Slide 1

Analysis of the
Seattle Central Community Health Clinic

FIT 100

Slide 2

FIT 100 The Seattle Central Community Health Clinic

- ❖ The SCCHC is a fictitious walk-in health clinic offering lab tests for drugs, HIV, AIDS, and other diseases

- ❖ It is staffed by volunteer health professionals and a volunteer receptionist … there is no need to be concerned with issues of billing or payroll

- ❖ The lab testing is not performed on-site, but contracted out to Seattle labs and hospitals

- ❖ The goal of our effort is to provide all the database facilities needed to support all aspects of client processing and testing

- ❖ Databases and business systems are best developed by considering how an organization operates

Slide 3

FIT 100 Consider the Day-to-Day Operations

- ❖ Start with the client entering ….
  - □ The receptionist gathers contact information from the client and enters in the client record; if a client has visited before, then the original information verified
  - □ The receptionist "queues" the client to see one of the health professionals working that day
  - □ After a wait, the client sees the health professional who fills out a chart with a brief medical history and orders the tests to be run. This chart may an electronic form or a print out of that form
  - □ The client specimens are labeled
  - □ At the end of the day the specimens for each test are grouped and compared against a manifest that lists all of the tests of that type ordered that day and sent out
  - □ The results are returned and recorded in each client's record
    - = The outcomes are: positive, negative, failed or inconclusive, and exceptional

Slide 4

FIT 100 Needs Analysis

- ❖ Review the operation of the clinic to determine what tasks need to be supported by the database system …
  - □ Enter client data
  - □ Set up client for visit with health professional for that day
  - □ Health professional fills out consultation chart
  - □ Order tests
  - □ Label specimens
  - □ Compare specimens to manifest
  - □ Record results from test outcome
  - □ Reply letter composed   Not part of Project 4
  - □ Quarterly stats composed   Not part of Project 4
  - □ Records archived   Not part of Project 4

Slide 5

FIT 100 Enter Client Data

- ❖ You need a table and a form for capturing client data
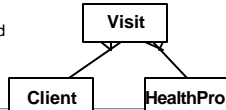

Slide 6

FIT 100 Match a Client with a Health Professional

- ❖ The reference to a health professional implies that the volunteers at the clinic should be recorded….what data should be saved?
  - □ Contact info
  - □ Medical license information
  - □ Home office or hospital
  - □ ?

- ❖ Define a table and a form for capturing the data

FIT 100 Additional Issues with setting up the Meeting between Client and Health Pro

- ❖ What does this mean in this database? In the Clinic?
    - ☐ Associating a client with the health professional that will see him or her
    - ☐ We can record these associations in our database…they are the instance of a client "seeing" a health professional. It will be called a Visit
    - ☐ What is the relevant Visit data?
        - ▬ Client, but only the key is needed
        - ▬ Health Professional, key only
        - ▬ Date of Visit
            - – (current day by default)

Visit

Client   **HealthPro**

▦ Visit : Table

Field Name	Data Type	
VisitID	AutoNumber	Automatically generated Primary Key
HealthProID	Number	Foreign Key that is associated with HealthPro Primary Key
ClientID	Number	Foreign Key that is associated with Client Primary Key
DateOfVisit	Date/Time	Date of Visit; Default is current Date

FIT 100 Fundamental Concept

- ❖ Notice that the database design contains tables for "things" such as the Client table and the Health Professional table

- ❖ These tables represent information about entities

- ❖ The Visit table is different in an important way…

- ❖ It represents information about a relationship between entities, specifically that the Client and the Health Professional are connected or associated by a Visit.
    - ☐ Pairing together the keys of the related entities is how it is done

- ❖ The relational database model represents information about entities and relationships

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FIT 100 Filling out the Chart

- ❖ During the visit the health professional will ask the client questions and discover information … where will this information be recorded?

- ❖ Visits – it represents the event of the client seeing the health professional, making Visits the most logical location

- ❖ What information will be gathered?
    - ☐ History – what is the relevant past medical data?
    - ☐ Symptoms – what's wrong now?
    - ☐ Notes – observations about the patient, comments
    - ☐ Tests required

FIT 100 Ordering Tests

- ❖ Ordering tests can be seen as the final action taken by a health professional during a visit with a client

- ❖ What activities are created by ordering the test
    - ☐ Collecting specimens … not an IT task ☺
    - ☐ Labeling specimens

- ❖ The label must ..
    - ☐ Uniquely identify the client, but respect privacy
    - ☐ Must specify the test to be run
    - ☐ Must identify the SCCHC

- ❖ Creating the tracking number is a task initiated during the Visit with the Health Professional

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FIT 100 Compare to Manifest

- ❖ A manifest is a list of thinks that are supposed to be in a package

- ❖ When the specimens are sent to the lab at the end of the day, there must be a separate list of all the specimens collected for each test…
    - ☐ What information is on the list?
    - ☐ How is the information created?

- ❖ A manifest for a given day for a given test can be created by selecting all those records that have the proper date and have the test checked… creating a new virtual table
    - ☐ A virtual table of information gathered from one or more tables is known as a view

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FIT 100 SCCHC Database Design: Summary

- ❖ The three primary tables have been defined:
    - ☐ tblClient, tblHealthPro and tblVisit

- ❖ The concept of representing entities and relationships in tables has been more fully explained.

- ❖ Next week we will discuss in more detail how to gather data together from one or more tables.

FIT 100 For Next Week

❖ Read your Project Description

❖ Work on Project 4, Part 1

❖ Enjoy your Thanksgiving Weekend!!!!!!
  ☐ Eat much food
  ☐ Drink many liquids
  ☐ Consume multiple desserts
  ☐ Enjoy you favorite activities
  ☐ But remember:
    ```
    IF foodConsumption ="too much turkey" Then
        bodyPosition = "food coma"
    End If
    ```