📘 POLYRISE – FINAL PROJECT DOCUMENTATION (2025)

🔰 PROJECT OVERVIEW

Project Title: PolyRise – All-in-One Academic Platform for Diploma Students (MSBTE Focused)

Type: Real-world Web Application (Academic Productivity + LMS + Career + Admin Dashboard)

Technology Stack:

Backend: Django 4.x (Python)

Frontend: HTML, CSS, JS (Django Templates)

Database: SQLite (can be upgraded to PostgreSQL)

Hosting (optional): Render, PythonAnywhere, etc.

Target Users:

🎓 Students (MSBTE-focused, but scalable)

👨‍🏫 Faculty (Uploaders, Trackers)

🛡️ Admin (Superuser with full control)

🧩 KEY SYSTEM MODULES

Role-Based Access System

Common login page for all

Backend checks:

If user.is\_superuser or role is admin → redirect to /admin-dashboard/

If role is faculty → redirect to /faculty-dashboard/

If role is student → redirect to /student-dashboard/

Each user has access only to their relevant dashboard and tools.

1.Role-Based Registration Logic

Students: Free signup

Faculty: Must enter valid Faculty Access Code (e.g., PR-TEACH-2025) — verified in backend

Admins: Created manually via Django admin panel only (by you)

2.Superuser/Admin Behavior

You (as superuser) can use both:

Django Admin Panel (for backend CRUD, data export, users, logs)

Admin Dashboard (custom /admin-dashboard/ to monitor usage, push alerts, download data)

Superuser login works with same credentials on both panels

3.Dashboard Customization by Role

Students see study progress, streaks, quizzes

Faculty see uploaders, student tracking, analytics

Admin sees system analytics, export tools, user management

🗃️ FINAL POLYRISE FEATURE TABLE (2025 ✅)

Below is a section-wise listing of all confirmed and upgraded features:

🏠 Home / Discover

No. Feature Description

1 App Branding & Tagline Logo + tagline “Rise Beyond Limits”

2 Daily Motivation Auto-refreshing motivational quote

3 Daily Tech & Study News Rotating news cards: academic + tech

4 Today’s Highlight Random tool highlight (MCQ, resume, etc.)

👤 My Dashboard (Changes by Role)

No. Feature Description

5 Theme & Avatar Selector Light/dark mode + fun avatars

6 My Study Stats MCQs attempted, notes read, streak

7 Career Roadmap Graphical map of career paths

8 My Goals & Milestones Set goals, unlock badges

* ✅ Faculty Dashboard: Shows upload stats, student access logs, upload tools

✅ Admin Dashboard: Shows full system stats, user logs, export tools

📚 Academics & Resources

No. Feature Description

9 Syllabus Explorer MSBTE latest K Scheme viewer

10 Previous Year Papers Download 5–10 year exam papers

11 Notes & PDFs Faculty-uploaded notes, filtered by subject

12 Personal Notes Organizer Save/tag/edit student’s own notes

🧠 Smart Learning Tools (Merged with Engineering Tools)

No. Feature Description

13 Rapid 5 Quiz Random 5 MCQs per subject

14 Weak Area Report Shows low-performing quiz topics

15 Note Completion Tracker Shows how much student read notes

16 Today I Learned (TIL) Board Daily learning log

17 Multi Calculator Ohm’s law, binary, voltage, etc.

18 Unit Converter SI, Temp, Distance, Data converter

🎓 Career Launchpad

No. Feature Description

19 Smart Resume Builder Auto-filled templates + downloadable PDF

20 Final Year Project Ideas Idea bank with stack + sample links

21 Aptitude MCQ Practice Logical, verbal, quantitative questions

22 HR Interview Practice Common Q&As with answers

23 Interview Tips Library Embedded YouTube mock interview videos

24 Skill Checklist Track tech skills (Python, HTML)

25 My Career Plan Visual roadmap with goals

26 Career Interest Quiz Suggest careers based on interest type

📅 Planner & Productivity

No. Feature Description

27 Subject Completion Tracker Based on notes read, quizzes done

28 Weekly Timetable Generator Choose slots → generate PDF

29 Study Streak Tracker Days studied continuously

30 Notes To-Do List Tasks related to study, checklist

31 Event Calendar View upcoming college/exam events

📢 Notifications & Alerts (✅ New Section)

No. Feature Description

32 Exam & Notification Alerts Admin uploads MSBTE news: Results, Hall Ticket, Time Table

33 General Announcements Info like platform changes or updates

✅ Admin can:

Upload news with title, message, optional PDF/link

Set expiry date

Only admins can upload MSBTE-level alerts

❌ Faculty cannot upload in this section now (optional feature for future)

🧑‍🏫 Faculty Zone

No. Feature Description

34 Upload Section Upload notes, MCQs, papers (with filters)

35 Track Student Activity See access logs: who downloaded what

36 Analytics Reports View most active students, top sections used

**💬 Support & Connect**

| **No.** | **Feature** | **Description** |
| --- | --- | --- |
| 1 | **Anonymous Doubt Box** | Students can ask subject-related questions anonymously; visible only to faculty in their dashboard for review. |
| 2 | **Weekly Challenge Zone** | A fun weekly quiz or riddle to boost regular engagement, critical thinking, and student participation. |
| 3 | **Help Center / FAQs** | A static help page providing login support, usage guides, upload instructions, and answers to common questions. |
| 4 | **About PolyRise** | A dedicated page sharing the mission, goals, team credits, and purpose behind the PolyRise academic platform. |

🛠️ System & Admin

No. Feature Description

39 Login System Role-based form, redirects, faculty key check

40 Admin Panel (Django) Backend CRUD: users, content, system logs

41 Backup & Export Download Excel/CSV of data, users, logs

🔒 Backend Control Summary

Role Can Access Notes

Superuser (You) Admin panel + all dashboards Full control

Admin (role) Admin dashboard (no backend) See stats, push alerts

Faculty Upload tools, student tracking Needs access key

Student Resources, quizzes, dashboards Free signup

✅ FINAL NOTES

The platform is fully responsive (can be made mobile-friendly via Bootstrap or Tailwind).

Designed for offline demonstration (no paid APIs).

Prioritizes realistic student needs, faculty workflows, and admin control.

Each section is modular, can be expanded or hidden if needed.

🔔 Notifications & Alerts – Finalized Plan

✅ Purpose

This section will serve as the official noticeboard for important academic updates, mainly related to MSBTE-level exams and circulars. It ensures students stay informed about key announcements directly on the PolyRise platform.

🧑‍💼 Who Can Upload Alerts?

Only Admin/Superuser (you as the project developer).

Admin will upload alerts via the Django Admin Panel (no separate upload form required).

Faculty will not upload alerts in this phase (this can be added later optionally).

📤 How to Upload

Use Django Admin Panel > Notifications model (custom model you’ll create).

Fill fields like:

Title (e.g., “Summer 2025 Exam Timetable Released”)

Message/Description (short info about the alert)

Category/Type (Exam, Result, Hall Ticket, Notice)

Link (optional – MSBTE website, PDF, Google Drive)

Expiry Date (auto-hides alert after expiry)

👀 How Students Will See Alerts

A clean frontend “Notifications & Alerts” section will list all active alerts.

Each alert will display:

📌 Title

📝 Short Message

🔗 Optional Link Button (View/Download)

🏷️ Tag/Category

📅 Date Posted / Expiry Info

🔄 System Behavior

Alerts expire automatically (based on expiry date).

Most recent alerts appear on top.

Section can be displayed as:

Card layout

Filtered by category (optional)

🚫 What It Is NOT

Not for general college notices, viva updates, or casual uploads by teachers.

Not a discussion forum.

Not editable by faculty or students.

🔔 Types of MSBTE News You Can Upload:

📢 Alert Type 📝 Example

✅ Results “MSBTE Summer 2025 Result Declared” with result portal link

📅 Timetable “MSBTE Winter 2025 Exam Timetable Released” with PDF link

🎫 Hall Tickets “Download MSBTE Hall Ticket for Summer 2025”

📄 Form Deadlines “Last Date to Fill Exam Form: Aug 5, 2025”

📚 Syllabus Updates “New Syllabus Released for 3rd Sem CSE”

📑 Rechecking/Revaluation “Rechecking Forms Open for Summer 2025”

🛑 Holiday Notices “MSBTE Declares Holiday on 15 Aug 2025”

🛠 How It Will Work:

You’ll create a new alert from your Django admin panel, entering:

Title (e.g., “MSBTE Result Out”)

Short message (e.g., “Click to check result on official site.”)

Optional external link or PDF URL

Optional type/category (e.g., result, timetable, notice)

Optional expiry date (so it hides after some time)

🧑‍💻 Backend (Admin Only):

Handled by superuser/admin. You can decide to:

Add manual alerts anytime

Control which ones are live

Even link to uploaded PDFs hosted in /media/ if needed

🖥 Where Will Students See This?

In “Notifications & Alerts” section of their dashboard

Sorted by newest first

Clear format with icons, title, date, and clickable links

✅ User Role-Based Section Access

Section Name Student 👨‍🎓 Faculty 👩‍🏫 Admin/Superuser 🛠️

🏠 Home / Discover ✅ Yes ✅ Yes ✅ Yes

👤 My Dashboard ✅ Yes (Student Dashboard) ✅ Yes (Faculty Dashboard) ✅ Yes (Admin Panel Dashboard)

📚 Academics & Resources ✅ Yes ✅ Yes (for uploading/editing content) ✅ Yes (for managing all content)

🧠 Smart Learning Tools (merged with Engineering Tools) ✅ Yes ❌ No (unless optional test use) ✅ Yes (testing purpose only)

🎓 Career Launchpad ✅ Yes ❌ No ✅ Yes (for visibility/testing)

📅 Planner & Productivity ✅ Yes ❌ No ✅ Yes (testing/monitoring only)

📢 Notifications & Alerts ✅ Yes (Can view only) ✅ Yes (Can view only) ✅ Yes (Can upload via admin panel)

🧑‍🏫 Faculty Zone ❌ No ✅ Yes ✅ Yes (full access to logs/reports)

💬 Support & Connect ✅ Yes (can post doubt, join challenges) ✅ Yes (see & respond to doubts) ✅ Yes (monitor all)

🛠️ System & Admin ❌ No ❌ No ✅ Yes (Only admin/superuser)

🔍 Summary by Role

👨‍🎓 Student

Has access to:

Home, My Dashboard (student view), Academics, Smart Tools, Career Launchpad, Planner, Notifications, Support & Connect.

Cannot access: Faculty Zone, Admin Panel.

👩‍🏫 Faculty

Has access to:

Home, My Dashboard (faculty tools), Academics (upload tools), Faculty Zone, Notifications (view only), Support & Connect (respond to doubts).

Cannot access: Career Launchpad, Smart Tools, Admin Panel.

🛠️ Admin / Superuser

Has access to all sections.

Special permissions:

Can upload MSBTE-level alerts.

Can export data.

Can manage users and roles.

Can access all dashboards and logs.