

W200 Individual Project Proposal

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Stashbuster

Concept:

I am an avid knitter and certified fibre-a-holic. (Full disclosure: there is an online system that has some of the features I would like to code, called "Ravelry.com" - so this is not unique, but some of the features are).

Basically the main features would be:

Inventory of each skein of yarn, characterized by: weight, colour, fibre type, yardage, twist, etc.

Functions that can be done with said inventory would include:

1. Select a project (from external source: web, book, magazine), and input requirements about length of yarn required, weight, etc.

With this information, assess the stash for : yarn that meets basic requirements.

Furthermore, allow filtering for colour or colour combinations, or, for instance - combining two thin yarns to equal one fatter yarn (as specified by the pattern).

2. Work the other way - assess the stash by looking at a yarn and seeing what 'basic projects' could be made from it - e.g. is there enough to make a hat from something red?
3. Eventually, be able to scrape the web for yarns that either could supplement stash yarns or if nothing available in stash, then what would the cost of buying enough yarn for the project be?
4. Supplemental: a knitting needle library - with available needles (and all their attributes) - and will the new proposed project require new needles or not?

Outline of Classes/Attributes/Methods:

Class: Menu

Attributes:

Methods:

- Open Menu
- Select Task
 - Task: New Project

- Task: New Fiber
- Task: Query Inventory
- Task: Edit Project
- Task: Edit Fiber

Class: Fiber

Attributes:

- Fiber Type (wool, angora, silk, cotton, etc.)
- Weight (g)
- Colour(s)

Methods:

- Add New Fiber
- Edit Existing Fiber

SUBCLASSES:

Subclass: Yarn

Attributes:

- Length of skein
- Twist (high, med, low)
- Name
- Weight (Lace, Sock, Sport, DK, Worsted, Aran, Bulky, Super Bulky, Jumbo)
- Source (Purchased, Handspun)

Methods:

- Inherited
- ComboYarn (yarn weight,length,colour produced when two base yarns are joined)
- Possible Project (given yarn instance, determine possible projects)

Subclass: RawFiber

Attributes:

- Name
- Type (Combed Top, Roving, Rolag)
- Preparation (Worsted or Woolen)

Methods:

- Inherited

Class Project:

Attributes: None

Methods:

- Create New Project
- Finish Project (would include updating inventory of yarn or fiber, whichever is applicable)
- Edit Project

SUBCLASSES:

Subclass: KnittingProject

Attributes:

- Type (Hat, Shawl, Scarf, Sweater, Mitts, Socks, cowl)
- Size (Baby, Child, Adult)
- Meters yarn required
- Type of yarn required (weight, twist, fiber type)
- Special Techniques if any (Lace, cables, Steeked, etc.)

Methods:

- Do I have the correct tools?
- Yarn Source: Use existing yarn? Or new? Or combination?

Subclass: SpinningProject

Attributes:

- Singles Twist: S or Z
- Number of Plies (1 to n)
- Plied Twist
- Spin type (Worsted, Semi-worsted or woolen)

Methods: (none for now)

Subclass: GeneralFibreProject (for future)

Attributes:

Methods:

Class Tool

Attributes:

- Type (Straight Needles, DPNs, Circular Needles, Crochet Hook)
- Size (mm)
- Length (for Circular Needles)
- Material (metal, wood, carbon fiber, other)
- Rating (my liking for working with)
- Manufacturer

Methods:

- Static: Convert mm needle size to US or UK standards