

# Assignment -3

## Question 1: Identify and Fix Errors in JSON

Errors in the provided JSON:

1. Missing comma after "id": 102
2. Missing comma between courses: ["CS101" "CS102", "STAT101"]
3. Boolean values must be lowercase: "True" → "true"
4. Undefined values not allowed in JSON: "advisor": undefined → should be null or a string
5. String not properly closed in "notes"
6. Missing comma between objects in students array
7. ID 103 should be a number, not a string
8. Extra trailing comma after last element in "special\_programs"
9. Missing comma between "last\_updated" and "total\_students"

### Corrected JSON:

```
{
  "students": [
    {
      "id": 101,
      "name": "Sarah Johnson",
      "courses": ["CS101", "MATH200", "ENG150"],
      "gpa": 3.85,
      "active": true,
      "graduation_date": null
    },
    {
      "id": 102,
      "name": "Alex Chen",
      "courses": ["CS101", "CS102", "STAT101"],
      "gpa": 3.92,
      "active": true,
      "advisor": null,
      "notes": "Excellent student with strong analytical skills"
    },
    {
      "id": 103,
      "name": "Maria Rodriguez",
      "courses": [],
      "gpa": 3.67,
      "active": false,
      "special_programs": ["honors", "research"]
    }
  ],
  "last_updated": "2024-09-15T10:30:00Z",
  "total_students": 3
}
```

## Question 2: TOML Configuration Analysis

- a. There are 2 feature flags: "new\_ui" and "analytics". Currently, only "new\_ui" is active.
- b. When the log file reaches 100MB, it will rotate since rotate = true.
- c. To make the server accessible only from localhost, change host = "127.0.0.1".
- d. Cached items will remain valid for 3600 seconds (1 hour).
- e. [feature\_flags] defines a single table, while [[feature\_flags]] defines an array of tables. This allows multiple feature flags to be listed under the same key.