XML COURSEWORK

F28DM CW

Group Members:

Ayushi MadhuKumar Amin (H00331154)

Harini Balamurugan (H00334975)

Program: Bsc. Computer Science (Year – 2)

Campus: Heriot-Watt University Dubai

Contributions

* The XML file and XML Schema were done by the both of us together.
* There are six XPath expressions. Each team member contributed three queries.

Overview of the XML file

***hwmotors*** is the root tag of the group01.xml file. It has 10 child tags which are called ***booking***. Each ***booking*** tag has an attribute called ***bookingID*** and 2 child tags called ***vehicle*** and ***person***.

Each ***vehicle*** tag has an attribute called ***plateNumber*** and there are 8 elements nested within it. These elements are:

* ***manufactureName:*** String
* ***modelName:*** String
* ***hireDate:*** It has 2 nested elements ***startDate*** and ***returnDate*** which are of type Date.
* ***location:*** It has 2 nested elements ***startLocation*** and ***endLocation*** which are of type String.
* ***hireCategory:*** String
* ***gearType:*** String
* ***noOfSeats:*** Integer
* ***fixedHirePrice:*** Decimal

Each ***person*** tag has an attribute called ***drivingLicenseNumber.*** The elements nested within the ***person*** tag are:

* ***name:*** It has 2 nested elements ***firstName*** and ***lastName*** which are of type String.
* ***dob:*** Date
* ***homeAddress:*** String
* ***phoneNumber:*** String. It is a repeated element. The minimum occurrence is 1 and maximum occurrence is 3.
* ***email:*** String. It is optional.

XPath Expression

**Ayushi’s Queries**

1. //booking/vehicle[fixedHirePrice<200]/modelName/text()

**RESULT -** Pradoi20Touareg

This expression is used for getting the model names (***modelName***) of the vehicles where the fixed hire price (***fixedHirePrice***) is less than 200.

1. //booking/person[@drivingLicenseNumber="2335426"]/phoneNumber/text()

**RESULT -** +44 4044 898055+44 3597 372010+44 4044 898055

This expression is used for getting the phone number (***phoneNumber***) of the person whose driving license number (***drivingLicenseNumber***) is ***“2335426”***.

1. /hwmotors/booking/vehicle[location/startLocation = "London"]/hireCategory/text()

**RESULT -** Family carSports car

This expression is used for getting the category (***hireCategory***) of the vehicles where the ***startLocation*** is ***“London”***.

**Harini’s Queries**

1. //booking[vehicle[manufactureName="Audi"]]/person/@drivingLicenseNumber

**RESULT -** drivingLicenseNumber="4649128"

This expression is used for getting the driving license number (***drivingLicenseNumber***) of the person who rented the vehicle whose manufacture name (***manufactureName***) is ***“Audi”***.

1. count(/hwmotors/booking/vehicle[noOfSeats=5])

**RESULT -** 5

This expression is used for getting the number of vehicles where the number of seats (***noOfSeats***) is 5.

1. /hwmotors/booking[vehicle/hireCategory="Family car"]/vehicle/modelName

**RESULT –** <modelName>Prado</modelName><modelName>Q5</modelName><modelName>Touareg</modelName>

This expression is used for getting the model name (***modelName)*** of the vehicles whose category (***hireCategory***) is ***“Family Car”.***