

Przekształcenia schematów XML

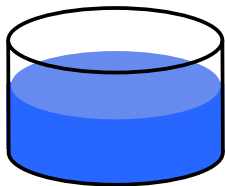
Shun'ichi Amano Claire David Leonid Libkin

(University of Edinburgh)

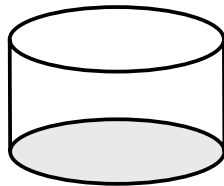
Filip Murlak

(Jeszcze wczoraj U. Edinburgh, a od dziś U. Warszawski)

Wymiana danych

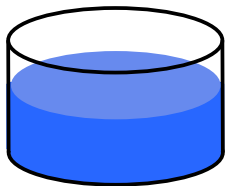


źródłowa baza danych

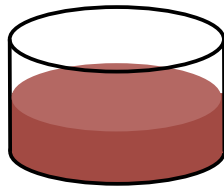


docelowa baza danych

Wymiana danych

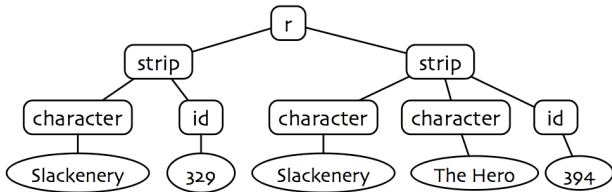


źródłowa baza danych

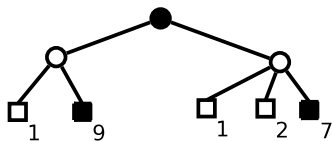
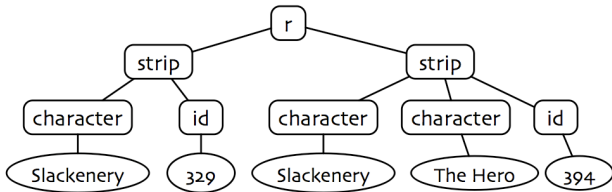


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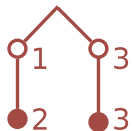
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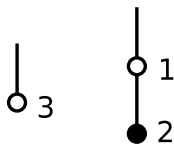
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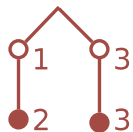
Własności drzew: wzorce



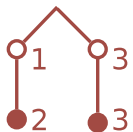
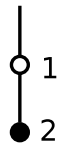
zawiera wzorce



Własności drzew: wzorce

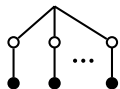


zawiera wzorce

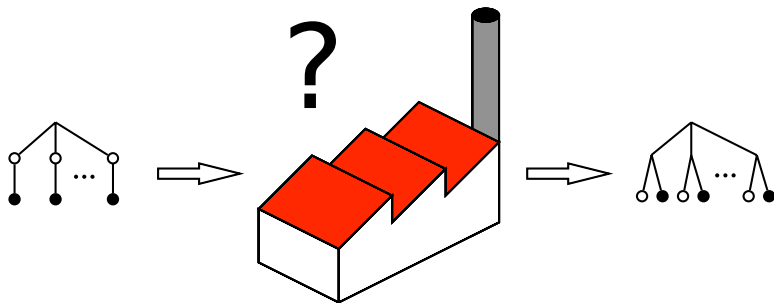


{3}

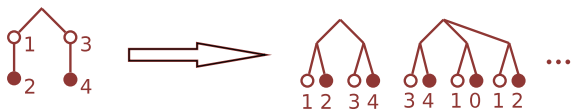
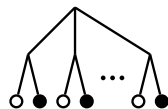
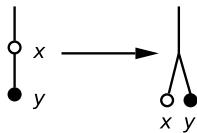
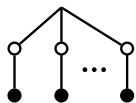
Przekształcenia baz danych



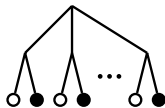
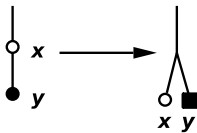
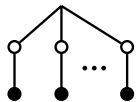
Przekształcenia baz danych



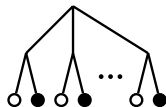
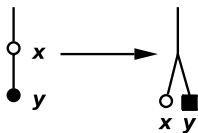
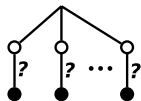
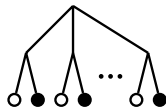
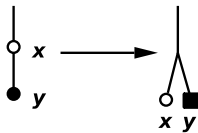
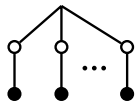
Zależności



Spójność



Spójność

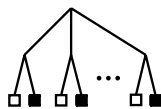
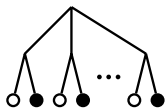
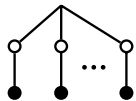


Które drzewo wybrać?

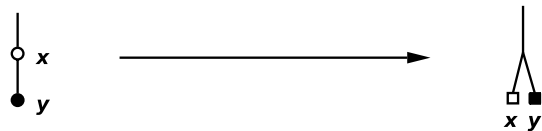
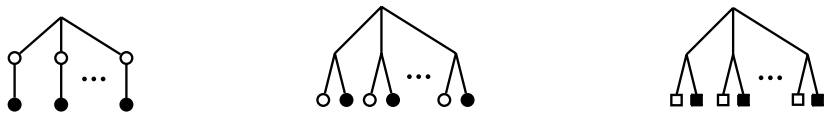


- ▶ Odpowiedzi **pewne**: prawdziwe w każdym drzewie docelowym.
- ▶ Drzewo **uniwersalne**: zawiera dokładnie te wzorce, które są zawarte w każdym drzewie docelowym.
- ▶ Drzewo uniwersalne istnieje i można je szybko skonstruować.

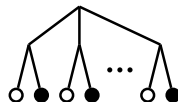
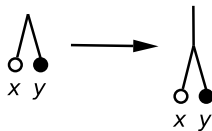
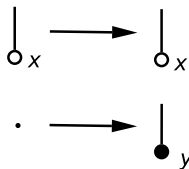
Złożenie



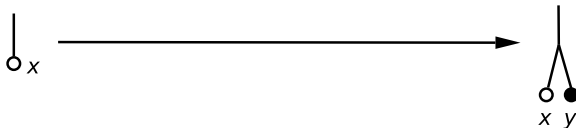
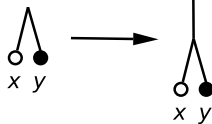
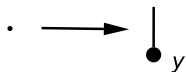
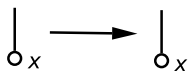
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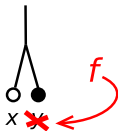
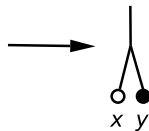
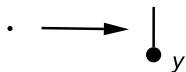
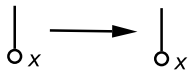
Złożenie: kłopoty z nulami



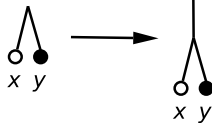
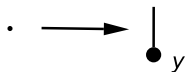
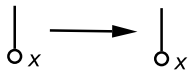
Złożenie: kłopoty z nulami



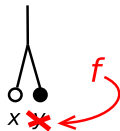
Złożenie: kłopoty z nulami



Złożenie: kłopoty z nulami



$\exists f \forall x$



Podsumowanie

Nasz mechanizm wymiany danych XML gwarantuje

- ▶ semantykę pewnych odpowiedzi,
- ▶ szybkie konstruowanie drzew docelowych,
- ▶ szybkie sprawdzanie spójności,
- ▶ zamknięcie na złożenia.

Co dalej?

- ▶ A co jeśli dopuścimy porównania wartości?
- ▶ A jeśli wprowadzimy porządek na dzieciach?
- ▶ A gdyby nasze zapytania zwracały drzewa, a nie krotki?
- ▶ A może dodajmy możliwość grupowania?
- ▶ A jeszcze ...