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Esports as Accelerator for Social Inclusive Education

LESSON

THE SOLR SEARCH HUNT

AUTHOR

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CODEARTS SOLUTIONS

THE SOLR SEARCH HUNT

The Solr Search Hunt is a data treasure hunt in which learners use indexing, filters, facets and query syntax to locate clues hidden within a prepared dataset. The activity turns search-engine concepts into an exploratory problem-solving task.

Subject and level

VET web, data and systems learners who are familiar with structured data and want practical experience with Apache Solr search and indexing concepts.

Connection to curriculum

The design supports information retrieval, indexing, query construction, filtering, data analysis and performance awareness. It demonstrates how search differs from direct database lookup and how schema choices influence results.

Didactic and pedagogic considerations

Progressive clues create an authentic reason to refine queries. Students receive immediate evidence when a filter is too broad or too narrow, encouraging experimentation with facets, fields and query operators while maintaining a clear goal.

Time estimate

2 hours

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Group size

15-20 students

Overall introduction to exercise

Teams investigate a prepared Solr core containing thousands of fictional product and event records. Each correct query reveals a clue needed to formulate the next one, leading to a final solution that cannot be reached through a single broad search.

The exercise combines technical query skills with analytical reasoning. Learners document their search path so that efficiency, reproducibility and explanation are valued alongside finding the correct answer.

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Exercise as presented to the students

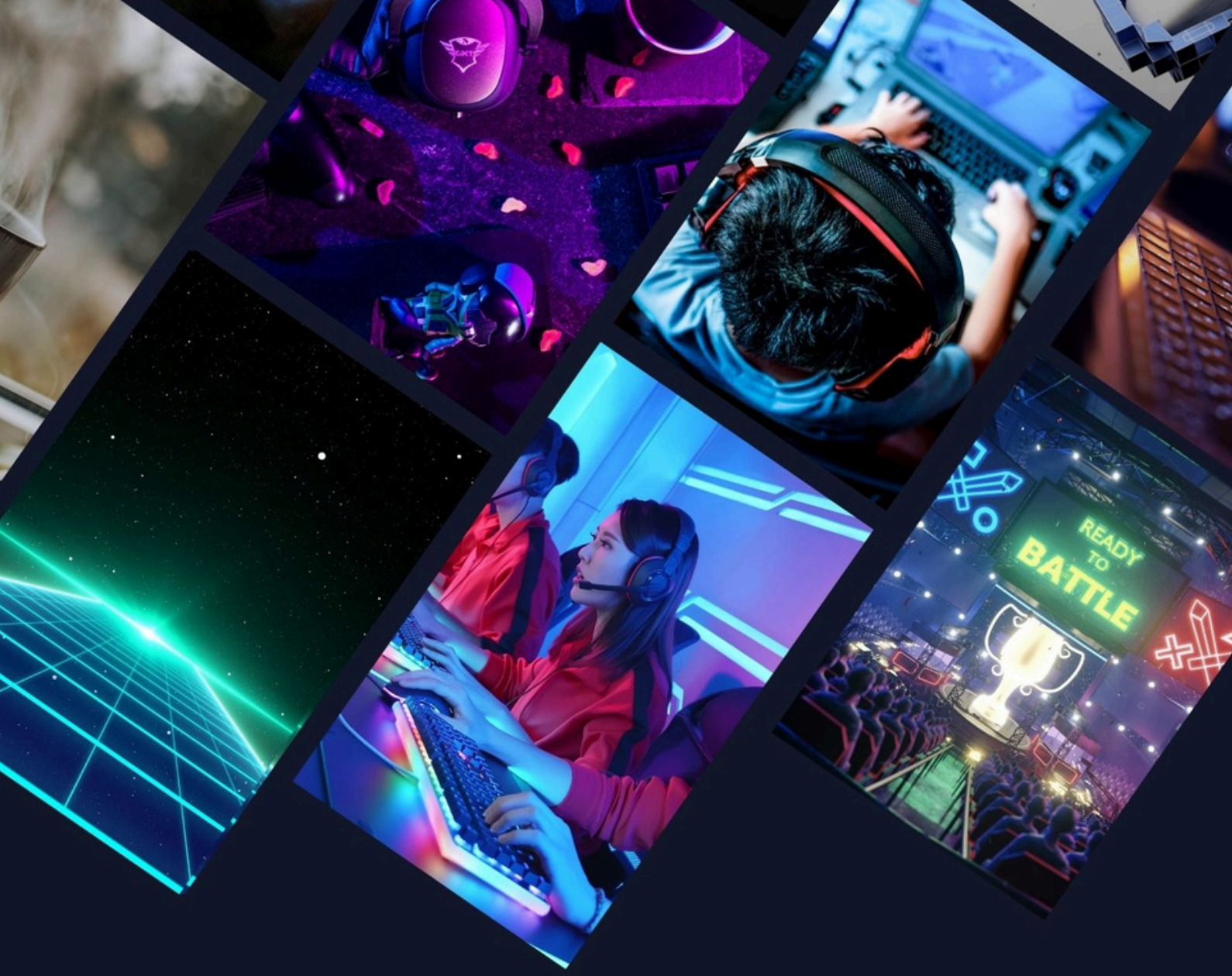
The teacher introduced a fictional investigation involving a lost product record hidden somewhere inside a large training dataset. Teams opened the Solr Admin interface and were shown the available fields, but the final record identifier was withheld. A first simple query confirmed that every group could access the same core.

Clue one required filtering by category and date range. The returned record contained a keyword that became part of clue two, where students added a second field condition and experimented with sorting. Later clues introduced facets so that teams could reason about the distribution of results before narrowing them further.

Midway through the hunt, the teacher added a second small index and asked teams to decide which collection should be searched for a new clue. Some groups used the interface only, while others created equivalent cURL requests to repeat queries quickly and keep an exact record of the parameters used.

Every team maintained a query log showing the query, number of results and why the next refinement was chosen. If a search produced zero results, students were expected to diagnose whether the problem was syntax, field choice or an overly restrictive filter rather than simply asking for the answer.

The final clue revealed the target record and teams presented their shortest reproducible search path. The debrief connected their discoveries to indexing, field design and relevance in real search applications. Students experienced Solr as a controllable information-retrieval system rather than an abstract server configuration topic.



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