Assignment 5

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Choose one exercise each from Chapters 13, 14, 15, and 16

Chapter 13

9. Do you think that inclusion of the following parameters in the McBurgers model would or would not increase the accuracy of the model and its abiliity to predit real-world behavior.

1. Age of the customer
2. Sex of the customer
3. Height of the customer

1. Age plays a factor in overall service time. Speaking from experience, older populations tend to come in larger groups and order a large amounts of coffee but don't order much food. Older populations also tend to pay in cash more often which tends to be slower then using a card. Younger people tend to get less predictable orders when compared to more regular, older, customers. People in their 30's-40's are the more likely to be ordering for a group. Overall, I think including age would increase the accuracy of the model.

2. I don't believe sex plays much of a factor. Females on average might require less food, but I don't believe it's significant enough to make a difference. Fast food restaurants try to have a regular service time for all the food that comes out so the quantity for a single person doesn't really matter.

3. Height could play a factor in the model. While on a small level it may be insignificant, but countries with dramatic height differences could show an overall difference in portion size which may effect how much food someone would purchase or expected portion sizes of the food.

Chapter 14

4. Using the Employees table of Figure 14.6 what is the result of the following SQL query?

SELECT * FROM Employees
WHERE HoursWorked < 100;

We can break this query into 2 steps

* SELECT * FROM Employees - Grab all attributes of each entity from the employees table.

* WHERE HourseWorked < 100; - Where the HoursWorked coloumn attribute is less than 100 hours.

Our output should look like this:

ID	LastName	FirstName	BirthDate	PayRate	HoursWorked
116	Kay	Janet	3/29/1976	$16.60	94
165	Honou	Morris	6/9/1993	$6.70	53

Chapter 15

1. An argument called the Chinese Room argument (similar in many ways to the Turing test) challenges whether true artificial intelligence is even possible. This argument has provoked much discussion, and many replies that claim to refute it.

a. Describe the Chinese Room argument

A person is inside a room with a program on how to respond to Chinese symbols slipped underneath the door. The person cannot themselves understand the symbols but by following the program and manipulating the symbols, they are able respond back correctly to the symbols. This will lead to people outside the room to believe there is a Chinese speaker in the room.
This concludes that a computer can be programmed to appear to understand language but it reality does not. A computer is simply following syntactical rules without really understanding.

b. Pick one of the replies and describe it. Does it seem to invalidate the Chinese Room argument.

The Robot Reply concedes to the the Chinese Room argument but believes in externalism. The reply suggests that if we create a robot that can move around and has sensor for various inputs such as light, touch, and sound, that the robot could learn things the way a child does, by association. The reply believes that indeed a computer in a room only processing symbols could not truly understand a language because it lacks an ability to associate and learn what symbols actually relate to. The reply does not invalidate the example of a computer in a locked room but it does invalidate that a computer cannot truly understand language.

Chapter 16

10. Would a flight simulator package used to teach pilots to fly an airplane be a real-time graphical environment? Explain your answer.

A real-time flight simulator would be the most useful to a pilot in training.

Imagine a flight simulator where you could not control the plane or had to wait hours to see the result of ones actions. Potentially, there could be some use for static CGI simulations. For example, the pilot watches the simulation and is instructed to make decisions based on what is occuring on the screen which is later graded afterword. A static graphical simulation could also potentially have more detail and accuracy, but ultimately, real-time graphics would be of more use.

With real-time graphics, the simulation would respond insantaneuosly to the users actions which would be more in tune to actually flying an aircraft. Decisions would have to be in real-time and the simulation could still have many of the important factors of real flying, especially with increased computing power. Real-time graphics could also more readily provide different flights and situations for pilots to train on.