

# Prospector - Testing Documentation

- **Project Title:** Prospector
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- **Supervisor:** Dr Stephen Blott
- **Date Completed:** 2024-04-21

## Backend Tests


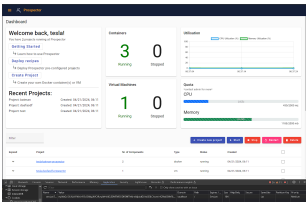
For testing the backend, we wrote a set of integration/unit tests that test each of the endpoints and controllers functionalities through the use of valid mocks and assertions. We use Golang’s inbuilt testing module to do this. For the Controller, we were able to mock the nomad client by returning specific data based on the URL passed to the function.

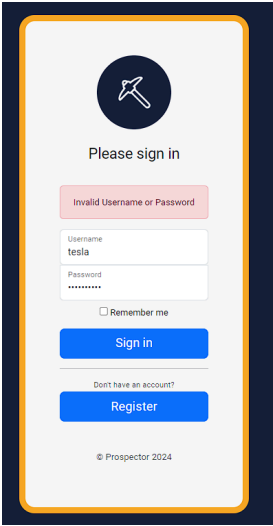
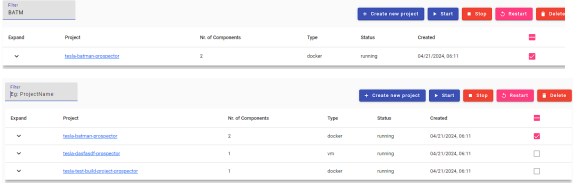
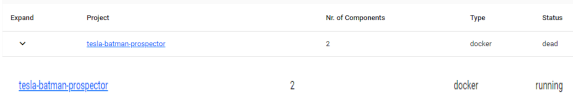
We could then create a setup method to create a new httpServer with the mocked nomad controller and client for testing our requests.











As for actually testing, it was purely a case of specifying the request to make and mocking them as they would be called in the production environment.

These were all run automatically on every commit to the repo, which meant that every piece of code we wrote couldn’t be merged unless it passed tests!

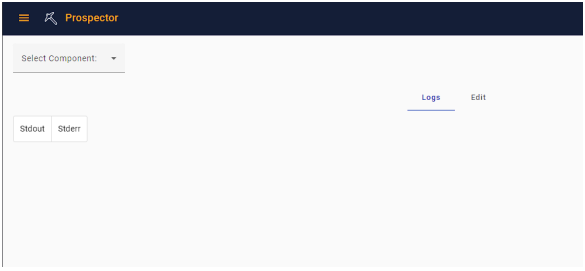
## Frontend Tests

Action	Result	Expected Result	Evidence
hen logging in with correct details	sets a cookie and directs you to the dashboard		

Verify that when logging in with wrong details	Does not redirect you and are presented with a warn saying wrong username or password	👍	
Inputting a url (/user-dashboard) that you are not permitted to access	Redirect to login page	👍	N/A
When on dashboard clear cookie, and try to access any page	Should be brought back to login	👍	N/A
When searching on the filter bar, and there is 1 filtered item, click on select all checkbox. When clearing the search, what is selected?	All items should not be selected but only the selected items that were filtered.	👍	
Selecting a project (with status running) in the table, followed by clicking start button	Nothing should happen	👍	N/A
Selecting a project (with status dead), followed by clicking start button	The project should turn to running status	👍	
Selecting a project (with status running), followed by clicking stop button	The project should turn to dead status	👍	<div>Status</div> <div>dead</div>

Selecting a project (with status dead), followed by clicking stop button	Nothing should happen		N/A				
Selecting a project (with status running), followed by clicking restart button	It will appear nothing has happened however, when checking components date it has updated, meaning it did restart		N/A				
Selecting a project (with status dead), followed by clicking restart button	Nothing should happen		N/A				
Selecting a project (with status running), followed by clicking delete button	The project should disappear from the table		N/A				
Selecting a project (with status dead), followed by clicking delete button	The project should disappear from the table		N/A				
Selecting multiple projects followed by any state button	Should yield the same expectation as single projects but for all selected projects		N/A				
Expand Button when clicked on row	Respective row should have another row expand showing component data and the option to restart it		<div><div>Expand</div><div>Project</div><div><div>^</div><div><a href="#">tesla-dasfasdf-prospector</a></div></div><div><div>↳</div><div><table><tr><th>Component</th><th>Image</th></tr><tr><td>dasfasd</td><td>debian-12-genericcloud-amd64</td></tr></table></div></div></div>	Component	Image	dasfasd	debian-12-genericcloud-amd64
Component	Image						
dasfasd	debian-12-genericcloud-amd64						
Expand button when already expanded and you click once again	The respective row should disappear and the table should look as normal		N/A				
Expand button when clicked on another row while already expanded	Should close the previous expanded row and new row should be expanded with new component data		N/A				
Expanded button when clicked already, and you use the filter	While searching the expanded row must stay persistently open until closed by the user. This		N/A				

search	includes when you search for something to make the row disappear.		
When clicking + create new project button	Should load user to create project page	👍	<div><div><div>☰🔗Prospector</div><div>Create your Prospector Project</div><div>Project Name</div><div>webserver*</div><div>Enter a name for your project, this will be used to identify it on the dashboard</div><div>Project type</div><div>ContainerVirtual Machine</div><div>Would you like to create a container or a virtual machine?</div><div>Submit</div></div></div>
When clicking Getting start button	Should load User to getting started page	👍	N/A
When clicking Deploy Recipe button	Should load User to deploy recipe page	👍	N/A
When clicking Create Project button	Should load User to create project page	👍	<div><div><div>☰🔗Prospector</div><div>Create your Prospector Project</div><div>Project Name</div><div>webserver*</div><div>Enter a name for your project, this will be used to identify it on the dashboard</div><div>Project type</div><div>ContainerVirtual Machine</div><div>Would you like to create a container or a virtual machine?</div><div>Submit</div></div></div>
Clicking Project in table	Should bring to project page	👍	<div><div><div>Select Component:testing</div><div>LogsEdit</div><div>✓ StdoutStderr</div><div><div>/docker-entrypoint.sh: /docker-entrypoint.d/ is not empty, will attempt to perform configuration</div><div>/docker-entrypoint.sh: Looking for shell scripts in /docker-entrypoint.d/</div><div>/docker-entrypoint.sh: Launching /docker-entrypoint.d/10-listen-on-ipv6-by-default.sh</div><div>10-listen-on-ipv6-by-default.sh: info: Getting the checksum of /etc/nginx/conf.d/default.conf</div><div>10-listen-on-ipv6-by-default.sh: info: Enabled listen on IPv6 in /etc/nginx/conf.d/default.conf</div><div>/docker-entrypoint.sh: Sourcing /docker-entrypoint.d/15-local-resolvers.envsh</div><div>/docker-entrypoint.sh: Launching /docker-entrypoint.d/20-envsubst-on-templates.sh</div><div>/docker-entrypoint.sh: Launching /docker-entrypoint.d/30-tune-worker-processes.sh</div><div>/docker-entrypoint.sh: Configuration complete, ready for start up</div></div></div></div>

Clicking non docker project	Should bring to project page but nothing on the page will work	👍	
When on user-createProject, try to submit without inputting any data	Submit button should be disabled until all data is filled	👍	