

# Information Retrieval and Natural Language Engineering for Intelligent Online Recruiting Servicing

by Jenya Kovalchuk

# Agenda

- Online recruiting servicing
- Company's profile
- Problem domain
- Business processes
- Data collection, processing, storage, and representation
- Problems to solve
- Discussion

# Background

- CV writing, Career management, Job search engines...
- Job Boards: jobs.ac.uk, Monster, CareerBuilder...
- ***JobServe, ltd.*** : <http://www.jobserve.com/>

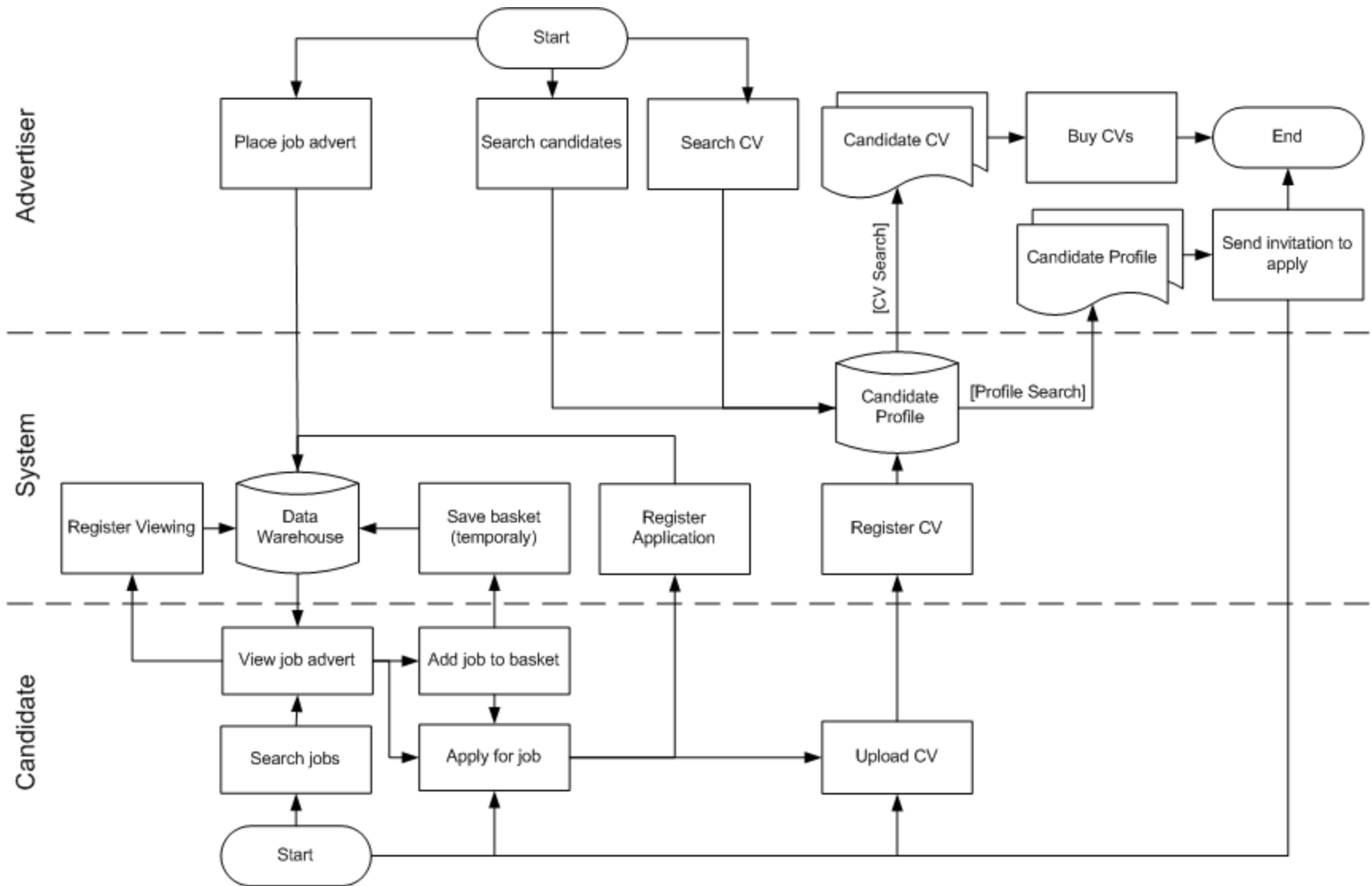
# Company's Profile

- ***JobServe, Ltd.*** - the world's first Online Recruitment Service, established in 1993 as a UK IT specific service.
- Provide job seekers the ability to search and apply for advertised roles.
- Revenue comes from online job advertising and other associated recruitment products such as CV search.
- Major customers are the global Recruitment Agencies.
- Now also Finance, Sales, Healthcare, HR, Public sector, and some other industries.
- Territories: UK, USA, Canada, Australia, Thailand.

# Scope

Job searching and matching technologies

# Business Process



# Candidates

- Active
- Dormant
- Visitors

## **Relevant data:**

- Profiles
- CVs
- Applications
- Skills
- Searches
- Job Views

# Services Facilitating Applications

## **Advertisers:**

- Search Results
- CV Sale
- CV Alerts
  - Instant
  - Daily
- Featured Jobs

## **Candidates:**

- Search Results
- Basket
- Job Alerts
  - Instant
  - Daily
- Pushing Jobs

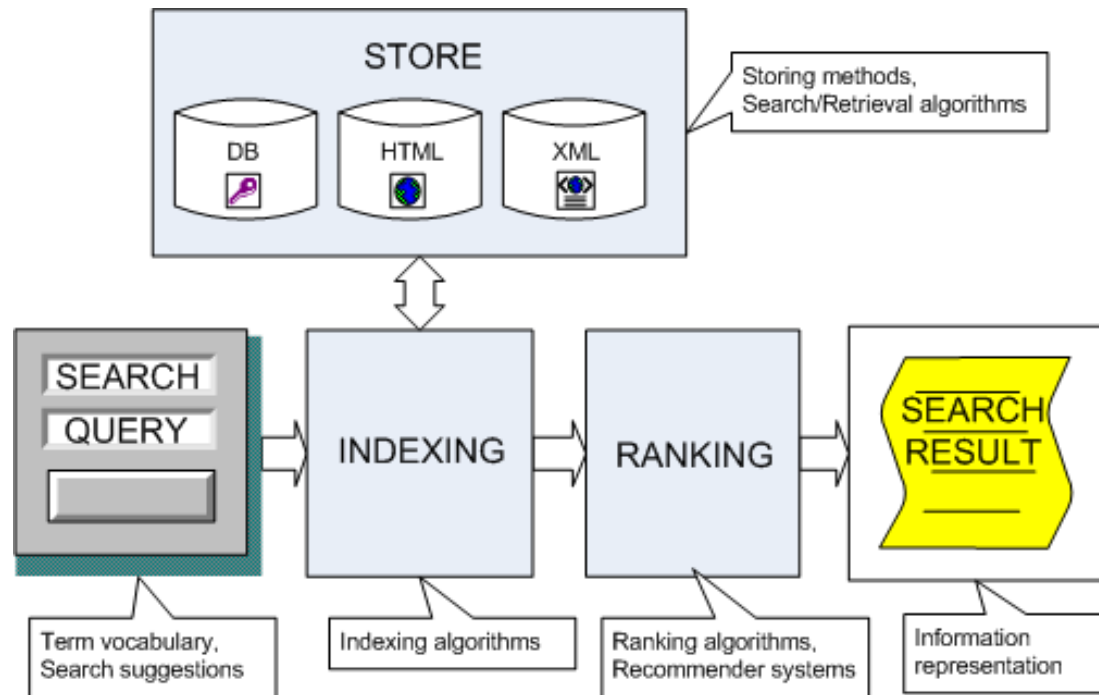
# Data Collection

- Job adverts via the web portal
- Job adverts via the web service
- Candidates' profiles and CVs via the web portal
- Candidates' behaviour tracking on the web portal

# CV Processing

- Original CV
- Extracted Xml
- HTML Version of extracted data

# Search Process



## Research areas concerned:

- Human-computer interaction: web design, information collection and representation;
- Search & recommender mechanisms: Information Retrieval, NLP, Web-log Analysis, Cluster Analysis, Pattern Recognition.

# Project

Career Path prediction and  
recommendation system

# Mini-Projects

- CV processing
- Term search frequency analysis
- Matching and ranking algorithms
- Jobs' cluster analysis
- Candidates' cluster analysis
- Web-log analysis
- Application predictor

# Discussion

Thank you for your attention!

Q & A