

Εργασία: Μηχανή αναζήτησης άρθρων σχετικών με τον COVID-19

Παράδοση Εργασίας

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Folder Structure:

```
src
> filtered
> sampled
> index*
> IndexFiles.java
> GUI.java
> parseFilesWithDate.py
```

*: Ο φάκελος **index** δημιουργείται αφού τρέξει το `IndexFiles.java`.

Το script **parseFilesWithDate.py** φορτώνει τα αρχεία json του φακέλου **sampled** και δημιουργεί τα φιλτραρισμένα αρχεία στον φάκελο **filtered**.

Το `IndexFiles.java` διατρέχει τα αρχεία του φακέλου **filtered** και δημιουργεί το ευρετήριο.

Η εφαρμογή τρέχει από το **GUI.java**, όπου δημιουργεί το γραφικό περιβάλλον και υλοποιεί την εύρεση εγγράφων.

How to build: Compile `IndexFiles.java` and `GUI.java`, run `IndexFiles` to create the index, and then run `GUI`. Το GUI υλοποιήθηκε με `Swing`.

Συλλογή εγγράφων: Τα έγγραφα προέρχονται από το dataset CORD-19 (<https://www.semanticscholar.org/cord19>)

Προεπεξεργασία του dataset (`parseFilesWithDate`):

Από κάθε αρχείο του φακέλου **sampled** εξάγονται οι πληροφορίες κωδικού(`paper_id`), τίτλου(`title`), συγγραφέων(`authors`), ημερομηνία έκδοσης(`date`), ιδρυμάτων(`institutions`) και του περιεχομένου(`text`), και εισάγονται σε γραμμές στα αρχεία του φακέλου **filtered**.

Indexing:

Τα αρχεία από το φάκελο **filtered** δημιουργούν Documents με fields "`paper_id`", "`title`", "`authors`", "`date`", "`institutions`" και "`text`" (default).

Searching:

Οι λειτουργίες του Indexing και του Searching είναι απλές. Πάντα γίνεται search με βάση το text, στο οποίο εκτός από τα περιεχόμενα υπάρχουν και πληροφορίες για τα fields. Αν ο χρήστης εισάγει title, authors, institutions, γίνεται επίσης search στα αντίστοιχα fields. Τα fields date, paper_id δεν παίζουν ρόλο στο search, υπήρχαν λίγα dates.

Σε multiple field query, επιστρέφει το OR τους.

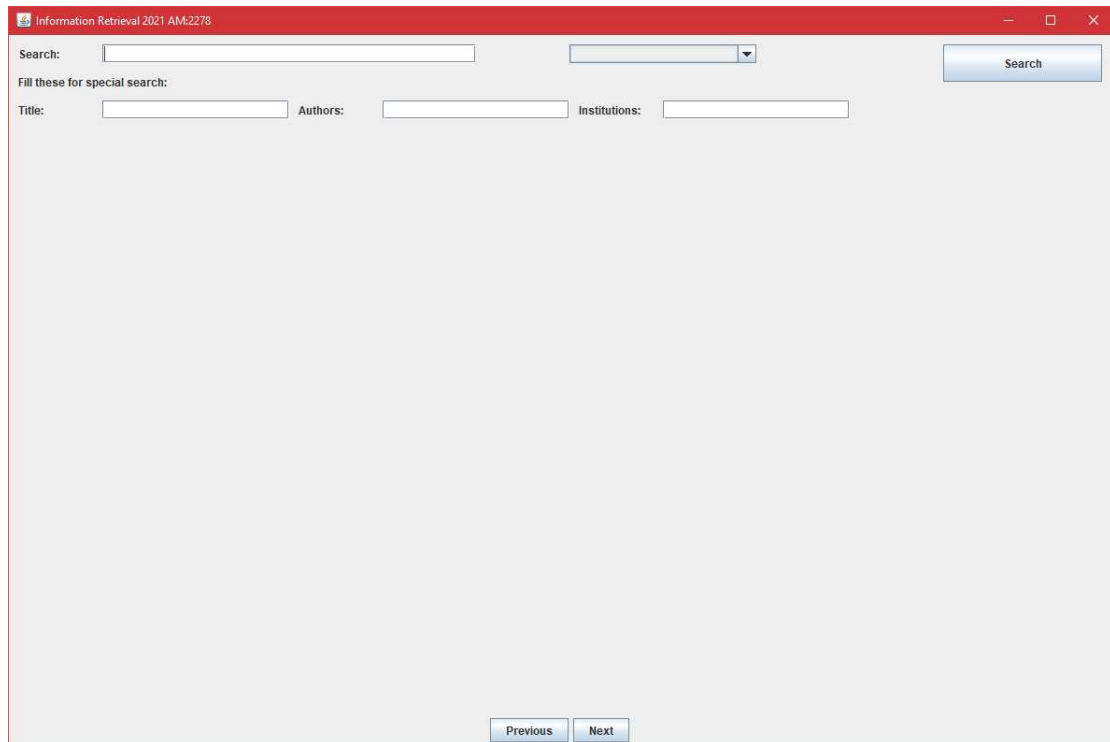
Η εύρεση περιορίζεται στα 100 πρώτα.

History:

Η εφαρμογή κρατάει ιστορικό του text query.

Demo:

Με τη χρήση των κουμπιών next/prev εμφανίζει την επόμενη/προηγούμενη δεκάδα εγγράφων που ταιριάζουν.



The screenshot shows a web application window titled "Information Retrieval 2021 AM:2278". The interface includes a search bar at the top with a dropdown menu and a "Search" button. Below the search bar, there is a section labeled "Fill these for special search:" with three input fields: "Title:", "Authors:", and "Institutions:". At the bottom of the window, there are two buttons labeled "Previous" and "Next".

Text Query:

Information Retrieval 2021 AM:2278

Search:

covid

Search

Fill these for special search:

Title:

Authors:

Institutions:

Paper 0

Title: Understanding the complexities of SARS-CoV2 infection and its immunology: A road to immune-based therapeutics

Authors: V Kumar

Institutions: ST Lucia

Date: fa24900a319ad309f49a20bbab11ba2c1606801f

Paper 1

Title: AMCI B® 1. ACTUALIZACION DE LA DECLARACION DE CONSENSO EN MEDICINA CRITICA PARA LA ATENCION MULTIDISCIPLINARIA DEL PACIENTE CON SOSPECHA O CONFIRMACION DIAGNOSTICA DE C...

Authors: Jose Luis Accini Mendoza Victor Hugo Nieto Estrada Nel...

Institutions:

Date: 5f4d67f8848441f41afd98668d249787f9ba6cd

Paper 2

Title: Clinical Medicine COVID-19 and Heart: From Clinical Features to Pharmacological Implications

Authors: Vincenzo Russo Roberta Bottino Andreina Carbone Anna...

Institutions: University of Campania "Luigi Vanvite...

Date: a4b2219055cbb2b04db521df1e968cc26cc5ae4f

Paper 3

Title: Characterising COVID-19 as a Viral Clotting Fever: A Mixed Methods Scoping Re- view

Authors: Justin Marley Nisha Marley

Institutions:

Date: 97e8d0151666d29f23ec69745c7f8e1f00a4bd2f

Paper 4

Title: Applications of Artificial Intelligence in Battling Against Covid-19: A Literature Review Journal Pre-proof Applications of Artificial Intelligence in Battling Against Covid-19: A Literature Review Highlights β...

Authors: Mohammad-H Tayarani-N

Institutions: University of Hertfordshire

Date: 2f3aa8aad654ec7b4b5f7ce57b8f4fdb61bda67

Paper 5

Title: Coronavirus Disease 2019 -COVID-19

Authors: Kuldeep Dhama Sharun Khan Ruchi Tiwari Shubhankar ...

Institutions: ICAR-Indian Veterinary Research Insti...

Date: a1197616d3b03b84564639159f999321c601a01e

Paper 6

Title:

Authors:

Institutions:

Date: efd5e752a2da3dddd92249823faa4d31f27f0132

Paper 7

Title:

Authors: Bader M Jarai Zachary Stillman Kartik Bomb April M Klox...

Institutions: University of Delaware University of D...

Date: e813ebdc2d2f7c54ee22dbc9a4abc8f91d659fff

Paper 8

Title: South Africa, 4 WHO Collaborating Centre for Social Determinants of Health and Health in all Policies

Authors: Olayinka O Ogunleye Debashis Basu Debjani Mueller Jac...

Institutions: Lagos State University College of Me...

Date: c6a40d7c446df944b6dcd5d4027804827433fadf

Paper 9

Title: COVID-19: Review of a 21st Century Pandemic from Etiology to Neuro-psychiatric Implications-Commercial License (CC BY-NC 4.0)

Authors: Vicky Yamamoto Joe F Bolanos John Fiallos Susanne E S...

Institutions: UCLA-Cedar-Sinai California Rehabil...

Date: 4f2615adeefdb864647ab4f14d23b06f7e192588

Previous

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Title Only Query:

Information Retrieval 2021 AM:2278

Search:

Search

Fill these for special search:

Title:

Authors:

Institutions:

Paper 0

Title: Coronavirus Disease 2019 -COVID-19

Authors: Kuldeep Dhama Sharun Khan Ruchi Tiwari Shubhankar ...

Institutions: ICAR-Indian Veterinary Research Insti...

Date: a1197616d3b03b84564639159f999321c601a01e

Paper 1

Title: Journal Pre-proofs COVID-19 therapy: what weapons do we bring into battle? COVID-19 therapy: what weapons do we bring into battle?

Authors: Sinara Milica Vitalino De Almeida Jost Cleberson Sa...

Institutions: Universidade de Pernambuco Univer...

Date: 174917bb261d0fad2a55a5416af86074d67d0abd

Paper 2

Title: Journal Pre-proof COVID-19, cytokines, inflammation, and spices: How are they related? COVID-19, Cytokines, Inflammation, and Spices: How are They Related?

Authors: Ajalkumar B Kunnumakkara Varsha Rana Dey Parama Kl...

Institutions: Indian Institute of Technology Guwah...

Date: 8d5d18de9b78459a588e74283a812a6b83d4043

Paper 3

Title: Non-pharmaceutical interventions during the COVID-19 pandemic: A review

Authors: Nicola Perra

Institutions: University of Greenwich

Date: dadadde839e7da34798fad16610ed1821ab5e19e

Paper 4

Title: COVID-19: The Emerging Immunopathological Determinants for Recovery or Death

Authors: Emma Carolien Van De Sandt Mohsan Ullah Goraya Ahm...

Institutions: Qassim University Qassim University

Date: 909237248864f13b2b916a2b432e1293172cc234

Paper 5

Title: Non-pharmaceutical interventions during the COVID-19 pandemic: a rapid review

Authors: Nicola Perra

Institutions: University of Greenwich

Date: 151d01336b745b8dac2292f8f4ee1628843faa63

Paper 6

Title: Applications of Artificial Intelligence in Battling Against Covid-19: A Literature Review Journal Pre-proof Applications of Artificial Intelligence in Battling Against Covid-19: A Literature Review Highlights β...

Authors: Mohammad-H Tayarani-N

Institutions: University of Hertfordshire

Date: 2f3aa8aad654ec7b4b5f7ce57b8f4fdb61bda67

Paper 7

Title: COVID-19 Vaccines: The Status and Perspectives in Delivery Points of View

Authors: Young Jee Melissa N Chung Young Jik Thone Kwon Jee Y...

Institutions:

Date: dd1fae0608a68a8b655e1e1ee2e73653f804808

Paper 8

Title: Microarray patches enable the development of skin-targeted vaccines against COVID-19

Authors: Emrullah Korkmaz Stephen C Balmert Tina L Sumpter Car...

Institutions: University of Pittsburgh School of Me...

Date: 42d1e2777da255cb8534406b0033de708754dc7

Paper 9

Title: Reviews Blood Biomarkers for Detection of Brain Injury in COVID-19 Patients

Authors: Steven T Dekosky Patrick M Kochanek Alex B Valadka Ro...

Institutions: University of Florida College of Medici...

Date: 58e03a6d67d0390a17f6e3781af690677cf376bf

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History:

Information Retrieval 2021 AM:2278

Search:

coronavirus

coronavirus

Search

Fill these for special search:

Title:

Authors:

Institutions:

Paper 0

Title: THE MOLECULAR BIOLOGY OF CORONAVIRUSES

Authors: Paul S Masters

Institutions: New York State Department of Health...

Date:

f085aa777d230139f3ae371f7d28ec3070a6c254

Paper 1

Title: Coronavirus Pathogenesis

Authors: Susan R Weiss Julian L Leibowitz

Institutions:

Date:

6be4fe1605ea1a6f558204da253019a399be3178

Paper 2

Title: Coronavirus Disease 2019 -COVID-19

Authors: Kuldeep Dhama Sharun Khan Ruchi Tiwari Shubhankar ...

Institutions: ICAR-Indian Veterinary Research Insti...

Date:

a1197616d3b03b84564639159f99321c601a01e

Paper 3

Title: 295(37) 12910-12934 12911 JBC REVIEWS: The molecular virology of coronaviruses

Authors: Ella Hartenian Divya Nandakumar Azra Lari Michael Ly J...

Institutions:

Date:

35c21cf2faa65dafc74f5d620bb783cbeae825da

Paper 4

Title: The molecular virology of coronaviruses

Authors: Ella Hartenian Divya Nandakumar Azra Lari Michael Ly J...

Institutions:

Date:

84c1aff727960609182008fe0ed5a1724f8cb08c

Paper 5

Title: Viruses with Single-Stranded, Positive-Sense RNA Genomes 14 Enterovirus B110 (chimpanzee) Simian enterovirus SA5

Authors: Enterovirus C

Institutions:

Date:

ceaeab45613d2061b131e2c7d96ba7a370c1cbf

Paper 6

Title: Molecular Sciences The SARS-Coronavirus Infection Cycle: A Survey of Viral Membrane Proteins, Their Functional Interactions and Pathogenesis

Authors: Nicholas A Wong Milton H Saier Masoud Jelokhani-Niaraki

Institutions:

Date:

e684a3b7d9494a8abbabf58e10f349282adae05

Paper 7

Title: Journal Pre-proofs COVID-19 therapy: what weapons do we bring into battle? COVID-19 therapy: what weapons do we bring into battle?

Authors: Sinara Mílica Vitalino De Almeida JosF Cleberson Sa...

Institutions: Universidade de Pernambuco Univer...

Date:

174917bb261d0fad2a55a5416af86074d67d0abd

Paper 8

Title: Molecular Sciences Innate Receptor Activation Patterns Involving TLR and NLR Synergisms in COVID-19, ALI/ARDS and Sepsis Cytokine Storms: A Review and Model Making Novel Predictions and Thera...

Authors: Robert Root-Bernstein James L Stafford

Institutions: Michigan State University Michigan St...

Date:

7b8ee1a37ea899d35a31301388c4a31ec82e1a2

Paper 9

Title: Targeting Crucial Host Factors of SARS-CoV-2

Authors: Anil Mathew Tharappel Subodh Kumar Samrat Zhong Li H...

Institutions:

Date:

338a4eb740f8529e6339c1673ec21dea15bbc47c

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