Central District Clinic

The design of the Central District Clinic database system requires further specification

FIT 100

Recall The CDC Operation

- At the CDC there are various operations, some performed on a per/client cycle, others performed at larger intervals
  - Enter client data
  - Queue client for health professional
  - Fill out chart
  - Order tests
  - Label Specimens
  - Specimens compared to manifest
  - Results recorded in client record
  - Reply letter composed
  - Quarterly statistics compiled
  - Records archived

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The Problem of Queuing

- When the receptionist finishes filling out the Clients form, the client is queued for the medical professional
- What does it mean in database terms to “queue” someone? [This isn’t a standard idea, its just something that we need to invent for this project.]
- Recall that queuing established the relationship between a client and a medical professional … we represent one of these relationships by a row in the Visits table, so ...

> Queuing must involve creating a row in the Visits table with the initial data of a client and a med pro

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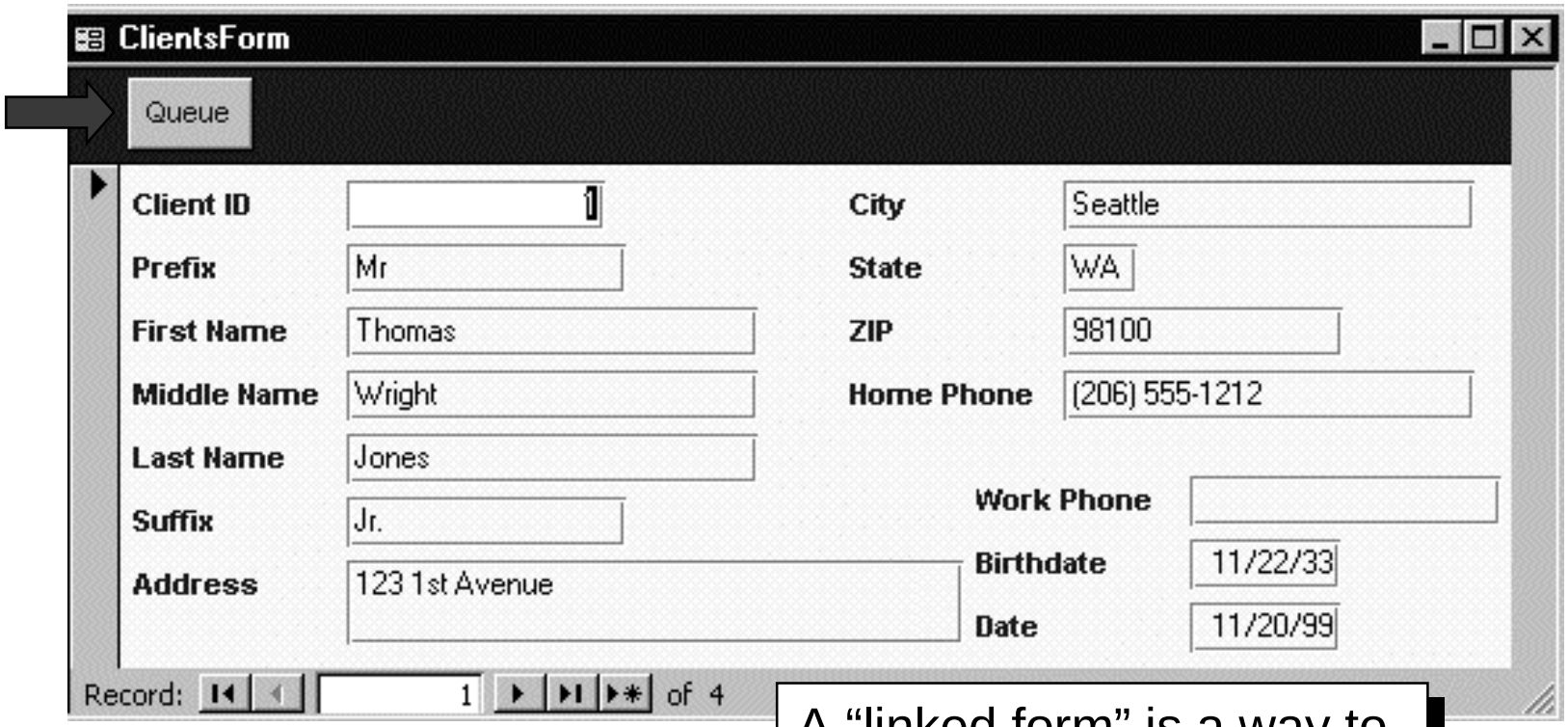
Construct A Client's Form To Queue

- Once the data is entered on the Client form, the receptionist must choose a medical professional



A "linked form" is a way to put data into another table

FIT 100 Clicking on Queue ...

- Clicking on Queue brings up a miniform with 3 fields in it from the Visits table, not from the Clients table

- Pairing the client and the medical professional creates the relationship we want to represent, so ...

By entering the medical professional's ID and the Client's ID the receptionist sets up the visit for the client AND sets up the row in Visits to record the data for the visit

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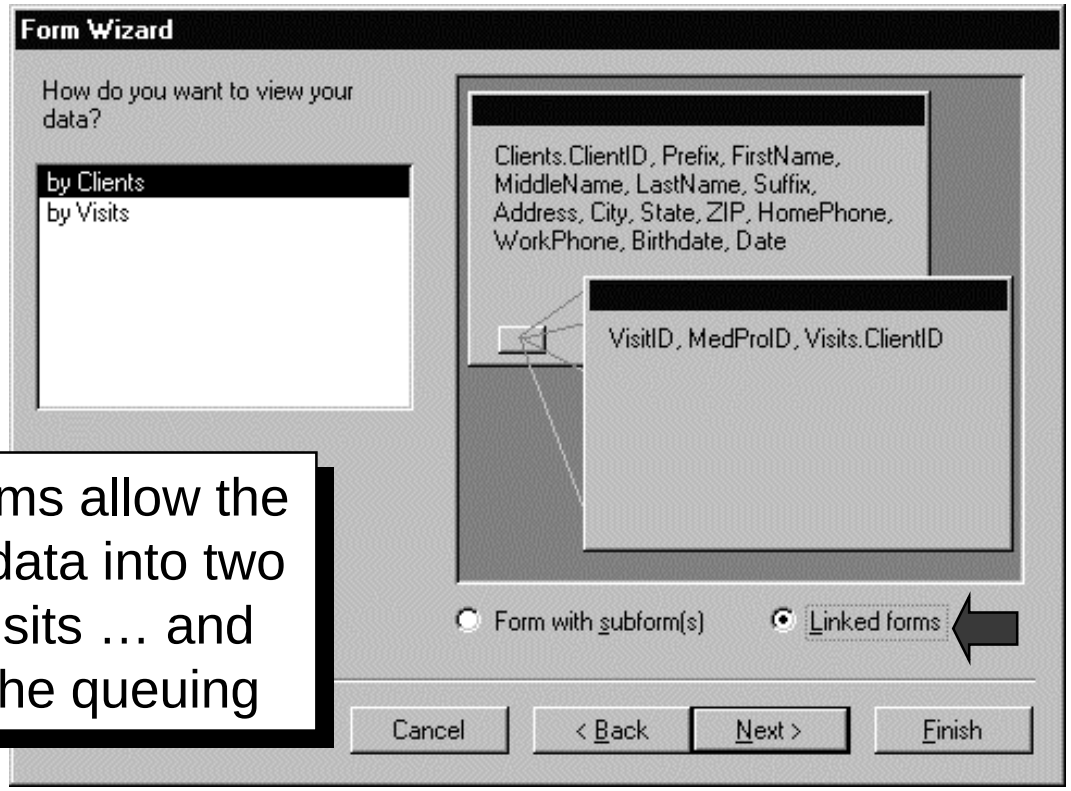
Getting A Linked Form

- When working in the form wizard follow these steps to get the linked form for the queuing:
  - Move all of the fields from Clients to the form
  - Move the three fields from Visits: VisitID, MedProID, ClientID
  - When queried for how you want the two table's data displayed, say linked form



Summary: Linked forms allow the receptionist to enter data into two tables: Clients and Visits … and the Visits entries do the queuing

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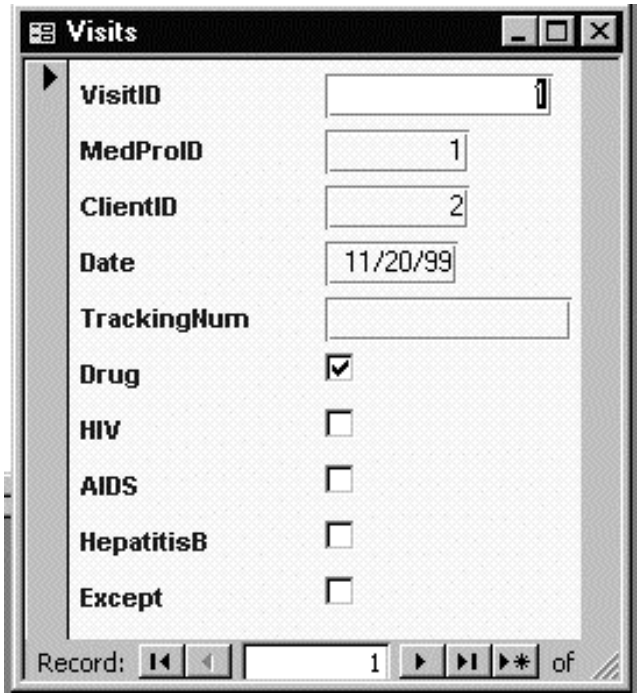
Handling Tests

- There are two aspects to a test request:
  - The information that a test is requested
  - The outcome of the test
- The two aspects could be handled in a single field, but will be treated separately
  - For each <test>, there is a <test>R checkbox field for the request
  - For each <test>, there is a <test>O text field for the outcome
- On the form, only the request checkboxes are shown



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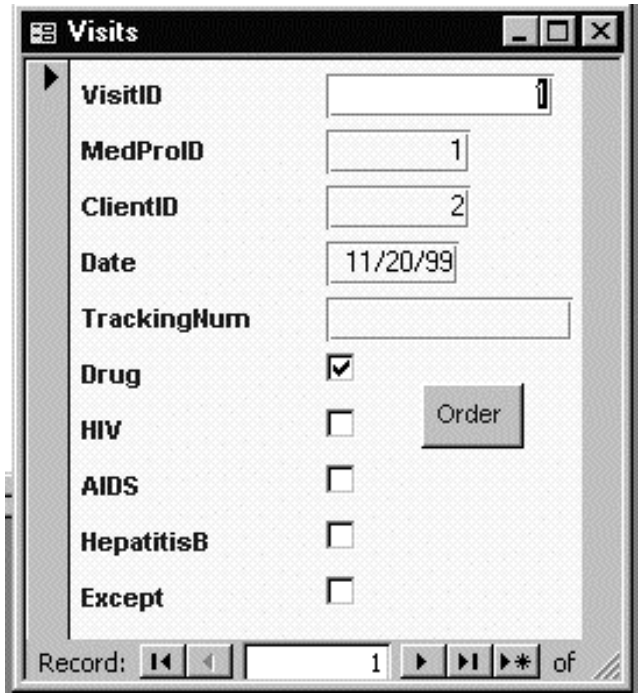
Ordering

- The final act of a visit is for the medical professional to “order” the tests
- The action of ordering in the database system is to create the client’s tracking number
- This involves adding a command button control and programming the creation of the tracking number



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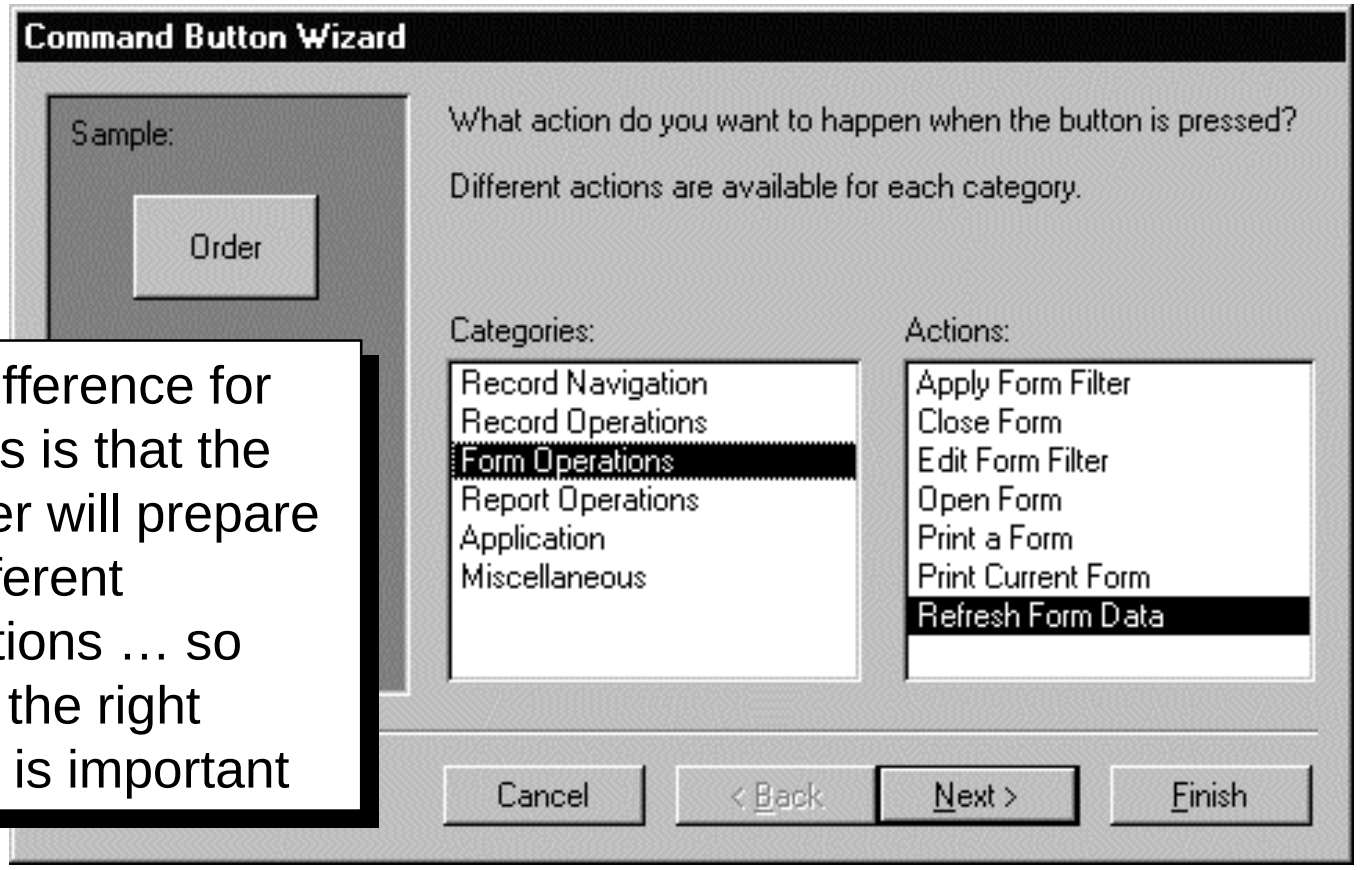
The Order Button

- Like any command button control, the programmer places it on the form and programs the event handler



The difference for Access is that the handler will prepare for different operations … so select the right option is important

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Computing Tracking Number

- The “preloaded” command event handler has code:

```
Option Compare Database
Option Explicit

Private Sub cmdOrder_Click()
On Error GoTo Err_cmdOrder_Click

                    Tracking number computation here

   DoCmd.DoMenuItem acFormBar, acRecordsMenu, 5, , acMenuVer70

Exit_cmdOrder_Click:
   Exit Sub

Err_cmdOrder_Click:
   MsgBox Err.Description
   Resume Exit_cmdOrder_Click

End Sub
```

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Entering Tracking Number

- The tracking number field is something the user cannot enter (locked field) and cannot change …

```
Tracking.SetFocus
Tracking.Locked = False
Tracking.Text = “CDC” & Hex((12*(Year(Date)-Year(“11/20/99”)
                              + Month(Date)) * 1000000 + VisitID)
Tracking.Locked = True
```

- What is the tracking number in English?
- It is the letters “CDC” followed by the computer’s hexadecimal encoding of the number of months since the creation of this program followed by the VisitID

The tracking number is reversible, but not easily associated with a person or a visit

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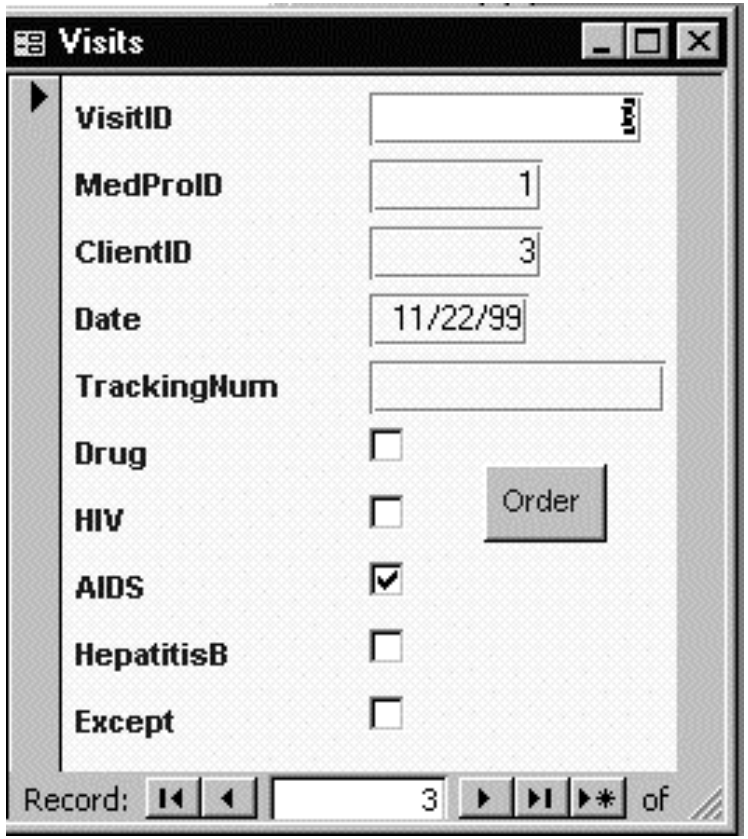
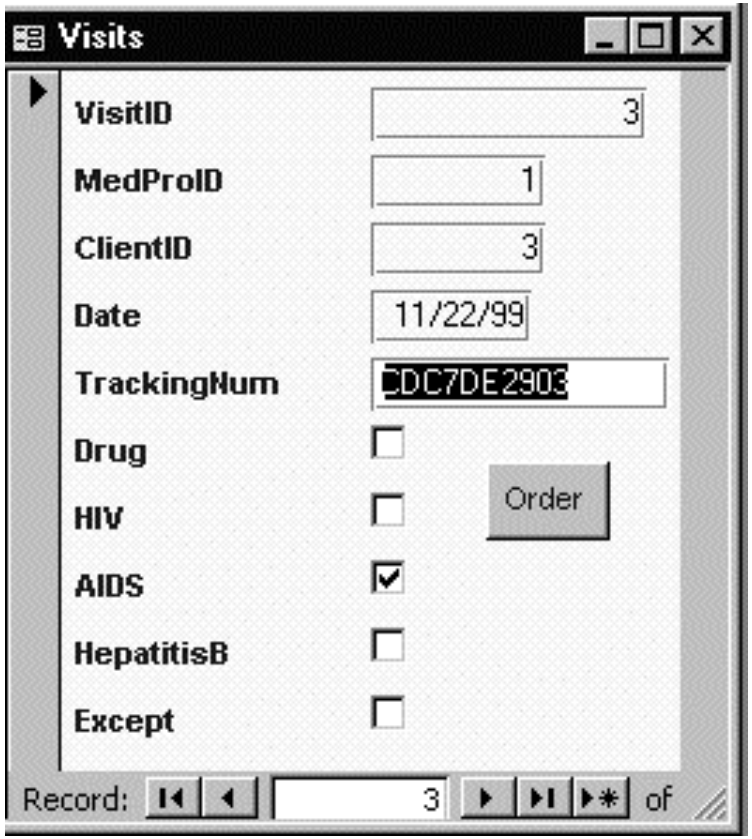
The Results ...

- Click on Order to create tracking number





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Form Commands

- Other activities of the CDC database system can make use of form command buttons
  - Clear -- it is possible to remove all of the text on a form before it goes into the database … this would be advantageous in case the receptionist goofs up badly or someone just gets up and walks out
  - Print Labels -- it is possible to print out the specimen labels on command from the Visits form

FIT 100 Summary

- A series of critical operations for the clinic database
  - Queuing … setting up the relationship in Visits
  - Handling tests
  - Ordering tests
  - Developing the tracking number
  - More command buttons
- And there is still more ...