

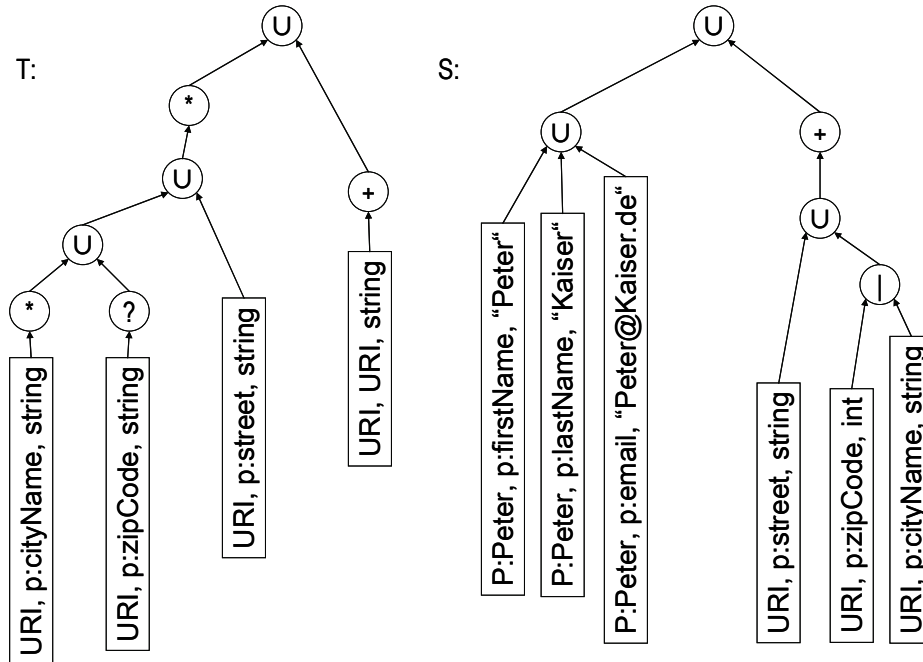
Exercises for the book

Semantic Web Databases

by Sven Groppe

Chapter 11 – Embedded Languages

1. Determine a homomorphism from the type S to the type T for proving that S is a subtype of T:



2. We assume that the input data of the following SPARQL query conforms to type T in Exercise 1. Is the following SPARQL query maybe satisfiable? If yes, then determine its query result type.

```

SELECT ?s ?p
WHERE {
  { ?s ?p "Heinz". }
  UNION
  { ?s ?p "Alfred". }
  ?s p:zipCode ?zipCode.
  ?s p:lastName "Müller".
}

```