## **Specifications for Phase 2**

As part of phase 2, you will have to create models for <code>Employee</code>, <code>Store</code>, and <code>Assignment</code> and write unit tests for these models. To make sure you are able to build these models and tests, below are some specs for each of these models.

## Stores must:

- 1. have all proper relationships specified
- 2. have values which are the proper data type and within proper ranges. Remembering the 2nd Rule of Software Development, that means:
  - zip code must be present and should be legitimate five digit zip code, validated with a regex
  - phone must be present and a 10 digit number, but the user may input values with dashes, dots or other common formats – e.g., 999-999-9999; 999.999.9999; (999)
     999-9999 are all acceptable
- 3. have a store name and it must be unique (case-insensitive)
- 4. have a street and city (no other validation required)
- 5. have a state that is (for now) either PA, OH, or WV
- 6. have phone values that are saved in the system as a string of 10 digits only, regardless of the format the user inputs.
- 7. have the following scopes:
  - 'active' -- returns only active stores
  - 'inactive' -- returns all inactive stores
  - 'alphabetical' -- orders results alphabetically by store name
- 8. have the following methods:
  - 'make\_active' -- which flips an active boolean from inactive to active and updates the record in the database
  - 'make\_inactive' -- which flips an active boolean from active to inactive and updates the record in the database

Employees must:

- 1. have all proper relationships specified
- 2. have a first and last name (no other validation required)
- 3. have values which are the proper data type and within proper ranges. Remembering the 2nd Rule of Software Development, that means:
  - phone must be present and a 10 digit number, but the user may input values with dashes, dots or other common formats – e.g., 999-999-9999; 999.999.9999; (999)
     999-9999 are all acceptable
  - social security number must be present and a 9 digit number, but the user may input values with dashes, spaces or other common formats e.g., 999-99-9999; 999 99
    9999; 99999999 are all acceptable
  - have a date of birth that is a proper date and at least 14 years in the past, as there are regulations against hiring anyone under the age of 14.
- 4. have social security numbers which are unique in the system.
- 5. have phone values that are saved in the system as a string of 10 digits only, regardless of the format the user inputs.
- 6. have social security number values that are saved in the system as a string of 10 digits only, regardless of the format the user inputs.
- 7. have a role that is either an employee, a manager, or an admin
- 8. have boolean methods associated with each role (e.g., manager role?)
- 9. have the following scopes:
  - 'active' -- returns only active employees
  - 'inactive' -- returns all inactive employees
  - 'alphabetical' -- orders results alphabetically by last name, first name
  - 'is\_18\_or\_older' -- returns all employees 18 years old or older
  - 'younger\_than\_18' -- returns all employees under 18 years old
  - 'regulars' -- returns all employees who have the role 'employee'
  - 'managers' -- returns all employees who have the role 'manager'
  - 'admins' -- returns all employees who have the role 'admin'

## 10. have the following methods:

- 'name' -- which returns the employee name as a string "last\_name, first\_name" in that order
- 'proper\_name' -- which returns the employee name as a string "first\_name last\_name"
  in that order with a space between them
- 'current\_assignment' -- which returns the employee's current assignment or nil if the employee does not have a current assignment
- 'over\_18?' -- which returns a boolean indicating whether this employee is over 18 or not

- 'make\_active' -- which flips an active boolean from inactive to active and updates the record in the database
- 'make\_inactive' -- which flips an active boolean from active to inactive and updates the record in the database

## Assignments must:

1. have all proper relationships specified

- 2. have start and end dates that are proper dates, if given. In addition:
  - every assignment must have a start date and it must be on or before the present date
  - o an assignment's end date (if it exists) must be after its start date
- 3. have a store\_id and it must be restricted to stores which exist and are active in the system
- 4. have a employee\_id and it must be restricted to employees who exist and are active in the system
- 5. have the following scopes:
  - 'current' -- which returns all the assignments that are considered current
  - 'past' -- which returns all the assignments that have terminated
  - 'by\_store' -- which orders assignments by store
  - 'by\_employee' -- which orders assignments by employee name (last, first)
  - 'chronological' -- which orders assignments chronologically with the most recent assignments listed first
  - 'for\_store' -- which returns all assignments that are associated with a given store (parameter: store object)
  - 'for\_employee' -- which returns all assignments that are associated with a given employee (parameter: employee object)
  - 'for\_role' -- which returns all assignments that are associated with employees of a given role (parameter: role)
  - 'for\_date' which returns all assignments that were/are active on that particular date (parameter: date)
- 6. have a callback that will automatically end the employee's current assignment if a new assignment is created for that employee.

NOTE: In this phase we will *not* validate that any active field is actually a boolean.