📌 Practice Problems

[1] **Create a JSON object for a Student with fields: name, age, and subjects (array).**

[2] **Convert a Java object (Car) into JSON format.**

[3] **Read a JSON file and extract only specific fields (e.g., name, email).**

[4] **Merge two JSON objects into one.**

[5] **Validate JSON structure using Jackson.**

[6] **Convert a list of Java objects into a JSON array.**

[7] **Parse JSON and filter only those records where age > 25.**

Hands-on Practice Problems

[1] **Read a JSON file and print all keys and values.**

[2] **Convert a list of Java objects into a JSON array.**

[3] **Filter JSON data: Print only users older than 25 years.**

[4] **Validate an email field using JSON Schema.**

[5] **Merge two JSON files into a single JSON object.**

[6] **Convert JSON to XML format.**

[7] **Convert CSV data into JSON.**

[8] **Generate a JSON report from database records.**

Problem Statement: IPL and Censor Analyzer

Objective:

Develop a **Java application** that reads IPL match data from **JSON and CSV files**, processes the data based on defined **censorship rules**, and writes the sanitized data back to new files.

📌 Requirements

1️⃣ Input Data Formats

The application should support:

- **JSON Input:** IPL match data in JSON format.
- **CSV Input:** IPL match data in CSV format.

2️⃣ Censorship Rules

The program should apply the following censorship:

- **Mask Team Names:** Replace part of the team name with `"***"`.

  Example: `"Mumbai Indians"` → `"Mumbai ***"`
- **Redact Player of the Match:** Replace player names with `"REDACTED"`.

3️⃣ Output Data Formats

- Generate **censored JSON and CSV files** after processing.

📝 Sample IPL Data

JSON Input (Before Censorship)

```json
[
  {
    "match_id": 101,

    "team1": "Mumbai Indians",

    "team2": "Chennai Super Kings",

    "score": {

      "Mumbai Indians": 178,

      "Chennai Super Kings": 182

    },

    "winner": "Chennai Super Kings",

    "player_of_match": "MS Dhoni"

  },

  {

    "match_id": 102,

    "team1": "Royal Challengers Bangalore",
```

```
    "team2": "Delhi Capitals",

    "score": {

      "Royal Challengers Bangalore": 200,

      "Delhi Capitals": 190

    },

    "winner": "Royal Challengers Bangalore",

    "player_of_match": "Virat Kohli"

  }

]
```

CSV Input (Before Censorship)

```
match_id,team1,team2,score_team1,score_team2,winner,player_of_match

101,Mumbai Indians,Chennai Super Kings,178,182,Chennai Super Kings,MS
Dhoni

102,Royal Challengers Bangalore,Delhi Capitals,200,190,Royal
Challengers Bangalore,Virat Kohli
```