

## Workflow with Roadmap Example (Generalized)

### 1. Student Goal Identification

- If student **knows the goal** (e.g., SDE, Doctor, Civil Services) → directly generate roadmap.
  - If student **doesn't know** → system suggests potential careers via assessments (interests, strengths, personality).
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### 2. Primary Roadmap Generation

- Break the path into **milestones**:
  1. **Exams/Entry Requirement** → entrance exams, scholarships, alternative entry modes.
  2. **Education Phase (Years/Stages)** → what to learn each year/semester.
  3. **Skill Development** → technical + soft skills, projects, certifications.
  4. **Industry Preparation** → internships, hackathons, placements, research work.

Each milestone comes with:

- ✓ **Priority Levels** (must-do, optional, backup).
  - ✓ **Resources** (online courses, books, mentors, communities).
  - ✓ **Evaluation Criteria** (what success looks like at that stage).
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### 3. Adaptive Backup Paths

- If **Goal A fails or changes** → system suggests **Goal B or C** (similar/adjacent fields).
- Example (for SDE):
  - No B.Tech → B.Sc. CS or Diploma + Bootcamps.
  - Lose interest → QA Engineer, Product Management, UI/UX, Data Analyst.
  - Still unsure → General career clusters (IT, Business, Research).

### 4. Dynamic Feedback Loop

- Student provides feedback → “I don't like coding” or “Math is tough.”
  - System **recalculates roadmap** → suggests a better match (e.g., Software Testing instead of Competitive Programming).
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### 5. Roadmap Output (Student View)

A clear **timeline-style career plan**:

**Example: Goal → SDE**

- **Step 1 (Exams):** JEE (P1), CUET (P2), State exams (P3).
  - **Step 2 (College Year 1):** Learn Python + C++ + Basic DSA.
  - **Step 3 (College Year 2):** DBMS + OOP + Mini projects.
  - **Step 4 (College Year 3):** Web Dev + Hackathons + Internships.
  - **Step 5 (College Year 4):** Competitive Programming + System Design + Placement Prep.
  - **Backup:**
    - No B.Tech → B.Sc. + Bootcamps.
    - Lose interest → QA, UI/UX, Data Analyst.
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◆ **Final Flow in One Line**

**Student Goal (or Assessment) → Generate Milestone Roadmap → Provide Resources + Backups → Feedback → Adaptive Updates.**