

# Final Takeaway

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# Final Takeaway



## Search

Old problem, resolved in many ways

- Information retrieval

Search usually taken for granted

- Until it is not

Search engines and options

Apache Solr and SolrNet

- Don't reinvent the wheel

Implement search in .NET

Search is hard and few know how to do it

And now you are part of this search club



# Starts with a User's Needs



User's need

Needs to be solved

“Find a course on Git using a GUI”

Search engine should return what you need

Problem with/of search

- AND, OR, LIKE, -ing



# Solr Search Server



**Download, unzip, run**

- **Java as prerequisite**

**Define your documents**

**Schema or Schemaless**

**Schema API**

**SolrCloud for bigger needs**

- **Apache Zookeeper**



# SolrNet



Makes working with Solr easy

Familiar for .NET developers

Get, build and hopefully contribute

Sample app

Connect

- ServiceLocator, CastleWindsor, Ninject, AutoFac

Map to schema

Fiddler is your friend



# Indexing



Indexed documents required for search

Multiple types of content

- Documents
- Binary files

Solr → SolrNet

- Add() → /update
- Extract() → /extract

# Querying



Whole point of search

Request for information

Database vs. search engine

Solrconfig.xml

Query, phrase queries, proximity, filter queries, range queries, sorting & paging

Get only the Fields that you need



# Relevancy



Improving relevancy: harder than you think

Second page not a frequently visited page

Precision vs. recall

Look at the big picture

Multiple ways to improve relevancy

- Query fields, boost, boost queries, boost functions, stemming, lemmatization, synonyms, spell check, phonetic search and multilingual search





# Better Results



**Features that help the search experience**

**Faceting**

**Filtering**

**Stats**

**Highlighting**

**ExtraParams**





# Looking into the Future: Solr 6

## **Solr 5.5 at time of current release**

- What we used in this course
- Plenty of 4.x and earlier out there

## **Solr 6 is here**

- SQL on Solr
- Parallel SQL engine
- Graph capabilities



# A Big Thank You!

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