#### **Unit\Locations**

- ✓ An array of default locations can be returned
- ✓ A location can retrieve its associated operation shifts

## **Unit\OperationShifts**

- ✓ An operation shift can derive its parent operation
- ✓ An operation shift can derive its role type
- ✓ An operation shift can derive its assigned user when it is occupied
- ✓ An operation shift cannot derive its assigned user when it is vacant
- ✓ An operation shift can derive its role competency
- ✓ An operation shift cannot derive its role competency when it is unspecified
- √ An operation shift can derive its location
- ✓ An operation shift cannot derive its location when it is unspecified
- ✓ An operation shift can derive its steam locomotive

- ✓ An operation shift can not derive its steam locomotive when it is unspecified
- ✓ An operation shift can derive its powered locomotive
- ✓ An operation shift can not derive its powered locomotive when it is unspecified
- ✓ An operation shift can get all data pertaining to its children

# **Unit\Operations**

- ✓ An operation can retrieve its associated operation shifts
- ✓ An operation creates a pdf file in laravel storage when the calendar view is exported

### **Unit\PoweredLocomotives**

- ✓ An array of default powered locomotives can be returned
- ✓ A powered locomotive can retrieve its associated operation shifts

### **Unit\RoleCompetencies**

- ✓ A role type can be derived from a role competency
- ✓ A role competency has a corresponding tier between one and ten
- ✓ An array of default role competencies for a controller can be returned
- ✓ An array of default role competencies for a guard can be returned
- ✓ An array of default role competencies for a blockman can be returned
- ✓ An array of default role competencies for a powered locomotive can be returned
- ✓ An array of default role competencies for a steam locomotive can be returned
- ✓ A role competency can retrieve its associated operation shifts

# **Unit\RoleTypes**

- ✓ An array of default role types can be returned
- ✓ A user can retrieve its associated operation shifts

### **Unit\Roles**

✓ A role type can be derived from a role

- ✓ A user can be derived from a role
- √ A role competency can be derived from a role
- ✓ A role can also have a null value when no competency is set

### **Unit\SteamLocomotives**

- ✓ An array of default steam locomotives can be returned
- ✓ A steam locomotive can retrieve its associated operation shifts

### **Unit\Users**

- √ A user instance can be identified as myself
- ✓ A user instance can be identified as a non administrator
- ✓ A user instance can be identified as an administrator
- ✓ A user can retrieve its associated operation shifts

### **Feature\Locations**

✓ A guest cannot view locations

- ✓ A user can view all locations
- ✓ A user can view a location
- ✓ A user cannot store a location
- ✓ A user cannot update a location
- √ A user cannot destroy a location
- ✓ An admin can store a location
- ✓ An admin can update a location
- ✓ An admin can destroy a location

## Feature \ Operation Shifts

- √ The operation shifts index redirects to the operations index
- ✓ An operation shift redirects to its parent operation
- ✓ A user with a competency can register for an operation shift without a competency with the right role type
- ✓ A user with a competency can register for an operation shift with adequate competency with the right role type
- ✓ A user without a competency can register for an operation shift without a competency with the right role type
- ✓ A user without a competency cannot register
  for an operation shift with the right role type

- ✓ A user cannot register for an operation shift without the right role type
- ✓ A user cannot register for an occupied operation shift
- ✓ A user can pull out of a shift that they have registered for
- ✓ A user cannot pull out of a shift that is occupied by someone else
- ✓ A user cannot pull out of a vacant shift
- √ A user cannot store an operation shift
- √ A user cannot update an operation shift
- ✓ A user cannot destroy an operation shift
- ✓ An admin can store an operation shift
- ✓ An admin can update an operation shift
- √ An admin can destroy an operation shift
- ✓ An admin can register for an operation shift irrespective of competencies and role type

# **Feature\Operations**

- √ A guest cannot view operations
- ✓ A user can view operations
- √ A user can view an operation
- ✓ A user can view operations in the calendar
- √ A user can export operations to pdf download
- ✓ A user cannot store an operation

- ✓ A user cannot update an operation
- √ A user cannot destroy an operation
- ✓ An admin can store an operation
- ✓ An admin can update an operation
- ✓ An admin can destroy an operation

### **Feature\PoweredLocomotives**

- ✓ A guest cannot view powered locomotives
- ✓ A user can view all powered locomotives
- ✓ A user can view a powered locomotive
- ✓ A user cannot store a powered locomotive
- ✓ A user cannot update a powered locomotive
- ✓ A user cannot destroy a powered locomotive
- ✓ An admin can store a powered locomotive
- ✓ An admin can update a powered locomotive
- ✓ An admin can destroy a powered locomotive

## Feature\RoleCompetencies

- √ A guest cannot view role competencies
- √ A user can view role competencies
- ✓ A user can view a role competency
- ✓ A user cannot store a role competency
- ✓ A user cannot update a role competency

- √ A user cannot destroy a role competency
- ✓ An admin can store a role competency
- ✓ An admin can update a role competency
- ✓ An admin can destroy a role competency

### Feature\RoleTypes

- ✓ A guest cannot view role types
- √ A user can view all role types
- √ A user can view a role type
- ✓ A user cannot store a role type
- ✓ A user cannot update a role type
- √ A user cannot destroy a role type
- ✓ An admin can store a role type
- ✓ An admin can update a role type
- ✓ An admin can delete a role type

## Feature\Roles

- ✓ A guest cannot view roles
- ✓ A user can view roles
- √ A user can view a role
- ✓ A user cannot store a role
- ✓ A user cannot update a role
- ✓ A user cannot destroy a role

- ✓ An admin can store a role
- ✓ An admin can update a role
- ✓ An admin can destroy a role
- ✓ An admin cannot create roles outside a user edit view

### Feature\SteamLocomotives

- ✓ A guest cannot view steam locomotives
- ✓ A user can view all steam locomotives
- ✓ A user can view a steam locomotive
- √ A user cannot store a steam locomotive
- √ A user cannot update a steam locomotive
- ✓ A user cannot destroy a steam locomotive
- ✓ An admin can store a steam locomotive
- ✓ An admin can update a steam locomotive
- ✓ An admin can destroy a steam locomotive

#### **Feature\Users**

- √ A guest cannot view all the users
- ✓ A user can view all users
- ✓ A user can view a user
- √ A user cannot store a user
- √ A user can update themselves

- ✓ A user cannot give themselves administrative privileges
- ✓ A user cannot modify their own date of last inspection
- √ A user cannot update a different user
- √ A user cannot destroy a user
- ✓ An admin can store a user
- ✓ An admin can update a user
- ✓ An admin can destroy a user
- ✓ An admin cannot destroy themselves