

RIT ISTE230	Introduction to Database & Data Modeling Homework #2	Fall 2022 (2221)
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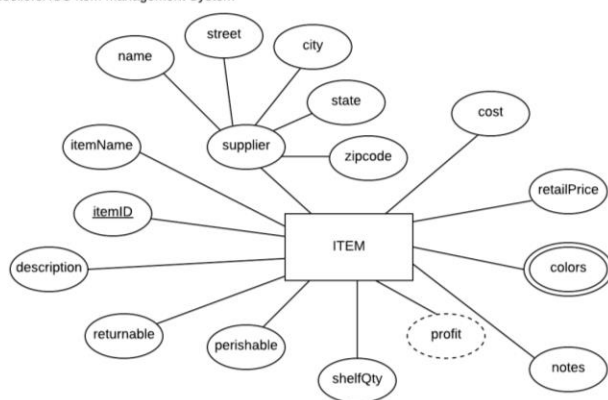
Name: Please put Last name (Lastname, Firstname) __eng, chris_____

Due: Thursday September 8, 2022 at 11:59pm **Assignment Dropbox HW02**

Submit this document to the Homework #2 assignment folder, edited to include your answers AND submit the script file, and TEE file created for Part 3. Attach your script as HW02_Lastname.sql The TEE file named HW02_Lastname.txt

Part 1

ResellersRUS Item Management System



For the table below, please classify each attribute specified based on the E-R diagram above. Please place the best answer for each column that best describes the attribute.

Attribute	Composite or Simple	Single-valued or Multi-valued	Stored or Derived	Identifier ? (Yes or no)
profit	simple	Single-valued	derived	no
street	simple	Single-valued	derived	no
itemID	simple	Single-valued	stored	yes
supplier	composite	Multi-valued	derived	no
colors	simple	Single-valued	stored	no

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Part 2 Question is about

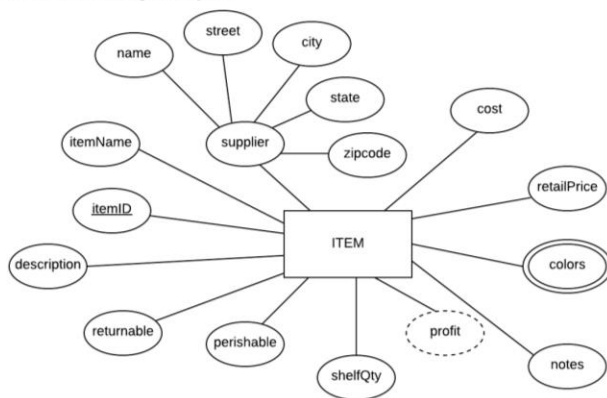
Relational Schema

Please learn that term. I will explain the

Transpose the E-R diagram below into a **relational schema**. You do not need to normalize the relation.


NOTE: The transposed ITEM relation includes a 'colors' attribute, therefore it would not pass the 1NF (the criteria for a relation). Although the ITEM relation is not in 1NF, there is an approach that we will learn next week.

ResellersRUS Item Management System



Your Answer (relational schema):

ITEM(itemID, itemName, name, street, city, state, zipcode, cost, retailPrice, notes, profit, shelfQty, perishable, description);

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Part 3 Before you start do some research https://www.w3schools.com/sql/sql_datatypes.asp

Create a script.

See Appendix A (page4) for suggested coding standards, when to use caps, when to use camel case, etc
Every Company will have a different set of coding standards.


Create a script. Your script will include the statements that will create a database called “HW2” that includes a table for ITEM(Previous page), Use the relation above in Part 2 and the specifications in the table below. Use LOGICAL AND CORRECT DATA TYPES for this part (CHAR, VARCHAR, INT, DECIMAL, MEDIUMTEXT, TINYINT and DATE and others). Can you think of other valid data types that are appropriate.

Create a TEE file

After you create your script, create a TEE file. Source your script in the TEE file. Upload your SCRIPT, TEE file and this document (filled-in) to the drop box/assignment box.

Example: salary DECIMAL(5,2) Would store salary like 999.99 or -999.99

Attribute(s)	Data type description
itemID; itemName; name; street; city; colors	Variable-length string up to 25 characters
state	Char Fixed-length string of 2 characters
zipcode	A variable-length string that could accommodate either of the formats below: '#####-####' or '#####'
cost; retailPrice Make retail Price one digit larger left of the decimal point compared to cost	Decimal(P,D) The DECIMAL (P, D) means that the column can store up to P digits with D decimals. For example, salary DECIMAL(5,2) would store 999.99 or -999.99
notes	Variable-length string up to 255 characters
longDescription	Research the sizes of MEDIUMTEXT and LONGTEXT
returnable; perishable	Tinyint Will store one character so does BOOL
shelfQty	A whole number between 0 and 50,000 for shelfQty. Is the data range for shelfQty to large for a tinyint? Can we use data type UNSIGNED SHORTINT for shelfQty? First, read about UNSIGNED SMALLINT at the website below https://mariadb.com/kb/en/smallint/ That website states what the range of an UNSIGNED SMALLINT is

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	What is that range?
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Appendix A Coding Standards for company A.

Coding Standards

Any place that you work in the technology industry typically has standards for how code is written, which you are expected to follow. This course is no different.

In this homework we would like you to try to adhere to the following coding standards.

Implementation (Coding) Standards:

- One clause per line (SELECT, FROM, WHERE, etc.)
Example:

```
SELECT univID, firstName, lastName
FROM student
WHERE city = "Rochester" AND state = "NY";
```
- Keywords must be in UPPERCASE
- Double quotes for a string literal
- Double quotes for any alias that includes a space
Example:

```
SELECT univID, firstName AS "First Name", lastName AS "Last Name"
FROM student;
```
- Script submission must include a syntactically correct comment with student's name and a syntactically correct comment identifying each task number
 - Comment options include:
 - -- single line comment (a space MUST be included after --)
 - # single line comment
 - /* block comment (can span multiple lines) */
- Script submission must be an executable script file (i.e. only comments and SQL statements).
 - Common violations:
 - Submitting a log file
 - including the MySQL prompt along with the statement
 - including an uncommented resultset
- Table names and attribute names that would otherwise include as space or an underscore as a separator must be in camelCase
 - ID exception: ID is commonly used as an abbreviation for 'identifier'. Attributes that include 'ID' can be stated as attrID, instead of the strict camelCase of attrId