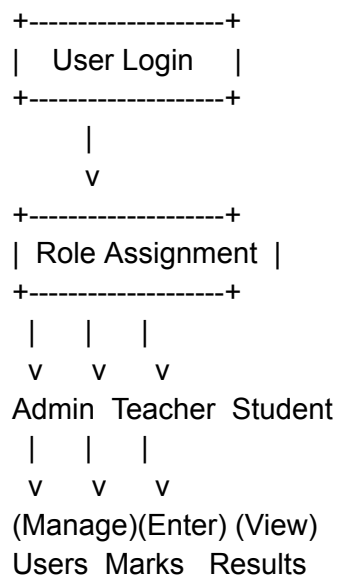


1. High-Level System Architecture

This system consists of:

- **User Authentication Module** (Login, Role Assignment)
- **Admin Panel** (User & Result Management)
- **Teacher Panel** (Marks Entry & Update)
- **Student Panel** (Result Viewing)
- **File Handling Module** (`users.txt` & `students.txt`)

System Architecture Diagram

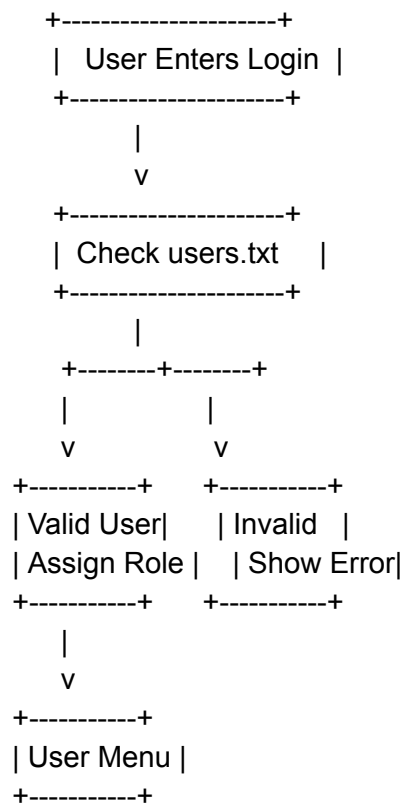


2. Flowchart for User Login

Purpose: Ensure users log in and access features based on roles.

- 1 User enters **username & password**
- 2 System **checks credentials in `users.txt`**
- 3 If **valid**, assign role (Admin, Teacher, Student)
- 4 If **invalid**, show error and retry

Flowchart

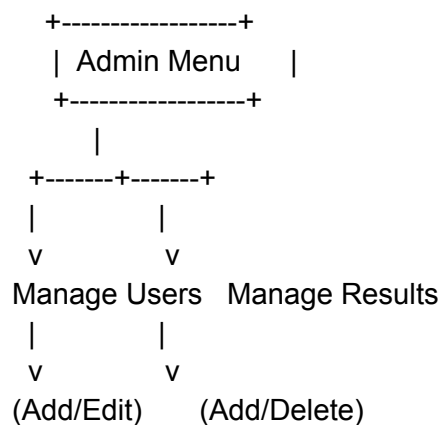


3. Flowchart for Admin Functions

Admin Can:

- ✓ Add/Delete Users
- ✓ Add/Delete Student Records
- ✓ View All Student Results

Flowchart

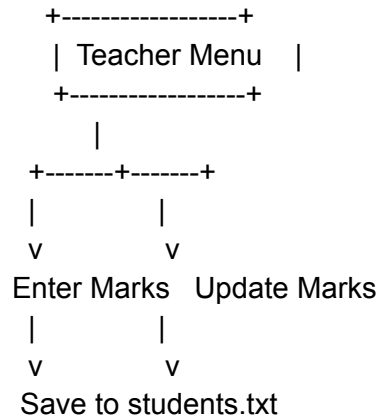


4. Flowchart for Teacher Functions

Teacher Can:

- ✓ Enter Marks
- ✓ Update Marks
- ✓ Generate Reports

Flowchart

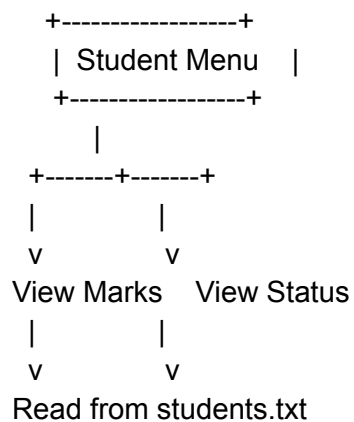


5. Flowchart for Student Functions

Student Can:

- ✓ View Results
- ✓ View Total & Percentage

Flowchart



6. File Handling Structure

We will store **student data** and **user credentials** in text files (`.txt`).

Example: `users.txt`

```
admin,admin123,admin  
teacher1,teachpass,teacher  
student1,studpass,student
```

Example: `students.txt`

```
101,John Doe,2023,Class 10,Math:80,Science:90,English:85  
102,Jane Smith,2023,Class 10,Math:75,Science:95,English:88
```
