***MAS DSE 201 Homework: Sales Cube***

***Milestone I [due Jan 28 at midnight]***

*Consider a database that captures customers with a name and state (of residence); states with a name; products that have a list price, a name and belong to a category; categories have names and descriptions; sales of a product to a customer capturing quantity and price paid (may be discounted on a case-by-case basis).*

*Produce an SQL schema that captures the above information.*

**Sales Cube - Entity-Relationship Model**

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**Sales Cube - SQL schema**

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***MAS DSE 201 Homework: 201Cats***

***Milestone I [due Jan 28 at midnight]***

*The 201Cats web application provides sophisticated cat video viewing to its users. Each user has a user name and logs in the 201Cats using his Facebook log-in. Consequently, the company regularly obtains information of which ones of the 201Cats users are Facebook followers of other 201Cats users.*

*When a user logs in, the web application suggests to her 10 cat videos – more on this below. The user may*

* *Watch one of the suggested videos*
* *Like a suggested video; may like a video even without watching it. A user may like a video just once. Clicking many times on the like does not result on “liking many times”.*

*The 201Cats database captures the following information, with minimum redundancy:*

* *The user’s name and Facebook login – password not needed.*
* *The user’s “like” activity: store which video were liked and when.*
* *The user’s “watch” activity: store which videos were watched and when.*
* *The times the user logged in and the videos that were suggested to the user to watch when she logged in.*
* *Which 201Cats users are friends of each user. You are allowed some redundancy here: It is OK if the database captures both that “X is friend of Y” and “Y is friend of X”, despite the fact that this is redundant since Facebook friendships are symmetric.*

*Produce an SQL schema that captures the above information. Optionally (and not graded), submit the corresponding E/R design – if you designed the schema using the E/R technique (something we recommend highly).*

**201Cats - Entity-Relationship Model**

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**201Cats - SQL schema**

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