**Development Plan**

**Relational Schema**

Cultivars = (ID: integer, icon: string, image:string, indoorStart1: integer, indoorStart2: integer, outdoorStart1: integer, outdoorStart2: integer, outdoorPlant1: integer, outdoorPlant2: integer, height: integer, spacing: integer, plantingDepth: real, growingTime1: integer, growingTime2: integer, type: string, winterCrop: boolean, summerCrop: boolean, coverCrop: boolean, tree: boolean, shrub: boolean, vine: boolean, annual: boolean, biannual: boolean, perennial: boolean, nitrogenFixing: Boolean, added: DateTime),

ID -> icon, image, indoorStart1, indoorStart2, outdoorStart1, outdoorStart2, outdorPlant1, outdoorPlant2, height, spacing, plantingDepth, growingTime1, growingTime2, type, winterCrop, summerCrop, coverCrop, tree, shrub, vine, annual, biannual, perennial, nitrogenFixing, added

Images = (ID: integer, *CultivarsID*: integer, imgSrc: string),

ID -> imgSrc

imgSrc -> ID

Common Names = (ID: integer, *GenusSpeciesID*: integer, comName: string, cultName: boolean),

ID -> comName, cultName

GrowingZones = (ID: integer, *CultivarsID*: integer, zoneNum: integer, firstFrost: date, lastFrost: date),

ID -> zoneNum, firstFrost, lastFrost

firstFrost -> ID, zoneNum, lastFrost

lastFrost -> ID, zoneNum, firstFrost

zoneNum -> ID, firstFrost, lastFrost

SunExposure = (ID: integer, *CultivarsID*: integer, eName: string),

ID -> eName

eName -> ID

OpponentPlants = (ID: integer, *CultivarsID*: integer, *GenusSpeciesID*: integer, oNotes: string),

ID -> oNotes

CompanionPlants = (ID: integer, *CultivarsID*: integer, *GenusSpeciesID*: integer, cNotes: string),

ID -> cNotes

PestResistance = (ID: integer, *CultivarsID*: integer,prName: string),

ID -> prName

prName -> ID

DiseaseResistance = (ID: integer, *CultivarsID*: integer, drName: string),

ID -> drName

drName -> ID

EdibleParts = (ID: integer, *CultivarsID*: integer,part: string),

ID -> part

part -> ID

UserList = (ID: integer, *CultivarsID*: integer,lName: string),

ID -> lName

lName -> ID

GenusSpecies = (ID: integer, gName: string, sName: string, lowPH: real, highPH, cgNam),

ID -> gName, sName, lowPH, highPH, cgName

gName, sName -> ID, lowPH, highPH, cgName

SoilTypes = (ID: integer, *GenusSpeciesID*: integer, soilName: string),

ID -> soilName

soilName -> ID

Fertilizers = (ID: integer, *GenusSpeciesID*: integer, fertName: string),

ID -> fertName

fertName -> ID

CommonDiseases = (ID: integer, *GenusSpeciesID*: integer, dName, dCause),

ID -> dName, dCause

dName -> ID, dCause

CommonPests = (ID: integer, *GenusSpeciesID*: integer, pName, pCause),

ID -> pName, pCause

pName -> ID, pCause

States = (ID: integer, *CultivarsID*: integer, name: string),

ID -> name

name -> ID

TypeOfProp = (ID: integer, *GenusSpeciesID*: integer, name: string)

ID -> name

Name -> ID

**Databases and Software Platforms/Languages**

MySQL Server, XAMPP, NetBeans

PHP, SQL, HTML, Java

**Application Data**

Information on cover crops and planting times will be from https://pubs.ext.vt.edu/426/426-334/426-334\_pdf.pdf

Information on transplanting, planting date ranges, family types, and sun requirements will be from <http://store.msuextension.org/publications/YardandGarden/MT199308AG.pdf>

Information on families and companion planting will be from http://en.wikipedia.org/wiki/List\_of\_companion\_plants

Information on companion planting will be from planting-guide/

http://permaculturenews.org/2010/07/30/companion-

Information on specific cultivars will come from http://www.burpee.com/, http://parkseed.com/,http://www.territorialseed.com/, http://www.johnnyseeds.com/, http://www.seedsavers.org/,http://www.rareseeds.com/, http://www.seedsofchange.com/Home.aspx,http://www.fedcoseeds.com/, http://www.southernexposure.com/, http://www.gurneys.com/ and http://www.plantationproducts.com/pages/cfHome.cfm (all are seed companies). This includes soil type, growing times, growing zones, disease resistance, images, and sun exposure.

Information on common names of herbs will come from [http://www.herbs2000.com](http://www.herbs2000.com/)

Information on suggested cultivars will come from various University Agricultural Extension websites.