## Software Design Problem Specification for Deliverable 2 Part 2: the Social Ads System Project

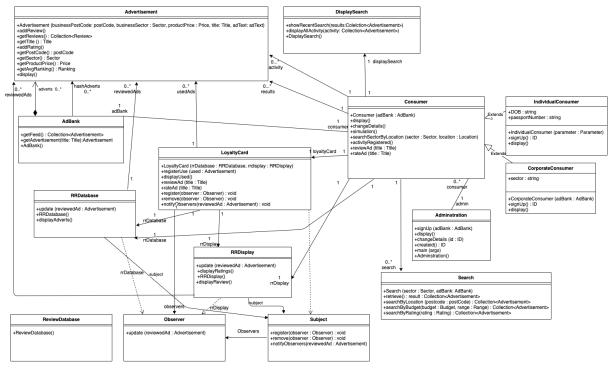
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## (Task 3.1) Extended class diagram

Inserted the individual and corporate classes with their own methods that are now not needed into the Consumer class so they've been deleted from the former class.

Created the subject and observer classes and their own connections with other classes to pass subject/observers/rrDatabase/rrDisplay needed for the update method.

Created ReviewDatabase as a singleton but couldn't fully implement it isn't precisely described in the assignment brief. (Figure 1)



Class Diagram(Figure 1)

## (Task 3.3) Produce Output Trace

Type 1 for individual consumer or 2 for corporate consumer:  1 **********************************
Input Details for an IndividualConsumer
Id Number: 32609 John 07384983844 B42 2SU JohnK@bcu.ac.uk 21/05/1980 UI302RNM
Results of Search for Double Glazing B42 2SU
**************************************
Johnsons:Bay Window Gray 2x3m Find out more at: B42 2SU For just: £350.6 ************************************
Results of Search for Books DY1 4YP
Waterstones:By the River Bank Hardback:Peterson Find out more at: DY1 4YP For just: £5.2
Results of Search for Books DY1 4VP
********

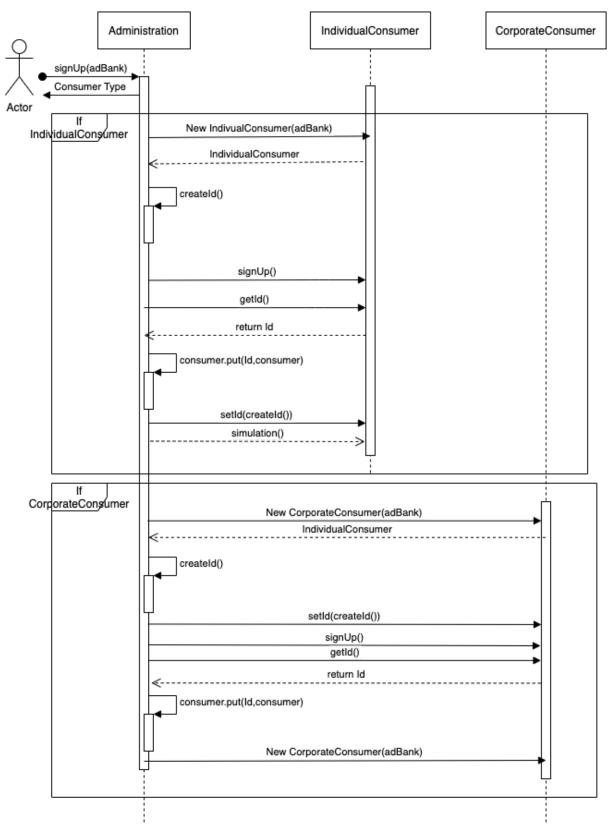
Hardback:Peterson Find out more at: DY1 4YP
Find out more at: DY1 4YP
For just: £5.2
******
All Search Results
**************************************
******
Smiths:Bay Window
white 4x3
Find out more at: B42 2SU
For just: £400.2
*******
Johnsons:Bay Window
Gray 2x3m Find out more at: B42 2SU
For just: £350.6
***************************************
Waterstones:By the River Bank
Hardback:Peterson
Find out more at: DY1 4YP
For just: £5.2
******
******
Register a Used Advertisement on the Loyalty Card
*******
********
Smiths:Bay Window Registered as Used Advertisement
******
Register a Used Advertisement on the Loyalty Card
******
Johnsons:Bay Window Registered as Used Advertisement
******
******
Register a Used Advertisement on the Loyalty Card
******

********
Register a Used Advertisement on the Loyalty Card  ***********************************
**************************************
B&Q:Hammer Small Find out more at: B42 2SU For just: £150.2
Smiths:Bay Window white 4x3 Find out more at: B42 2SU For just: £400.2
Screwfix:Screw Driver Large Find out more at: DY1 4YP For just: £150.2
Johnsons:Bay Window Gray 2x3m Find out more at: B42 2SU For just: £350.6 ************************************
**************************************
**************************************
Please input a Review for Smiths:Bay Window good
**************************************

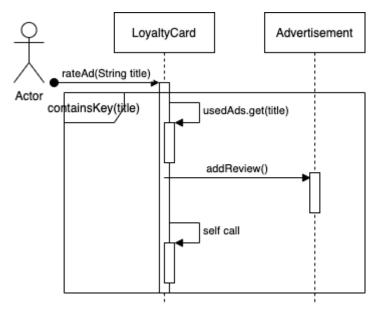
Add a Review
Please input a Review for B&Q:Hammer not good
*******
Display Reviews
*******
Reviews for Smiths:Bay Window good
Reviews for B&Q:Hammer not good
********
******
The consumer rates an advertisement
Add a Rating
Please input a Ranking 0 - 10 for Smiths:Bay Window 8
******
The consumer rates an advertisement
Add a Rating
Please input a Ranking 0 - 10 for Screwfix:Screw Driver 4
********
Display Ratings
******
Average Rating for Smiths:Bay Window Average Rating: 8.0
Average Rating for B&Q:Hammer Average Rating: NaN
Average Rating for Screwfix:Screw Driver

Average Rating: 4.0
********
Display Reviewed and Rated Advertisements
Information for Smiths:Bay Window Smiths:Bay Window white 4x3 Find out more at: B42 2SU For just: £400.2
Review: good ******
Average Rating: 8.0
Information for B&Q:Hammer B&Q:Hammer Small Find out more at: B42 2SU For just: £150.2
Review: not good
Average Rating: NaN
Information for Screwfix:Screw Driver Screwfix:Screw Driver Large Find out more at: DY1 4YP For just: £150.2
Average Rating: 4.0

(Task 3.4)
Sequence diagrams (Figure 2) (Figure 3)



Sequence Diagram for signUp method(Figure 2)



Sequence Diagram for rateAd method(Figure 3)