Proposal Template

Project Participants:
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Title:
The Tree Harvest

Executive Summary:
"The Tree Harvest" REST Web API is designed for Foresters who are working in multiple tree fields to harvest multiple trees. There are many locations, or "Tree Fields", and every location has multiple trees (treeNames). This is essentially an API that shows where a Forester has been working, and which Trees have been harvested. It is designed from the Foresters point of view, where the Tree Fields exist only if a Forester works in them (goes logging, harvests the trees/timber). There can be only one Tree Field for any given Forester, but Foresters can work in multiple Tree Fields. Trees can be in many Tree Fields, and Tree Fields can have many Trees.

Initial Features:
- Create Foresters
- Get a List of Foresters
- Update Foresters
- Delete Foresters
- Create new TreeFields
- Get a List of TreeFields
- Update TreeFields
- Delete Tree Fields by ID, without deleting Foresters
- Create, or POST, new trees
- Get a List of Trees
- Delete Trees (Only can delete those trees that do NOT exist in a TreeField)

Relationships:
- **ManyToMany**: There are Many Trees (i.e. Species of Trees) in Many Tree Fields (i.e. Forests, or Parks)
- **OneToMany**: One Forester can have Many Tree Fields, but Tree Fields are assigned to only One Forester (In the point of view of this API)

Entity Notes:
Forester - Someone who is going into a TreeField and cutting down trees. Each Forester owns a relationship with the TreeField. (This person is like a Logger or Lumberjack).
TreeField - Like a Park, or a Forest. Data was pulled from National Parks, where timber is harvested periodically. TreeField is the name of the Entity used in this project.
Tree - Tree species. The treeName is the common name, the treeBinomial is the Binomial scientific name, and lumberType is the type of lumber that is being harvested, or collected, by the Forester.

Database Design:
See ERD

Stretch Goals:
- Get a list of only those trees that have been harvested; Updating trees; Adding photos.
- Adding an Entity Genus name (from Binomial Name. This would be a one to many situation. One Genus name has many common names).