknowledgement tracking.

**Problem Context**

In universities, important notices like schedule changes, scholarship deadlines, or administrative announcements are often lost in mass emails or buried in portals. There's no intelligent routing or targeting based on relevance.

**Agentic AI Scope**

• **Classification**: NLP-based classification of notices into categories (academic, financial, events, etc.)

• **Target Prediction**: Determines target audience using department, semester, role, etc.

• **Action Planning**: Decides optimal channels and timing for delivery

• **Autonomous Updates**: Posts to portal, Telegram/WhatsApp groups, notice boards

• **Follow-Up**: Tracks acknowledgements, sends reminders, and generates summaries

**Key Features**

• Notice parsing (via form or uploaded text/email)

• Smart audience prediction (e.g., “Only 2nd-year ECE students”)

• Delivery to multiple platforms (via APIs or bots)

• Read receipt tracking and non-responder alerts

• Dashboard for faculty/admins

• Analytics: Open rates, missed notices, most active users

**Tech Stack**

• **Backend**: Django + Celery for scheduling

• **Frontend**: React.js / Bootstrap

• **ML/DL Tools**:

o **NLP classification**: fine-tuned BERT or DistilBERT

o **Text similarity**: cosine similarity for clustering similar notices

o **Intent extraction**: spaCy or OpenAI API

• **Channels**: WhatsApp Business API, Telegram Bot, Email, Web Portal

• **Database**: PostgreSQL

• **Deployment**: Dockerized → Railway / EC2 / Google Cloud

**Deliverables**

• Full-stack web interface

• Autonomous notification agent

• Classification + routing system

• Acknowledgment dashboard and alerts

• API integration with communication platforms