

```

package api;

import com.google.gson.Gson;
import com.google.gson.reflect.TypeToken;
import model.Course;

import java.io.FileReader;
import java.io.Reader;
import java.util.ArrayList;
import java.util.List;

public class CourseDatabase {
    private static List<Course> courses = new
    ArrayList<>();

    // Load JSON file (call this at the start of your
    program)
    public static void load(String filename) {
        try (Reader reader = new FileReader(filename)) {
            Gson gson = new Gson();
            courses = gson.fromJson(reader, new
            TypeToken<List<Course>>() {}.getType());

            // Initialize code field for all courses
            for (Course c : courses) {
                c.initCode();
            }

            System.out.println("Courses loaded: " +
            courses.size());
        } catch (Exception e) {
            e.printStackTrace();
        }
    }

    // Get course by combined code, e.g., "CS115"
    public static Course getCourse(String code) {
        for (Course c : courses) {
            if (c.getCode() != null &&
            c.getCode().equalsIgnoreCase(code)) {
                return c;
            }
        }
    }
}

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    }  
    }  
    return null;  
}
```

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    // Optional: get all courses  
    public static List<Course> getAllCourses() {  
        return courses;  
    }  
}
```