**Objectives**

The objective of this lesson is to learn how forms work in Django using Django’s form framework.

**What your program must have**

Build an app that you could use to track inventory (such as items in your pantry, widgets in a warehouse, etc.).

- A category has:
  - name
  - description
  - parent category
- An inventory item has:
  - name
  - description
  - quantity
- Pages
  - Index page with a list of categories
  - Clicking on a category shows you all items for that category
  - Clicking +1 on an item increments the quantity available. Clicking on a -1 decrements the quantity for the item.
- Extra Credit Ideas:
  - A search form
  - Use ajax for form submission. A library like jQuery is completely fine.

**Resources**

- How to make a model its own parent: [https://docs.djangoproject.com/en/1.5/ref/models/fields/#foreignkey](https://docs.djangoproject.com/en/1.5/ref/models/fields/#foreignkey) “To create a recursive relationship – an object that has a many-to-one relationship with itself - use models.ForeignKey(‘self’).”
- Forms in Django (introductory material): [https://docs.djangoproject.com/en/1.8/topics/forms/](https://docs.djangoproject.com/en/1.8/topics/forms/)
- Form widgets reference: [https://docs.djangoproject.com/en/1.8/ref/forms/widgets/](https://docs.djangoproject.com/en/1.8/ref/forms/widgets/)
- Handling forms with class-based views: [https://docs.djangoproject.com/en/1.8/topics/class-based-views/intro/#handling-forms-with-class-based-views](https://docs.djangoproject.com/en/1.8/topics/class-based-views/intro/#handling-forms-with-class-based-views)
- Shortcuts (cheat codes) to making forms easier in Django using class-based views: [https://docs.djangoproject.com/en/1.8/topics/class-based-views/generic-editing/](https://docs.djangoproject.com/en/1.8/topics/class-based-views/generic-editing/)
- Forms API reference: [https://docs.djangoproject.com/en/1.8/ref/forms/api/](https://docs.djangoproject.com/en/1.8/ref/forms/api/)
- Reverse lazy api: [https://docs.djangoproject.com/en/1.8/ref/urlresolvers/#reverse-lazy](https://docs.djangoproject.com/en/1.8/ref/urlresolvers/#reverse-lazy)