# Members of Group 9

F28DM\_2020-2021 Database Management Systems – Coursework 2 Report

Group 9 – David Capper, Jakub dymarkowski & raphael Stewart

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# Contributions made by each member.

Each member of the group ensured that the work was divided evenly amongst each other, with Raphael Stewart laying the outline of the xml and xml schema alongside David Capper and Jakub Dymarkowski. Each work took a specific set of information detailed in the specification to be implemented and each member implemented as such. The Schema was further improved upon by David and Jakub, whilst Raphael worked on implementing data for the xml file. Finally, a github repository was made by David, under the username MadBabyBrain for our project.

*Github -* [*https://github.com/MadBabyBrain/f28dm\_2020-2021*](https://github.com/MadBabyBrain/f28dm_2020-2021)

*Gitlab -* [*https://gitlab-student.macs.hw.ac.uk/dc111/f28dm-cw2*](https://gitlab-student.macs.hw.ac.uk/dc111/f28dm-cw2)

# Overview of the data implemented and stored in the XML file.

The XML file is made up of a company element which encompasses all other elements. A vehicle details element was created to store the date at the start of the hire and the date of the end of the hire, the location of the start and the end of the hire, the hire category, and the type of the vehicle being hired.

A customer details element under the company element was created to store their driving license details, name, date of birth, home address, phone numbers such as the home, mobile and office and email address.

Then a fixed hire price per day element which stores the prices for each day was created.

# XPath queries used.

## Xpath1: (query by Raphael Stewart)

(: Query to find all cars hired for family use under the name of Winston :)

//company/obj[./v\_details/hire\_cat[.="family"] and /cust\_details/name/first[.="Winston"]]/@ord\_id

Attribute='ord\_id=000a'

Attribute='ord\_id=0014'

## Xpath2: (query by Raphael Stewart)

(: Query to find all the start location places made in Edinburgh but not end in Edinburgh :)

//company/obj[./v\_details/location\_hire/start[.="Edinburgh" and not(../end="Edinburgh")]]/cust\_details/@cus\_id

Attribute='cus\_id=003'

Attribute='cus\_id=003'

## Xpath3: (query by David Capper)

(: Query to find all specific vehicles that have been taken out by a certain customer :)

(: veh\_id and cus\_id are hex values :)

//company/obj[v\_details[@veh\_id="001"] and ./cust\_details[@cus\_id="001"]]/@ord\_id

Attribute='ord\_id=0001'

Attribute='ord\_id=000b'

## Xpath4: (query by David Capper)

(: this returns all the prices that are below a set amount :)

//company/obj[./hire\_price/price[@amount < "80.00"]]

//company/obj/cust\_details[../hire\_price/price[number(translate(@amount,'.','.')) < 80.00]]/@cus\_id

Attribute='cus\_id=001'

Attribute='cus\_id=003'

Attribute='cus\_id=001'

Attribute='cus\_id=003'

Attribute='cus\_id=005'

## Xpath5: (query by Jakub Dymarkowski)

(: return all email addresses from orders where the car type is luxury or sports :)

//company/obj/cust\_details/email\_address[../../v\_details/hire\_cat = "luxury" or ../../v\_details/hire\_cat = "sports"]

Element='<email\_address>Jmnearman@hotmail.com</email\_address>'

Element='<email\_address>winstonCH@hotmail.com</email\_address>'

Element='<email\_address>Fritzralph123@gmail.com</email\_address>'

Element='<email\_address>monikasta@hotmail.com</email\_address>'

Element='<email\_address>Jmnearman@hotmail.com</email\_address>'

Element='<email\_address>winstonCH@hotmail.com</email\_address>'

Element='<email\_address>mjausten@hotmail.com</email\_address>'

Element='<email\_address>Jmnearman@hotmail.com</email\_address>'

## Xpath6: (query by Jakub Dymarkowski)

(: Query to find all the customer ids who are over the age of 21 :)

//company/obj/cust\_details[./dob[number(translate(.,'-','')) < 20000101]]/@cus\_id

Attribute='cus\_id=001'

Attribute='cus\_id=002'

Attribute='cus\_id=005'

Attribute='cus\_id=006'

Attribute='cus\_id=007'

Attribute='cus\_id=009'

Attribute='cus\_id=005'

Attribute='cus\_id=001'

Attribute='cus\_id=002'

Attribute='cus\_id=005'

Attribute='cus\_id=001'

Attribute='cus\_id=002'

Attribute='cus\_id=005'