Database Assignment

By Chaewon Im

### Purpose and End User of my database

| The definition of database is “In computing, a database is an organized collection of data stored and accessed electronically. Small databases can be stored on a file system, while large databases are hosted on computer clusters or cloud storage.” The purpose of my database for end users is to help with online shopping(dairy foods) . The customer chose the items they wanted and inserted their address to deliver their order items. |
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### Describe at least 3 implications that are relevant to your database and its use by the end user and why they are important

| state,explain,example,why  The definition of privacy from the dictionary is “The right not to have one’s personal matters disclosed or publicized.” Everyone has their own privacy to keep safe like bank account number, phone number etc… One of the relevant implications that is important is privacy. Privacy in databases is only for the users and the people who are using the database, this personal information has to be kept safe and not leaked to other users because if the personal information like address, number, bank account etc are publicized by people this could be a serious crime. This could lead to our users being doxxed. For example if the users are trying to do online shopping, they need to input their personal information, bank information for the payment, address to deliver their items to their house, name for who it is for ect.. Like this kind of information, because if it gets leaked to other users they could do things like take out your money from your bank account and it could lead to more worst crimes.Therefore we want able to make their privacy informations to be keep safe and secure so the users would put their info safely without leaking the info.  The definition of the functionality is the “ability of the system to do the work for which it was intended.” Another important relevant implication is “Functionality”, when we make the database it is the ability of the program to work if its work we need to know does it work well for the users. For example when the users try to buy the items they need to know where to choose their items,where to type their personal information etc.. we would have to ensure that it works well to give the users what they expected. Functionality is one of the really important relevant implications because it helps the people what they want and it is faster and easier to solve any problem in the database if the ability of functionality works really well.  The definition of usability is “A computer program that is really simple and easy to use to perform desired tasks for humans.” Lastly, usability is the important relevant implication in the database. If the programs are hard to use for programmers or the users there is no point in making or using databases if the people are not going to use them . For example, if there is 20 steps to enter the program or try to get information and then as the people not using hard program there is useless of making programming., but if there are 5 steps of entering for the information of what they want people will use the program more because it is way faster than going through 20 steps of entering and gets same informations as the 5 steps.Therefore the usability is really important it even helps the programmer program easier and helps the users to find the information faster and easier. |
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### Database Design- Your Entity Relationship Diagram.

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### Database Testing Table: SQL Statements

| **Purpose** | **SQL Statement** | **Result Success?** |
| --- | --- | --- |
| Shows the customer id to know what they bought and to know their id | SELECT Item.name, Item.COST, Customers.name, Customers.address FROM sale  JOIN Item ON item.ID = sale.item\_ID  JOIN Customers ON Customers.ID = sale.customer\_ID | yes |
| To show the users the items we have and price. | SELECT Item.name, Item.cost FROM ITEM | yes |
| Order the price smallest to biggest to make the suitable range for customers | SELECT Item.name, Item.cost FROM ITEM  ORDER BY COST | yes |
| Storing the items what customer chose |  |  |
| Customer types their number,address and bank account |  |  |
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### Relevant Implications- Explain how your database addresses the relevant implications that you identified at the start.

| I define the three relevant implications are privacy,functionality and usability.I used these three relevant implications. The privacy will know only the user and it won't leak out to someone else. To be functionable which is to raise the ability of the system I tried to make the code work well. I thought about the variation of what users would put eg I asked users to put down an account number but I range the length to make sure it is the account number not phone number or the other numbers etc..  And for usability I asked the questions in english to make the users understand the questions and get the requirements . |
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### Showcase:

Give evidence of your database and the Python code that interfaces with it. Use screenshots or a short video. Explain how it improved, how it functions, how it was tested etc.

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**Teacher Checklists:**

**AS91879- Develop a digital outcome to manage data**

**Credits: 4**

**NZQA:** [https://www.nzqa.govt.nz/nqfdocs/ncea-resource/achievements/2019/as91883.pd](https://www.nzqa.govt.nz/nqfdocs/ncea-resource/achievements/2019/as91883.pdf)f

| Achieved- Develop a digital outcome to manage data | **Evidence** |  |
| --- | --- | --- |
| using appropriate tools and techniques to structure, organise, query and present data for a purpose and end user | Queries in the db that didn;t get used | Y |
| applying appropriate data integrity and testing procedures | Fair | Y |
| describing relevant implications. |  | Y |
| Merit- Develop an informed digital outcome to manage data |  |  |
| using information from testing procedures to improve the quality and functionality of the outcome | No |  |
| structuring, organising and querying the data logically | No- where is the ability to make a purchase? |  |
| addressing relevant implications. | No |  |
| Excellence- Develop a refined digital outcome to manage data |  |  |
| iterative improvement throughout the development and testing process |  |  |
| presenting the data effectively for the purpose and to meet end-user requirements. |  |  |

**Develop a computer program**

**Credits:** 4 (Internal)

**NZQA:** <http://www.nzqa.govt.nz/nqfdocs/ncea-resource/achievements/2018/as91883.pdf>

| **Achieved**  **Develop a computer program** | **Evidence** |  |
| --- | --- | --- |
| Wrote a program that performs a specific task using a suitable programming language | Just about if the purpose is just viewing data | Y |
| Set out the program code clearly | No- the main loop is not at the end of the functions- fix it and re-submit for achieved.  And the last function information\_customer is not functional or useful.  EDIT: You seem a little vague about what your code is doing? The logic, flow and purpose seems muddled. Shouldn’t you get the customer information before allowing them to order something? And shouldn;t you at least confirm what they have ordered before exiting the program? And why are you even bothering to ask them for an account number? How are they supposed to know that?  I think you should fix this in your own time- you are a good programmer and it’s close but not quite logical enough for Achieved. | FIX |
| Documented the program with comments | Yes | Y |
| Tested and debugged to ensure that it works on a sample of expected cases | Yes but limited functionality. | Y |
| **Merit**  **Develop an informed computer program** |  |  |
| Documented the program with variable names and comments that describe code function and behaviour |  |  |
| Following conventions of the chosen programming language |  |  |
| Tested and debugged the program in an organised way to ensure it works on expected and relevant boundary cases |  |  |
| **Excellence**  **Develop a refined computer program** |  |  |
| Ensured the program is a well structured logical solution to the task |  |  |
| Making the program flexible and robust |  |  |
| Comprehensively tested and debugged the program |  |  |

Comments:

Final grades will be decided using professional judgement based on a holistic examination of the evidence provided against the criteria in the Achievement Standard.