**✅ Essential Features**

**🔐 1. Role-Based Login System**

**Users:**

* Admin (creates users, departments, courses)
* Lecturer (uploads results, views feedback)
* Student (views results, submits feedback)

**📥 2. Student Result Management**

* Admin/Lecturer can upload results (manual form or CSV import)
* GPA/CGPA calculated per semester
* Students can view their results dashboard

**🗳️ 3. Student Feedback Submission**

* Students give anonymous course/instructor feedback (ratings + comments)
* Feedback linked to course + lecturer
* Simple interface: star rating + comment

**📊 4. Lecturer Feedback Dashboard**

* View average rating per course
* View number of positive/neutral/negative feedback (basic sentiment)

**📁 5. Report/Transcript View for Student**

* Show all past results semester-by-semester
* Downloadable PDF report (optional)

6. **🧠 Optional Add-On for Intelligence (Lightweight)**

**✨ Simple Feedback Sentiment Counter**

* Use a list of positive/negative words
* Count sentiment score based on comment
* Classify each feedback as Positive / Neutral / Negative

**🗂️ Database Tables (Simplified Structure)**

| **Table Name** | **Key Columns** |
| --- | --- |
| users | id, name, email, password, role (admin, student, lecturer) |
| departments | id, name |
| courses | id, title, code, unit, department\_id |
| results | id, student\_id, course\_id, score, session, semester |
| feedbacks | id, student\_id, course\_id, lecturer\_id, rating, comment |
| lecturer\_courses | lecturer\_id, course\_id (many-to-many pivot) |