**Today’s Menu**

**A Look At The Past:**
What have we done so far?

**This Seminar:**
IR (James is leading)

**Next Seminar:**
Start a different 2nd half

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**IR**

**SIMILAR: REQUESTS → 2DOCS**

determining similarity

REQUESTS (queries)

search formulation

LANG (representation)

indexing

DOCS (information items)

- A single terms / postcoordination
  (e.g., “info. ADJ retrieval” at search time only in a post-coordinated way)
- A composite / precoordination

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**IR Measures**

Precision (accuracy) = C / B
Recall (coverage) = C / A
F-measure = \((1 + \beta^2) \times \frac{P \times R}{\beta^2 \times P + R}\)
(F1-measure: \(\beta = 1\); \(P\) and \(R\) are evenly weighted)

<table>
<thead>
<tr>
<th>Result</th>
<th>Relevant</th>
<th>Precision</th>
<th>Recall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Page1</td>
<td>Yes</td>
<td>2 / 5 = 40%</td>
<td>2 / 10 = 20%</td>
</tr>
<tr>
<td>Page2</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Page3</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Page4</td>
<td>Yes</td>
<td>2 / 5 = 40%</td>
<td>2 / 10 = 20%</td>
</tr>
<tr>
<td>Page5</td>
<td>No</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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**What have we achieved so far?**

- Basic definitions
  - Purpose of software reuse
  - Software reuse
  - Reusable assets can be either ____ or ______.
  - Reusability
- History
  - As old as “software engineering” coined in 1968, NATO
- Threads
  1. Business and Finance (Chris)
  2. Measurement and Experimentation (Ken)
  3. Componentry
  4. Domain engineering / product line engineering (Sandeep)
  5. Programming languages (Alejandro)
  6. Libraries (Sreekanth; James)
  7. Architectures (Tanmay)
  8. Generative methods (Jon)
  9. Reliability and Safety
  10. Requirements reuse (Nash)
  11. Re-engineering for reuse (Tan)
A picture we’ve been very familiar with

A picture we’ve been very familiar with

Course Project

stem-and-leaf display/plot

mean = 91%, median = 92%

3-good or minor problem; 2-some problem; 1-weak

Appendix: Supplementary material usually attached at the end of a piece of writing

These pictures are meant to entertain you. There is no significant meaning to the arrows between the boxes.

-- A speaker at a recent software architecture conference, coming to a complex but ultimately inadequate boxes-and-lines-everywhere view-graph of her systems’ architecture and deciding that trying to explain it in front of a crowd would not be a good idea.

What’s coming up?

Term paper topic

Discussion (optional): send me an e-mail to arrange an appointment
  > Nan’s available time: Wed (3/10): 8am-11am & 1pm-4pm

E-mail (mandatory): will be graded
  > Due: 23:59pm, Wednesday, March 10

2nd half planning

Class meets at 3:30pm on Monday, March 22

Have a good spring break!