

Exercise – 9
XML and Semantic Web Technologies – SoSe 2012
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Q1. Consider the attached xml document (flights.xml). Write the XQuery expression for solving the following problems. Your results should be well-formed XML.

- Give the list of the direct flights on the date of 2009-12-24 which have "North Pole" (airport name) as the source airport.
- Retrieve the list of the busiest airports on the date of 2009-12-24 (based on the number of departures and arrivals).
- Identify all the flight destinations of Passenger "Santa Claus".
- Consider the case of combined flights (two or more). As an example, flying from London to Zurich on the date of 2008-12-24 might mean taking two separate flights: London-Amsterdam and Amsterdam Zurich, both on the same date. Retrieve all flight possibilities from "North pole" to "South pole" on the date of 2009-12-24 with one or two intermediate stops. Note that the schema was enhanced with departure and arrival times.

Q2. Answer the following questions.

- Given is the following XQuery expression:

```
let $a := <a/> let $b := <b>{$a}</b> return $b/a is $a
```

Is the result true, false, or an error? Explain the result.

- As a comparison, what is the result of the following expression?

```
let $a := <a/> let $b := $a return $b is $a
```