

EXPERIMENT NO. 7

Problem Statement: Create an XML document that contains 10 users information. Write a Java program which takes User Id as input.

Program:

users.xml

```
<?xml version="1.0" encoding="UTF-8"?>
<users>
  <user>
    <id>1</id>
    <name>Alice</name>
    <age>25</age>
    <email>alice@example.com</email>
  </user>
  <user>
    <id>2</id>
    <name>Bob</name>
    <age>32</age>
    <email>bob@example.com</email>
  </user>
  <user>
    <id>3</id>
    <name>Charlie</name>
    <age>19</age>
    <email>charlie@example.com</email>
  </user>
  <user>
    <id>4</id>
    <name>David</name>
    <age>41</age>
    <email>david@example.com</email>
  </user>
  <user>
    <id>5</id>
    <name>Eve</name>
    <age>28</age>
    <email>eve@example.com</email>
  </user>
  <user>
    <id>6</id>
    <name>Frank</name>
    <age>36</age>
    <email>frank@example.com</email>
  </user>
  <user>
```

```
<id>7</id>
<name>Grace</name>
<age>22</age>
<email>grace@example.com</email>
</user>
<user>
  <id>8</id>
  <name>Harry</name>
  <age>29</age>
  <email>harry@example.com</email>
</user>
<user>
  <id>9</id>
  <name>Isabelle</name>
  <age>24</age>
  <email>isabelle@example.com</email>
</user>
<user>
  <id>10</id>
  <name>Jack</name>
  <age>31</age>
  <email>jack@example.com</email>
</user>
</users>
```

UserLookup.java

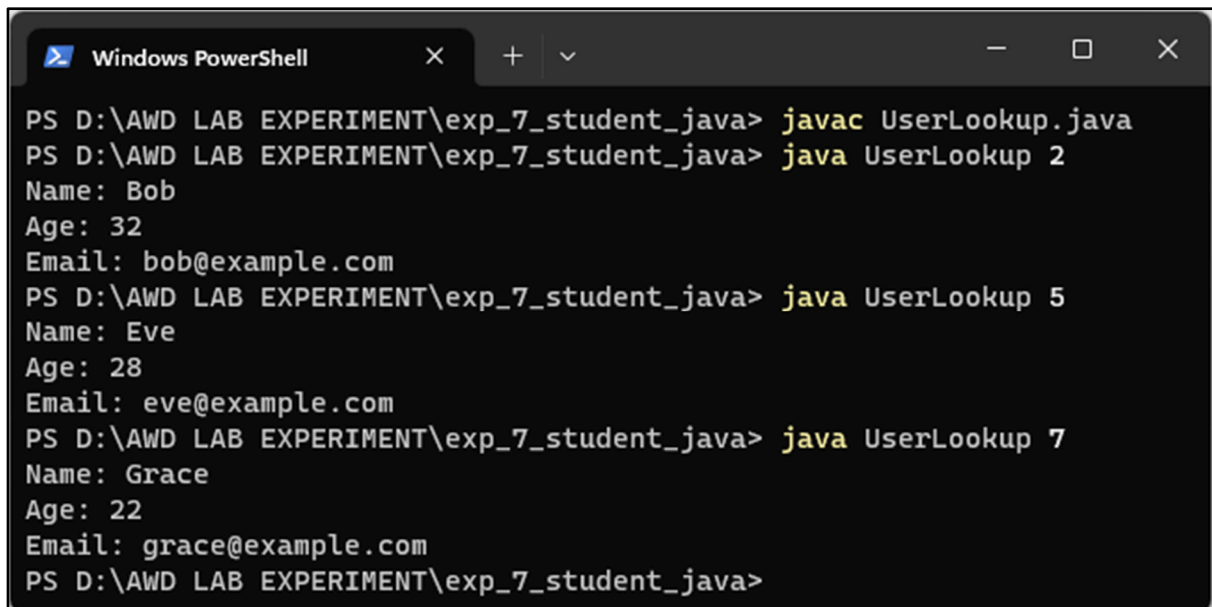
```
import javax.xml.parsers.*;
import org.w3c.dom.*;

public class UserLookup {
    public static void main(String[] args) throws Exception {
        // Get the User ID from the command line arguments
        int userId = Integer.parseInt(args[0]);

        // Parse the XML document
        DocumentBuilderFactory dbf = DocumentBuilderFactory.newInstance();
        DocumentBuilder db = dbf.newDocumentBuilder();
        Document doc = db.parse("users.xml");

        // Find the User element with the corresponding ID
        NodeList users = doc.getElementsByTagName("user");
        for (int i = 0; i < users.getLength(); i++) {
            Element user = (Element) users.item(i);
            int id = Integer.parseInt(user.getElementsByTagName("id").item(0).getTextContent());
            if (id == userId) {
                // Print the User's information
            }
        }
    }
}
```

```
String name = user.getElementsByTagName("name").item(0).getTextContent();
int age =
Integer.parseInt(user.getElementsByTagName("age").item(0).getTextContent());
String email = user.getElementsByTagName("email").item(0).getTextContent();
System.out.println("Name: " + name);
System.out.println("Age: " + age);
System.out.println("Email: " + email);
break;
}
}
}
}
```

Output:

```
Windows PowerShell
PS D:\AWD LAB EXPERIMENT\exp_7_student_java> javac UserLookup.java
PS D:\AWD LAB EXPERIMENT\exp_7_student_java> java UserLookup 2
Name: Bob
Age: 32
Email: bob@example.com
PS D:\AWD LAB EXPERIMENT\exp_7_student_java> java UserLookup 5
Name: Eve
Age: 28
Email: eve@example.com
PS D:\AWD LAB EXPERIMENT\exp_7_student_java> java UserLookup 7
Name: Grace
Age: 22
Email: grace@example.com
PS D:\AWD LAB EXPERIMENT\exp_7_student_java>
```