CSE308

Project Class Discussion

TA Support

- All TAs are assigned
  - Names listed on class Web site, photos to follow
- Current TA activity
  - In class oral communications points (roster with points now posted)
  - Piazza soon to be set up - soon to be tested (check the class Web site for instructions)
  - All teams have selected their states
  - HW Dropbox set up soon with deliverable due dates
  - DB accounts set up soon
Review Algorithm Logic

- Step one - build an initial set of congressional districts (number set by user) using graph partitioning
  - Build a graph where each node is referred to as a cluster, and each cluster initially corresponds to a precinct. Each cluster will contain aggregated data (election results, population, demographics, etc.). Each edge will contain “attraction” data (e.g., community of interest, separators such as county lines, city lines, bodies of water, highways, etc.)
  - Combine pairs of clusters where each participating cluster is below a population threshold. Pairs are determined by analyzing edge attraction.
  - Calculate edges for the new cluster graph. New edges should contain appropriate attraction data.
  - Repeat 2 steps above until the number of clusters equals the number of desired districts
- Apply simulated annealing to the initial set of congressional districts defined in step one

Review Status of High Priority Project Tasks

- Understand terminology and concepts in problem domain (read background references)
- Read the districting language in the constitutions of your 3 states
- Start to write your objective function (on paper)
- Think about your system approach to grouping scenarios
- Build a simple system prototype to help understand SW design issues
- Understand advantages and limitations of algorithmic options
- Think about the components in your GUI
- Think about data normalization (how do you use different metrics in a single objective function)