

Lab 10

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Model Class: Main class to call the API and convert JSON to Java objects

```
public class User {  
    private int id;  
    private String name;  
    private String email;  
  
    // Add getters and setters  
}
```

Main class to call the API and convert JSON to Java objects:

```
import com.google.gson.Gson;  
import spark.Request;  
import spark.Response;  
  
import static spark.Spark.*;
```

```

public class Main {

    public static void main(String[] args) {

        port(4567); // Set the port for your API

        // Define a route that returns user information as JSON
        get("/user/:id", (req, res) -> {

            int userId = Integer.parseInt(req.params("id"));

            User user = getUserById(userId);

            if (user != null) {

                res.type("application/json");

                return new Gson().toJson(user);

            } else {

                res.status(404);

                return "User not found";

            }

        });

        // Simulate calling the API
        simulateAPICall();

    }

    // Mock data source - replace this with your actual data source
    private static User getUserById(int id) {

        if (id == 1) {

            return new User(1, "John Doe", "john@example.com");

        }

    }

}

```

```

    } else if (id == 2) {
        return new User(2, "Jane Smith", "jane@example.com");
    }
    return null;
}

// Simulate calling the API and converting JSON to Java objects
private static void simulateAPICall() {
    String apiUrl = "http://localhost:4567/user/1"; // Replace with your API URL

    try {
        String jsonResponse = new Gson().toJson(new User(1, "John Doe",
"john@example.com"));
        User user = new Gson().fromJson(jsonResponse, User.class);

        System.out.println("User ID: " + user.getId());
        System.out.println("User Name: " + user.getName());
        System.out.println("User Email: " + user.getEmail());
    } catch (Exception e) {
        e.printStackTrace();
    }
}
}

```