Database Design in 3NF

employees (<u>id</u>, first_name, last_name, ssn, date_of_birth, phone, role, active)

stores (<u>id</u>, name, street, city, state, zip, phone, active)

assignments (<u>id</u>, <u>store_id</u>, <u>employee_id</u>, start_date, end_date)

Underlines:
<u>Solid underlined</u> fields are primary keys;
<u>Dotted underlined</u> fields are foreign keys;
<u>Double underlined</u> fields are composite keys that are both primary and foreign keys.

Database Design Notes:

1. Strictly speaking, having zip code in the locations table creates a transitive dependency, but given the limited size of the system (the greater Pittsburgh area) there is no need to normalize and move zip code and primary city & state into its own table.

2. A employee's current assignment is determined by finding the employee's assignment that has a NULL value in end_date.

3. All phone numbers and social security numbers are saved as a string of numbers without any other characters. Phone numbers include area code, prefix, and suffix as one numerical string.