

## Architecture and API Design

### Let's GO!

#### 1. Architecture and API design

##### 1.1. Backend:

###### 1.1.1. Technology

REST API, JSON, SQLite

###### 1.1.2. Database schema

###### 1.1.3. Database to object mapper

###### 1.1.4. REST API

|                 | Method | URI        | JSON input<br>(simplified)               | JSON output<br>(simplified)                        | Authenticati<br>on required? | Authorizat<br>ion<br>required? |
|-----------------|--------|------------|--|--|------------------------------|--------------------------------|
| <b>Users</b>    |        |            |  |  |                              |                                |
|                 | POST   | /users     | {"name": "bertrand"}                     | {"name": "bertrand",<br>"location":<br>"/users/1"} | no                           | no                             |
|                 | GET    | /users/:id |  |  | yes                          | yes                            |
|                 | PUT    | /users/:id | {"name": "bertrand"}                     |  | yes                          | yes                            |
|                 | DELETE | /users/:id |  |  | yes                          | yes                            |
|                 |        |            |  |  |                              |                                |
| <b>Sessions</b> |        |            |  |  |                              |                                |
|                 |        |            |  |  |                              |                                |
|                 | POST   | /sessions  | {"name": "bertrand",<br>"pwd": "eiffel"} | {"key": "a1b23"}                                   | no                           | no                             |
|                 | DELETE | /sessions  |  |  | yes                          | yes                            |
|                 |        |            |  |  |                              |                                |

|                     |        |  |                               |  |     |     |
|---------------------|--------|--|-------------------------------|--|-----|-----|
| <b>Projects</b>     |        |  |                               |  |     |     |
|                     | GET    | /users/:id/projects                              |                               |  | yes | yes |
|                     | POST   | /users/:id/projects                              | {"name": "project1"}          | {"name": "project1",<br>"location":<br>"/users/1/projects/1"}                  | yes | no  |
|                     | GET    | /users/:id/projects/:id                          |                               |  | yes | yes |
|                     | PUT    | /users/:id/projects/:id                          | {"name": "project1"}          |  | yes | yes |
|                     | DELETE | /users/:id/projects/:id                          |                               |  | yes | yes |
|                     | PUT    | /users/:id/projects/:id/invite_devs              | {"devs": ["a@b.c,<br>d@e.f"]} |  | yes | yes |
|                     | PUT    | /users/:id/projects/:id/remove_devs              | {"devs": ["a@b.c,<br>d@e.f"]} |  | yes | yes |
|                     |        |  |                               |  |     |     |
| <b>Sprints</b>      |        |  |                               |  |     |     |
|                     | GET    | /users/:id/projects/:id/sprints                  |                               |  | yes | yes |
|                     | POST   | /users/:id/projects/:id/sprints                  | {"name": "sprint1"}           | {"name":<br>"requirement1",<br>"location":<br>"/users/1/projects/1/sprints/1"} | yes | yes |
|                     | GET    | /users/:id/projects/:id/sprints/:id              |                               |  | yes | yes |
|                     | PUT    | /users/:id/projects/:id/sprints/:id              | {"name": "sprint1"}           |  | yes | yes |
|                     | DELETE | /users/:id/projects/:id/sprints/:id              |                               |  | yes | yes |
|                     |        |  |                               |  |     |     |
| <b>Requirements</b> |        |  |                               |  |     |     |
|                     | GET    | /users/:id/projects/:id/sprints/:id/requirements |                               |  | yes | yes |

|              |        |  |                               |  |     |     |
|--------------|--------|--|-------------------------------|--|-----|-----|
|              | POST   | /users/:id/projects/:id/sprints/:id/requirements                           | {"name": "requirement1"}      | {"name": "requirement1",<br>"location": "/users/1/projects/1/sprints/1/requirements/1"}  | yes | yes |
|              | GET    | /users/:id/projects/:id/sprints/:id/requirements/:id                       |                               |  | yes | yes |
|              | PUT    | /users/:id/projects/:id/sprints/:id/requirements/:id                       | {"name": "requirement1"}      |  | yes | yes |
|              | DELETE | /users/:id/projects/:id/sprints/:id/requirements/:id                       |                               |  | yes | yes |
|              |        |  |                               |  |     |     |
| <b>Tasks</b> |        |  |                               |  |     |     |
|              | GET    | /users/:id/projects/:id/sprints/:id/requirements/:id/tasks                 |                               |  | yes | yes |
|              | POST   | /users/:id/projects/:id/sprints/:id/requirements/:id/tasks                 | {"name": "task1"}             | {"name": "task1",<br>"location": "/users/1/projects/1/sprints/1/requirements/1/tasks/1"} | yes | yes |
|              | GET    | /users/:id/projects/:id/sprints/:id/requirements/:id/tasks/:id             |                               |  | yes | yes |
|              | PUT    | /users/:id/projects/:id/sprints/:id/requirements/:id/tasks/:id             | {"name": "task1"}             |  | yes | yes |
|              | DELETE | /users/:id/projects/:id/sprints/:id/requirements/:id/tasks/:id             |                               |  | yes | yes |
|              | PUT    | /users/:id/projects/:id/sprints/:id/requirements/:id/tasks/:id/assign_devs | {"devs": ["a@b.c,<br>d@e.f"]} |  | yes | yes |

|  |     |  |                            |  |     |     |
|--|-----|--|----------------------------|--|-----|-----|
|  | PUT | /users/:id/projects/:id/sprints/:id/requirements/:id/tasks/:id/unassign_devs | {"devs": ["a@b.c, d@e.f"]} |  | yes | yes |
|--|-----|--|----------------------------|--|-----|-----|

## 1.2. Frontend

### 1.2.1. Technology

AngularJS, Bootstrap

### 1.2.2. Frontend routing [ Controllers]

- session/ [ LoginCtrl, LoginFacebookCtrl, LoginGoogleCtrl, ForgotPasswordCtrl ]
- dashboard/ [DashboardCtrlView]
- projects/ [CreateProjectCtrl, EditProjectCtrl, ListProjectCtrlView, DeleteProjectCtrl, ShareProjectCtrl ]
- projects/+projectid+/spring [ CreateSprintCtrl, EditSprintCtrl, ListSpringCtrlView, DeleteSprintCtrlView]
- projects/+projectid+/backlog [BacklogCtrlView]
- projects/+projectid+/taskboard [CreateTaskboardCtrl, ]
- projects/+projectid+/task [CreateTaskCtrl, EditTaskCtrl, ListTaskCtrlView, DeleteTaskCtrl]
- projects/+projectid+/userstories [UserCtrlView]

### 1.2.3. Page mockups

Zip file and <http://labs.jorgeisaac.com/lets-go-frontend/ui>

