EXERCISES

11.3 From the XML document in Fig. 11.15, answer the following questions.

a) What is the XPath expression that selects all transaction elements with attribute

date having values between 06/01/2000 and 07/30/2000, inclusive?

b) What is the XPath expression that selects all transaction elements that have an

amount of U.S. dollars (USD) with a value greater than 200?

c) What is the XPath expression that selects all transaction elements from account

100392?

d) What is the XPath expression that calculates the total value of transactions in account

203921?

e) What is the XPath expression to determine the average amount transferred to account

203921?

f) What is the XPath expression that selects all transactions dated 09/03/2000?

g) What is the XPath expression that selects all amount elements with a currency of

NTD whose transaction date is after 09/01/2000?

h) What is the XPath expression to get all transaction elements from part (a) with account

value 100392?

<?xml version = "1.0"?>

<transactions>

<transaction date = "05/22/2000" id = "0122">

<from account = "100392"/>

<to account = "203921"/>

<amount currency = "USD">15</amount>

</transaction>

<transaction date = "06/01/2000" id = "0129">

<from account = "203921"/>

<to account = "877521"/>

<amount currency = "USD">4800</amount>

</transaction>

<transaction date = "06/01/2000" id = "0130">

<from account = "100392"/>

<to account = "992031"/>

<amount currency = "YEN">7000</amount>

</transaction>

<transaction date = "06/10/2000" id = "0152">

<from account = "992031"/>

<to account = "100392"/>

<amount currency = "USD">402.53</amount>

</transaction>

<transaction date = "06/22/2000" id = "0188">

<from account = "100392"/>

<to account = "203921"/>

<amount currency = "USD">10000</amount>

</transaction>

<transaction date = "07/12/2000" id = "0200">

<from account = "100392"/>

<to account = "039211"/>

<amount currency = "NTD">3000</amount>

</transaction>

<transaction date = "07/26/2000" id = "0211">

<from account = "203921"/>

<to account = "100392"/>

<amount currency = "USD">400</amount>

</transaction>

<transaction date = "08/05/2000" id = "0225">

<from account = "039211"/>

<to account = "203921"/>

<amount currency = "USD">150</amount>

</transaction>

<transaction date = "09/03/2000" id = "0293">

<from account = "100392"/>

<to account = "039211"/>

<amount currency = "NTD">200000</amount>

</transaction>

</transactions>

Fig. 11.15 Account transaction XML document

Ques 2. From the XPath expressions and results in Fig. 11.16, generate the XML document.

Expression Result

count( //\* ) 7

count( //@\* ) 6

count( //argument ) 2

count( //description ) 1

count( //class ) 1

count( //function ) 2

count( //return ) 1

count( //text() ) 1

count( //processing-instruction() ) 0

count( //function/return ) 1

count( //function/argument ) 2

count( //class/\* ) 3

count( //description/\* ) 0

//class/description { "This class handles

input" }

//@name { "input", "text",

"number" }

//@type { "string", "int",

"string" }

//return/@type { "int" }

//argument/@type { "string", "string" }

boolean( //function/@name ) true

boolean( //class/@name ) true

Fig. 11.16 XPath expressions.