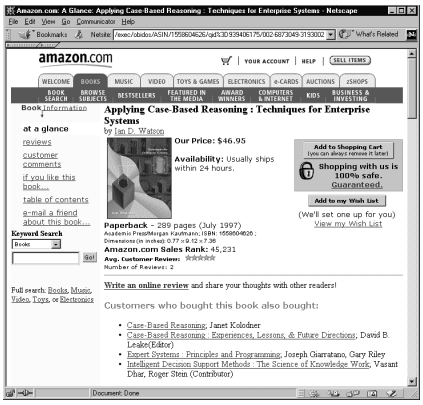
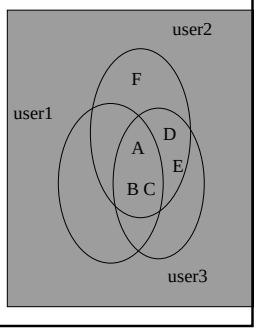


- **Users 1, 2, and 3 in same group**
  - **{A, B, C} in common**
- **D & E can be recommended to User 1 based on its shared interest**
- **Recommendation based on observation**
  - **no detailed representation of D & E**
  - **users must be identified**



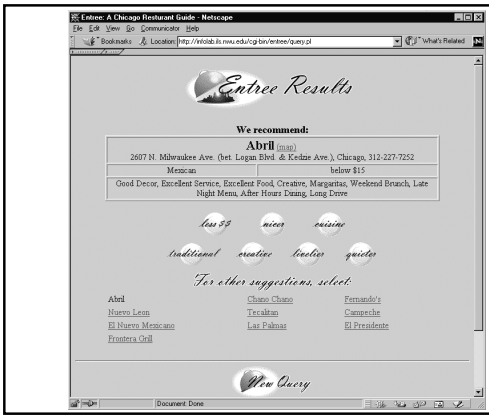
Collaborative Filtering Example

- **Write done 2-5 unique numbers between 1 and 9**

- **Pick a number**
- **Find all people who wrote down that number**
- **Find most frequent number among those people**

Past Project ideas
- inverted pendulum using fuzzy logic (+ demo)
- predicting stock price (don't do it)
- crossword puzzle generation via GA
- steady cam algorithm
- image correction (peacock logo removal)
- information fusion for machining (data from Kai)
- case based reasoning: music, wine, new and used car recommend
- character recognition via NN
- email handling system for NL
- Game Player - Magic like game

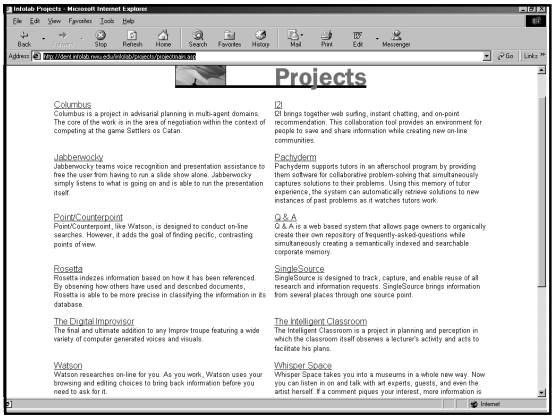
Project Ideas from the book
- Jang chapter 21 GA to play Othello
- Jang chapter 22 Implement the color matching neuro-fuzzy system



Other Recommendation applications:

- **Select movie to watch**
- **Select new/used car to buy**
- **Select wine for a meal**

http://dent.infolab.nwu.edu/infolab/projects/projectmain.asp



Academic Demonstrators (Watson 3.3):

Diagnosis
- **Hearing disorders**
- **Heart Failure**
- **Operating system errors**
- **Architectural defects**

- **Planning**
  - **Battle planning**
  - **Medical treatments**
  - **Manufacturing planning**
- **Legal Reasoning**
- **Analogous Reasoning**
- **Arbitration**
- **Adaptation**
- **Tutoring**

Industrial Applications of CBR (Watson Chapter 4)

Interesting web sites:

Cyc: Cycorp, Inc, is the leading supplier of formalized common sense. The knowledge base is built upon a core of over 1,000,000 hand-entered assertions (or "rules")
http://www.cyc.com/overview.html

Robocup: By the year 2050, Develop a team of fully autonomous humanoid robots that can win against the human world soccer champions.
http://www.robocup.org/
http://www-2.cs.cmu.edu/~robocup2001/